



CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE &  
PLANNING

# GRID IMPLEMENTATION PLAN 2023 - 2028

---

## STRATEGIC ENVIRONMENTAL ASSESSMENT – ENVIRONMENTAL REPORT

---

Prepared for: EirGrid



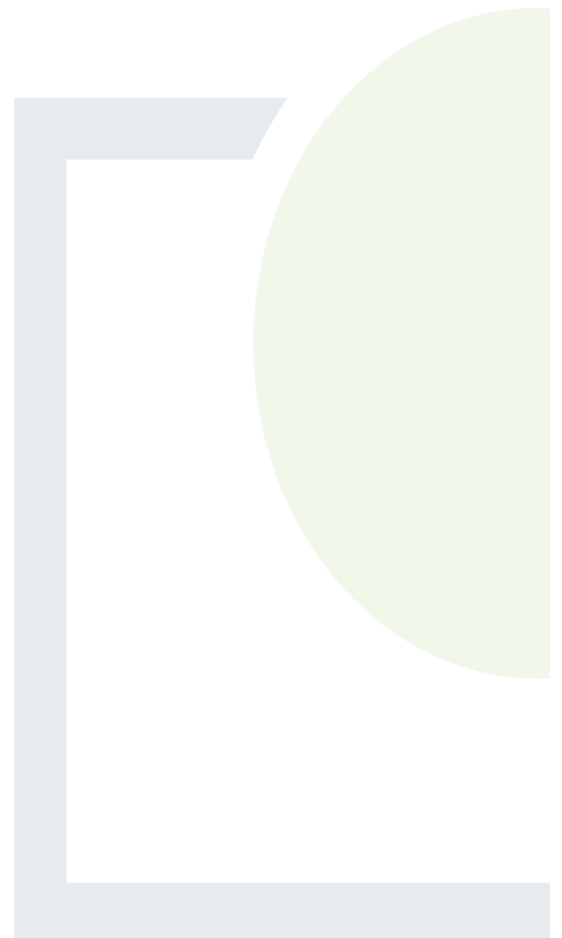
Date: September 2023

Core House, Pouladuff Road, Cork, T12 D773, Ireland

T: +353 21 496 4133 | E: [info@ftco.ie](mailto:info@ftco.ie)

CORK | DUBLIN | CARLOW

[www.fehilytimoney.ie](http://www.fehilytimoney.ie)



## STRATEGIC ENVIRONMENTAL ASSESSMENT – ENVIRONMENTAL REPORT

### REVISION CONTROL TABLE, CLIENT, KEYWORDS AND ABSTRACT

User is responsible for Checking the Revision Status of This Document

Rev. No.	Description of Changes	Prepared by:	Checked by:	Approved by:	Date:
A	Draft	AT/CC/CA/MG/SJ	AT	JH	28/09/2023

**Client:** EirGrid

**Keywords:** Strategic Environmental Assessment, SEA, Environmental Report, Scoping, EirGrid, National Grid, Grid Implementation Plan.

**Abstract:** Fehily Timoney and Company is pleased to submit this Draft SEA ER to EirGrid for public display.

## TABLE OF CONTENTS

<b>1. NON-TECHNICAL SUMMARY</b>	<b>8</b>
1.1 Introduction	8
1.2 Draft Grid Implementation Plan	8
1.2.1 Draft Grid IP Objectives	9
1.2.2 Context setting background to EirGrid 's Role and the Implementation Strategy	10
1.2.3 Alternatives	11
1.3 Strategic Environmental Assessment	11
1.4 Appropriate Assessment (AA)	12
1.5 Consultation	12
1.6 Baseline Information - Current State of the Environment & Future Trends	12
1.7 Other Plans and Projects	16
1.8 SEA Objectives	17
1.9 Assessment of the Draft Grid IP	19
1.9.1 Inherent Mitigation	19
1.9.2 Policies and Objectives	19
1.9.3 Transmission Development Projects	20
1.9.4 Data Gaps and Limitations	20
1.10 SEA Mitigation and Recommendations	21
1.11 SEA Monitoring	21
1.12 Conclusion	21
<b>2. INTRODUCTION</b>	<b>22</b>
2.1 Introduction and Terms of Reference	22
2.2 SEA Directive and its transposition into Irish Law	22
2.3 Purpose and Structure of this Report	22
2.4 Appropriate Assessment	23
<b>3. GRID IMPLEMENTATION PLAN 2023 – 2028</b>	<b>25</b>
3.1 Overview	25
3.2 Context setting background to EirGrid 's Role and the Implementation Strategy	25
3.3 Changes to EirGrid 's Role (Offshore) with regard to the draft Implementation Strategy	31
3.4 Purpose and Scope of the GRID Implementation Plan 2023-2028	31
3.4.1 Need for the Plan	31
3.4.2 Objectives of the Draft Grid IP	33

3.4.3	Draft Grid IP Geographical Scale .....	33
3.4.4	The Draft Grid IP Temporal Scale .....	35
3.4.5	Public Engagement.....	35
<b>4. STRATEGIC ENVIRONMENTAL ASSESSMENT METHODOLOGY .....</b>		<b>37</b>
4.1	The Requirement for SEA .....	37
4.2	The SEA Process.....	37
4.2.1	Appropriate Assessment (AA) .....	38
4.2.2	SEA – Stage 3 (Current Stage) .....	41
4.2.3	SEA Study Area .....	41
4.2.4	Transboundary Effects .....	44
4.2.5	Integrating the SEA, AA and the Draft Grid IP.....	45
4.3	Progress since the Grid Implementation Plan 2017-2022 and associated SEA/AA.....	45
4.3.1	Transmission Development Process .....	45
4.4	Plan Alternatives.....	46
4.5	Scenario Planning .....	46
<b>5. CONSULTATION .....</b>		<b>48</b>
5.1	Background.....	48
5.2	Consultations with environmental authorities.....	48
5.3	Stakeholder Consultation on the Draft Grid IP and Environmental Assessments .....	50
5.3.1	Public Consultation .....	51
<b>6. BASELINE INFORMATION.....</b>		<b>52</b>
6.1	Introduction.....	52
6.2	Population, Human Health and the Economy .....	53
6.2.1	Introduction .....	53
6.2.2	Current Conditions .....	53
	Key Issues and Interactions with the Plan.....	57
6.3	Biodiversity, Flora and Fauna .....	57
6.3.1	Current Conditions .....	57
6.3.2	Future Trends (Evolution of the Baseline) .....	65
6.3.3	Key Interactions with the Plan .....	65
6.1	Landscape, Seascape and Visual Amenity .....	66
6.1.1	Current Conditions .....	66
6.1.2	Future Trends (Evolution of the Baseline) .....	67

6.1.3	Key Interactions with the Plan .....	68
6.2	Cultural Heritage - Archaeology & Architectural .....	68
6.2.1	Existing Conditions .....	68
6.2.2	Future Trends (Evolution of the Baseline) .....	71
6.2.3	Key Interactions with the Plan .....	71
6.3	Geology and Soils .....	71
6.3.1	Current Conditions .....	71
6.3.2	Future Trends (Evolution of the Baseline).....	74
6.3.3	Key Interactions with the Plan .....	74
6.4	Land Use .....	74
6.4.1	Current Conditions .....	74
6.4.2	Future Trends (Evolution of the Baseline) .....	77
6.4.3	Key Interactions with the Plan .....	79
6.5	Air Quality and Noise .....	79
6.5.1	Existing Conditions .....	79
6.5.2	Future Trends (Evolution of the Baseline) .....	80
6.5.3	Key Interactions with the Plan .....	80
6.6	Water.....	81
6.6.1	Current Conditions .....	81
6.6.2	Future Trends (Evolution of the Baseline) .....	82
6.6.3	Key Interactions with the Plan .....	82
6.7	Materials Assets and Infrastructure .....	82
6.7.1	Existing Conditions .....	82
6.7.2	Energy Related Material Assets and Infrastructure .....	83
6.7.3	Future Trends (Evolution of the Baseline) .....	86
6.7.4	Key Interactions with the Plan .....	86
6.8	Tourism and Recreation .....	86
6.8.1	Existing Conditions .....	86
6.8.2	Future Trends (Evolution of the Baseline) .....	87
6.8.3	Key Interactions with the Plan .....	88
6.1	Climate Change.....	88
6.1.1	Background.....	88
6.1.2	Future Trends (Evolution of the Baseline) .....	90
6.1.3	Key Interactions with the Plan .....	90

6.2	Transboundary Issues.....	90
6.2.1	Key Interactions with the Plan .....	93
<b>7.</b>	<b>PROGRAMME, PLAN AND POLICY REVIEW .....</b>	<b>95</b>
7.1	Introduction.....	95
<b>8.</b>	<b>KEY ENVIRONMENTAL ISSUES .....</b>	<b>99</b>
<b>9.</b>	<b>SEA STRATEGIC ENVIRONMENTAL OBJECTIVES .....</b>	<b>103</b>
9.1	Introduction.....	103
<b>10.</b>	<b>ASSESSMENT METHODOLOGY .....</b>	<b>106</b>
10.1	Scoping and Consultation Feedback.....	106
10.2	Influencing the Draft Grid IP through SEA.....	106
10.3	SEA Assessment Criteria .....	107
10.4	Inter-Relationships & Cumulative Effects.....	107
10.5	Appropriate Assessment .....	108
10.6	Data Gaps and Limitations.....	108
<b>11.</b>	<b>ASSESSMENT OF THE GRID IP.....</b>	<b>110</b>
11.1	Introduction.....	110
11.2	Inherent Mitigation .....	111
11.2.1	EirGrid In-House Processes and Procedures .....	112
11.2.2	Best Practice during Construction.....	114
11.3	Draft Grid IP Assessment.....	115
11.3.1	Assessment of Objectives and Policies.....	116
11.4	Grid Development under the Draft Grid IP .....	145
11.5	Assessment of Alternatives .....	148
11.5.1	Effects Common to all Alternatives.....	148
11.5.2	Effects from each of the Alternatives .....	150
11.6	Inter-Relationship and Cumulative Assessment.....	157
11.6.1	Inter-Relationship between Individual Environmental Components .....	159
11.6.2	Inter-Relationship with other Plans and Strategies .....	160
11.6.3	Cumulative Effects with other Projects.....	165
<b>12.</b>	<b>MITIGATION MEASURES.....</b>	<b>166</b>
12.1	Introduction.....	166

12.2	Early work undertaken by the Authority to ensure contribution towards environmental protection and sustainable development .....	166
12.3	Integration of individual measures into the Plan.....	167
13.	MONITORING FRAMEWORK .....	184
14.	CONCLUSION .....	196
14.1	Response to Consultation.....	198
14.2	Next Steps.....	198
	LIST OF ABBREVIATIONS .....	199
	GLOSSARY .....	203
	REFERENCES.....	207

## LIST OF APPENDICES

Appendix A:	Relevant Legislation, Plans and Programmes
Appendix B:	Full List Of Projects within the Draft IP
Appendix C:	SEA Scoping Submission Summary
Appendix D:	Baseline Data Sources
Appendix E:	Summary of EBES studies

## LIST OF FIGURES

	<u>Page</u>
Figure 3-1: NUTS 2 Planning Areas .....	27
Figure 3-2: NUTS 3 Planning Areas .....	28
Figure 3-3: International infrastructure showing the interconnectors (Source: EirGrid ).....	29
Figure 3-4: The National Transmission System at a national scale showing the existing network (Source: EirGrid )	30
Figure 3-5: SEA Study Area .....	35
Figure 3-6 Progression of Grid25 Strategy and associated Implementation plans, Environmental Appraisal Reports and Transmission Development Plans .....	36
Figure 4-1: SEA/AA Stages and Key Deliverables.....	39
Figure 4-2 SEA/AA Process overview.....	40
Figure 4-3: Overview of Stage 3 of the SEA Process for the Draft Grid IP .....	42
Figure 4-4: SEA Study Area .....	44
Figure 6-1 Major Settlement Patterns within Ireland (Source: OSI) .....	56
Figure 6-2: Special Areas of Conservation and Special Protection Areas in Ireland (Source: NPWS) overlaid with the existing grid .....	63
Figure 6-3: Natural Heritage Areas and proposed Natural Heritage Areas in Ireland (Source: NPWS) overlaid with the existing grid .....	65
Figure 6-4 Archaeological heritage sites .....	70
Figure 6-5: Geology of Ireland (Source: GSI) .....	73
Figure 6-6 Comparison of percentage national area at Level 1 class groupings for NLC 2018 and CORINE 2018.	75
Figure 6-7 Overview of the percentage of national area that each NLC 2018 Level 2 class represents...76	76
Figure 6-8: Land Use of Ireland (Source: EPA-CORINE November 2022) .....	79
Figure 6-9 Existing wind and solar energy projects.....	85
Figure 11-1 Visual summary of the assessment of the Draft Grid IP policies and objectives .....	143

## LIST OF TABLES

	<u>Page</u>
Table 4-1 Planning scenarios.....	46
Table 6-1 Population of Administrative Counties - between 2016 and 2022 (Source: CSO, 2022 ) .....	54
Table 6-2 Self Perceived Health Survey (Source: CSO, 202027).....	55
Table 6-3: Length of the existing transition network within protected sites.....	60
Table 6-4: Red and Amber Bird Types .....	61
Table 6-5: Northern Ireland Baseline Environment .....	90
Table 7-1: List of the Programmes, Plans and Policies relevant to SEO Theme – for more plans and programmes see Appendix A .....	96
Table 8-1: Environmental Issues Relevant to the Draft Grid IP.....	100
Table 9-1: Strategic Environmental Objectives .....	104



Table 10-1:	SEA Assessment Criteria.....	107
Table 11-1:	Grid Development Planning Process.....	111
Table 11-2:	Criteria for appraising the effect of Plan provisions on SEOs.....	116
Table 11-3:	Policy Assessment .....	117
Table 11-4:	Objectives Assessment.....	132
Table 11-5:	Overall assessment of policies and objectives in relation to the SEOs .....	144
Table 11-6:	Projects considered within the Draft Grid IP of scale relevant to the high level assessment process	147
Table 11-7:	Effects Common to All Alternatives .....	148
Table 11-8:	Overview of considerations for each of the plan alternatives.....	151
Table 11-9:	Plan Alternatives Assessment .....	152
Table 11-10:	Reasons for selecting the Draft Grid IP .....	154
Table 11-11:	Considerations for future Scenarios.....	156
Table 11-12:	Inter-Relationship between Environmental Components .....	160
Table 11-13:	Inter-Relationships between the Draft Grid IP and the External Plans (See Appendix A for Full Details)	161
Table 12-1:	Policies incorporated into the Draft Grid IP to mitigate (avoid or minimise) potential impacts from the implementation process – with context provided with regard to the environmental relative effects on the environmental components.....	168
Table 12-2:	Objectives incorporated into the Draft Grid IP to mitigate (avoid or minimise) potential impacts from the implementation process – with context provided with regard to the environmental relative effects on the environmental components.....	177
Table 12-3:	Examples of SEA/AA recommendations included within the Draft Grid IP – Green text is additional text, strike through text reflects words removed .....	181
Table 13-1:	Key Monitoring Recommendations from EirGrid’s SEA Monitoring Report of the Grid IP 2017-2022	185
Table 13-1:	SEA Objectives, Target and Indicators: Monitoring Framework .....	187

## 1. NON-TECHNICAL SUMMARY

### 1.1 Introduction

Strategic Environmental Assessment (SEA) is a process that aims to provide a high level of protection to the environment, integrating environmental consideration into the preparation and adoption of plans. It promotes sustainable development for plans. This Environmental Report sets out the high-level assessment that has been undertaken for the Grid Implementation Plan 2023-2027 (Draft Grid IP). The findings of the assessments are published with the Draft Grid IP and a Natura Impact Statement (NIS) for public comment.

EirGrid plc. (EirGrid) is the national electricity Transmission System Operator (TSO). In its role as TSO in Ireland, EirGrid operates and maintains a safe, secure, reliable, economical and efficient transmission system. EirGrid develops key infrastructural projects - High Voltage (110, 220, 275, and 400 kV) - which are vital for the socio-economic development of the State, with due regard for the environment. The Electricity Supply Board (ESB), as the Transmission Asset Owner (TAO), is charged with constructing the transmission assets as specified by the TSO. ESB also has the role of Distribution System Operator (DSO).

In 2021, EirGrid was designated as the system operator and asset owner of Ireland's offshore electricity transmission system, with ownership resting with EirGrid at all stages of the phased transition, regardless of whether the grid has been developed by individual renewable energy projects or EirGrid.

Electricity supply is essential, and a reliable electricity network is the means by which we move electricity around the country. The transmission system is the backbone of the power system; efficiently delivering large amounts of power from where it is generated to where it is needed, safely and reliably. The development of transmission network infrastructure is therefore, of national strategic importance.

EirGrid previously published the GRID25 strategy in 2008, which was then replaced by the Your Grid, Your Tomorrow: Ireland's Grid Development Strategy (2016). To date, there have been two iterations of GRID Implementation Plans (IPs) following publication of these strategies, the latest of which is the 2017-2022 Plan. The Grid IP 2023-2028 will be the third IP, which will sit under EirGrid's Shaping Our Electricity Future Roadmap 2030.

The particular projects to be delivered under the forthcoming Draft Grid IP have been set out in EirGrid's latest Transmission Development Plan (TDP) 2022-2032<sup>1</sup> and the Network Development Portfolio<sup>2</sup> which is published with updates quarterly, most recently in July 2023. The Draft Grid IP aligns with the strategic policies in Shaping our Electricity Future (2023 v 1.1)<sup>3</sup>.

### 1.2 Draft Grid Implementation Plan

The Draft Grid IP identifies, at a strategic level, parts of the transmission system that are likely to be developed over the next six years. It identifies the issues, policies and objectives that will guide in developing the grid. It also provides a list of projects envisaged to be developed over the cycle of the plan. The Draft Grid IP covers the five-year period from 2023 up to 2028.

---

<sup>1</sup> [https://cruie-live-96ca64acab2247eca8a850a7e54b-5b34f62.divio-media.com/documents/CRU202321\\_TDP\\_2023\\_-\\_2032.pdf](https://cruie-live-96ca64acab2247eca8a850a7e54b-5b34f62.divio-media.com/documents/CRU202321_TDP_2023_-_2032.pdf)

<sup>2</sup> <https://www.eirgridgroup.com/customer-and-industry/general-customer-information/network-delivery-portfolio/>

<sup>3</sup> <https://www.eirgridgroup.com/the-grid/shaping-our-electricity-f/>

The Draft SEA ER was published alongside the Draft Grid IP for public consultation and will be amended in light of the comments received.

The Draft Grid IP covers the Republic of Ireland including the EEZ; however, the Draft Grid IP and the SEA documents have carefully considered grid development, and likely significant environmental effects of a transboundary nature, including the various existing and planned electricity interconnectors between Ireland, Northern Ireland, Great Britain and France.

The scope of this IP will have three defined aspects due to the development of the sector and evolving role of EirGrid nationally during the lifetime of the forthcoming IP:

- Onshore development of the grid network;
- Offshore development of the grid network; and
- Temporary emergency generation development.

It is recognised that the likely environmental envelope of potential effects for each of the 3 aspects will be different given the spatial scope and nature of any associated developments. These three elements or aspects are expanded below where relevant - in the context of EirGrid 's role.

#### 1.2.1 Draft Grid IP Objectives

The overall objectives of the Draft Grid IP are to:

- To realise the vision for grid development set out in EirGrid 's Grid Development Strategy the Shaping Our Electricity Future Report and the Transmission Development Plan (TDP) 2021- 2030;
- To review the IP prepared in 2017 and to update it in the context of the Grid Development Strategy, the Shaping Our Electricity Future Report the policies of the published TDP 2022-2032, and policies, processes and approaches that have been developed in the interim;
- To examine the successes and challenges encountered in the previous IP and to integrate the lessons learned into the new IP; the existing SEA Monitoring Programme can inform this process;
- To identify and discuss the strategic environmental, social, technical, project development, planning and consenting matters, as well as consultation/engagement opportunities, pertinent to the implementation of the Grid Development Strategy, the Shaping Our Electricity Future Report, and TDP 2022-2032; and to draft policies and objectives that will ensure their appropriate consideration in grid development activities undertaken during the IP period; and
- To articulate a strategy for regional grid development based on the Grid Development Strategy, the Shaping Our Electricity Future Report and TDP 2022-2032 and separately to list transmission infrastructure projects that are envisaged as likely to be developed during the plan period, as set out in EirGrid 's TDP 2022-2032.

## 1.2.2 Context setting background to EirGrid 's Role and the Implementation Strategy

EirGrid is the national electricity Transmission System Operator (TSO). In its role as TSO in Ireland, EirGrid operates and maintains a safe, secure, reliable, economical and efficient transmission system. EirGrid develops key infrastructural projects - High Voltage (110, 220, 275, and 400 kV) - which are vital for the socio-economic development of the State, with due regard for the environment. The Electricity Supply Board (ESB), as the Transmission Asset Owner (TAO), is charged with constructing the transmission assets as specified by the TSO. ESB also has the role of Distribution System Operator (DSO).

Electricity supply is essential, and a reliable electricity network is the means by which we move electricity around the country. The transmission system is the backbone of the power system; efficiently delivering large amounts of power from where it is generated to where it is needed, safely and reliably. The development of transmission network infrastructure is therefore, of national strategic importance.

EirGrid previously published the GRID25 strategy in 2008 which was then replaced by the Your Grid, Your Tomorrow: Ireland's Grid Development Strategy (2016). To date there have been two iterations of Grid Implementation Plans the latest of which is the 2017-2022 IP. The Grid IP 2023-2028 will be the third IP, which will sit under the Shaping Our Electricity Future Roadmap published by EirGrid in 2021<sup>4</sup>.

The current Transmission Development Plan (TDP) 2021-2030 lists the committed projects and projects under development for the enhancement of the Irish transmission network over the coming ten years. The next TDP (2023-2032) will be developed in advance of, and in parallel with the IP<sup>5</sup>. Committed projects are those that have received EirGrid capital approval and are in Steps 4-6 of EirGrid 's six-step process for developing the grid and these projects are detailed in Section 5 of the TDP. The projects which are in the development stages are those which have not yet received capital approval and are in Steps 2-3 and these projects are detailed in Section 6 of the TDP.

The TDP addresses needs identified in the Tomorrow's Energy Scenarios System Needs Assessment and candidate reinforcements presented in Shaping Our Electricity Future. These are brought through EirGrid 's six- step process for developing the grid. Inherent in this is the government target to achieve at least 70% and up to 80% electricity from renewable energy sources (RES-E) by 2030.

The planning areas within Ireland are divided into Nomenclature of Territorial Units for Statistics (NUTS) which have 3 levels; NUTS 1 is the Republic of Ireland boundary, NUTS 2 are the regional boundary areas and NUTS 3 which are divided into 8 zones.

The Grid network is a meshed system of 400 kV, 275 kV, 220 kV and 110 kV transmission lines and cables and associated substations. Over the lifetime of the previous IP 2017-2022 there have been a number of grid developments to the existing grid network these are further explained in the Draft Grid IP, which should be read in conjunction with this report to contextualise the assessment.

---

<sup>4</sup> <https://www.eirgridgroup.com/the-grid/shaping-our-electricity-f/>

<sup>5</sup> Following instruction from the Commission for the Regulation of Utilities in April 2022, EirGrid did not develop a 2022 version of the TDP, instead moving straight to the preparation and development of the 2023 TDP. This arose due to prioritisation on the impact of Russia's invasion of Ukraine and corresponding impacts on Irish energy prices and security of supply challenges

### 1.2.3 Alternatives

As required by the SEA Directive, alternatives were considered, taking account of the objectives and geographical scope of the Draft Grid IP, and with a view to identifying potential ways that EirGrid could achieve an appropriate and sustainable approach to the planning and consenting of transmission projects. In this regard alternatives were considered across three areas; namely plan level, scenario planning and project level alternatives.

In terms of the plan level assessment, a No Plan / no development alternative was initially considered. However, this was not deemed a reasonable alternative, which would allow EirGrid to meet their legal obligations as a Transmission System Operator and on this basis, was not considered further. Three plan alternatives were then considered, as detailed in the assessment Section 11.5, and it was determined that the Grid Implementation Plan 2023-2028 as proposed was the preferred alternative. Whilst the implementation of the Draft Grid IP could result in some negative environmental impacts in general, the implementation of Draft Grid IP in compliance with its specified policies and objectives is likely to result in overall greater positive environmental effects.

## 1.3 Strategic Environmental Assessment

SEA is required under EU Legislation (known as the SEA Directive) and is a process of predicting and evaluating the likely significant environmental effects of certain plans and programmes “subject to preparation and/or adoption by a national, regional or local authority OR prepared by an authority for adoption through a legislative procedure by Parliament or Government”.

The Draft Grid IP was ‘screened in’ for SEA considering that EirGrid, as a semi-state company reports to the Commission for Regulation of Utilities (CRU) who perform their functions on behalf of the Department of the Environment, Climate and Communications (DECC) and energy plans require an SEA. EirGrid can be considered as the “competent authority” under the SEA Directive and Regulations 2004 (S.I. No. 435 of 2004) for the purpose of this Plan. The Plan, however, does not need to be formally adopted through a legislative procedure by the Government, rather through an internal adoption process by EirGrid.

The process of SEA and Appropriate Assessment (AA) and associated consultation has been ongoing throughout the development of the Draft Grid IP.

This SEA process aims to:

- Ensure that likely significant environmental effects are identified and evaluated during the plan development.
- Ensure that any significant environmental effects identified are considered in the plan development process so that the Plan can be developed with regard to these, and/or mitigation measures put in place to avoid or reduce any potential environmental effects of development from the Draft Grid IP.
- The process ensures that the effectiveness of mitigation measures is monitored during the Plan’s lifetime.
- It also ensures that decisions are made in conjunction with stakeholder and public involvement.

The stages of the SEA process include:

- Stage 1: Screening (deciding whether SEA is required).
- Stage 2: Scoping (establishing the scope of the assessment).

- Stage 3: Identification, Prediction, Evaluation and Mitigation of likely significant effects; and,
- Stage 4: Consultation, Revision and Post-Adoption. This Draft SEA ER has been completed as part of Stage 3 of the SEA process as outlined below:
  - Consultation – SEA Scoping.
  - Environmental Baseline Data - Information was collated building on the information gathered during the SEA Scoping exercise.
  - Review of Plans and Policies - A review of relevant international, national and regional plan and policy documents was undertaken in order to inform the assessment.
  - Key Environmental Issues Identification - Key environmental issues were identified based on the consultation, baseline data and the plan and policy review.
  - Finalisation of Strategic Environmental Objectives (SEOs)– The SEOs which were presented as draft in the SEA Scoping Report were finalised.
  - Assessment of Likely Significant Effects (LSEs) - Using the SEOs, the assessment of likely significant effects associated with the Draft Grid IP was undertaken.
  - Mitigation & Recommendations - Based on this assessment and the likely significant effects, mitigation and recommendations have been proposed.
  - Monitoring - The final step is the development of the SEA monitoring framework.

#### 1.4 Appropriate Assessment (AA)

There is also a requirement for the Draft Grid IP to meet the requirements of the EU Habitats Directive. Full detail of that assessment is included in an NIS for the Draft Grid IP. AA examines the direct and indirect effects of the draft (and final) Draft Grid IP or project, either individually or in-combination with other plans and projects on European protected sites, part of the Natura 2000 Network of Special Areas of Conservation (SAC) and Special Protection Areas (SPAs). The process is to ensure that the Draft Grid IP will not result in adverse effects on the integrity of the Natura 2000 Network of sites.

#### 1.5 Consultation

The public consultation on the Draft Grid IP and accompanying Draft SEA ER and NIS is the key process for stakeholders and the general public to influence the environmental context of the final Draft Grid IP and SEA documents. This process is currently underway – and will be incorporated into the final documents and SEA/AA processes where appropriate. Consultation with the environmental authorities and other key stakeholders<sup>6</sup> has already been completed for the scoping phase.

#### 1.6 Baseline Information - Current State of the Environment & Future Trends

Full details of the current state of the environment (as relevant to the Draft Grid IP) and future trends (that is, how the baseline may be expected to change), is provided in the following Draft SEA ER and presented in summary below:

---

<sup>6</sup> SEA scoping was extended to numerous civil society participation networks, who were issued with the Consultation portal link; such as Friends of the Earth, Irish Environmental Network / Environment Pillar, 31 Public Participation Networks

Theme	Current condition	Future Trends (Evolution of the Baseline)
Population, Human Health & the Economy	<ul style="list-style-type: none"> <li>The population is on the increase (currently 4.7 million) a trend within most counties in Ireland.</li> <li>Overall, the health of the population is generally ‘Good’ to ‘Very Good’ based on a recent national health survey.</li> <li>The Irish economy is undergoing recovery since the “crash” of 2008.</li> </ul>	<ul style="list-style-type: none"> <li>The population of Ireland is projected to increase to over five million by 2031.</li> <li>Life expectancy in Ireland has increased and with an ageing population, the health of Ireland will continue to place pressure on the health care systems.</li> <li>Investment in infrastructure will continue through the government’s Capital Investment Plan.</li> <li>The government has targeted 200,000 additional jobs by 2020.</li> </ul>
Biodiversity, Flora & Fauna	<ul style="list-style-type: none"> <li>There are several international and national protected sites in Ireland.</li> <li>Almost 80% of the protected habitat are inadequate or bad status.</li> <li>Over 50% of the protected species are at favourable status.</li> <li>Invasive species can have a significant negative effect on wildlife and habitats.</li> <li>62% of cartilaginous sharks (sharks, skates, rays, chimearas) are of conservation concern on the Irish red list (Clarke et al., 2016)</li> <li>78% of marine and coastal habitats are in unfavourable condition (NPWS, 2019)</li> <li>There is currently no up-to-date database of Irish marine non-indigenous and invasive species</li> <li>Only 8% of Ireland’s marine waters have been designated, yet the EU Biodiversity 2030 strategy up-to-date database of Irish marine non-indigenous and invasive species</li> <li>Coastal waters are in a better condition, with 36 (80%) of those monitored being of high or good status (EPA, 2019a).</li> <li>The Marine Protected Areas Bill was agreed by government in December 2022.</li> </ul>	<ul style="list-style-type: none"> <li>Land-use change such as urbanisation, are likely to continue to pose risks to habitats and species.</li> <li>Continued conservation initiatives and legislation will help protect biodiversity resources going forward.</li> <li>The Marine Protected Areas Bill is expected to be enacted in 2024.</li> <li>Further designation of offshore European sites is expected during the lifecycle of the Draft Grid IP.</li> <li>Marine Protected Areas are expected to be designated starting in the Irish Sea in 2024.</li> <li>Invasive species are likely to remain threat to biodiversity.</li> </ul>

Theme	Current condition	Future Trends (Evolution of the Baseline)
	<ul style="list-style-type: none"> <li>Two new marine SACs, and Ireland's first offshore candidate SPA were designated in 2023.</li> </ul>	
Landscape & Visual Amenity	<ul style="list-style-type: none"> <li>There is no national level landscape mapping for Ireland.</li> <li>There are several county level protected landscape feature in Ireland.</li> </ul>	<ul style="list-style-type: none"> <li>The existing landscape is not expected to change significantly in the immediate future.</li> <li>As part of the National Landscape Strategy a National Landscape Character Assessment will be developed.</li> </ul>
Cultural Heritage - Archaeology & Architectural	<ul style="list-style-type: none"> <li>There are a number of national level protected cultural heritage feature in Ireland. These are afforded strict protection under national legislation.</li> </ul>	<ul style="list-style-type: none"> <li>The existing cultural heritage environment is not expected to change significantly in the immediate future.</li> </ul>
Geology and Soils	<ul style="list-style-type: none"> <li>Ireland consists of a central limestone plain that is surrounded by coastal mountains.</li> <li>Soil quality in Ireland is regarded as generally good.</li> <li>There is no legislation solely directed to soil protection in Ireland.</li> </ul>	<ul style="list-style-type: none"> <li>Soil loss and degradation is recognised as a major challenge across Europe.</li> </ul>
Land use	<ul style="list-style-type: none"> <li>The total land area of Ireland is almost 7 million hectares and agriculture accounts for two-thirds of this landmass cover.</li> <li>The main changes to land use in Ireland have seen a decrease in agricultural land and peatland areas and an increase to forested land and artificial areas.</li> <li>Forested areas cover about one-tenth (9.2%), much of which consists of commercial plantation of conifers, owned by Coillte.</li> </ul>	<ul style="list-style-type: none"> <li>Initiatives such as Food Harvest 2020 (which aims to increase Irish agri-food export by 2020).</li> <li>The Irish Government has made a commitment to increase the forest area to 17% of the total land area by 2030.</li> <li>Ireland's Food Vision 2030 states that between 2010 and 2020, the value of agri-food exports increased by 60% (Government of Ireland, 2022c).</li> <li>2013-2018 (EPA, 2020b): Agricultural lands (dominant land use) and wetland areas (second dominant land use) decreased, with most significant increases in semi-natural vegetation.</li> <li>Nationally, there needs to be a concerted effort to fully implement the commitments of the National Peatlands Strategy</li> </ul>



Theme Current condition		Future Trends (Evolution of the Baseline)
		<p>and the National Raised Bog SAC Management Plan 2017-2022 (DCHG, 2018). Rewetting degraded peatlands will help eliminate and reduce losses of carbon.</p> <ul style="list-style-type: none"> <li>• Ireland’s Forestry Strategy 2022-2030 (DAFM, 2022) states more than 11.6 % of the area of Ireland, the highest it’s been in over 350 years</li> </ul>
Water	<ul style="list-style-type: none"> <li>• The current quality of water in Ireland is considered among the best in Europe but there is still improvement needed.</li> </ul>	<ul style="list-style-type: none"> <li>• Overall trend (2013-2018) for % of waterbodies in High or good status was unchanged (53%), with slight improvement to 54% for the period 2016-2021 (EPA, 2022c) However, this means nearly half of Irish surface water bodies failing to meet EU Water Framework Directive objectives</li> <li>• Overall, 91% of groundwater bodies are in good chemical status and nearly all are in good quantitative status (EPA data for 2016-202117).</li> <li>• Coastal waters had highest percentage of waters in good or better ecological status (80%) followed by rivers (53%), lakes (50.5%) and estuaries (38%), with the worst water quality.</li> <li>• OPW review (OPW, 2021) through Inter Departmental Flood Policy Coordination Group and National ‘Floods’ Directive concluded no new, additional flood measures needed as of 2021.</li> <li>• Work by OPW is complete or underway to deliver protection to 80% of properties identified for protection in FRMPs</li> </ul>
Climate Change	<ul style="list-style-type: none"> <li>• Ireland’s Green House Gas (GHG) emissions, per capita were the tenth highest in Europe in 2014.</li> </ul>	<ul style="list-style-type: none"> <li>• EPA (2022): More urgency needed to deliver climate mitigation and adaptation to</li> </ul>

Theme Current condition		Future Trends (Evolution of the Baseline)
		<p>meets international obligations to reduce greenhouse gas (GHG) emissions.</p> <ul style="list-style-type: none"> <li>• While Ireland’s GHG emissions, with full implementation of the Climate Action Plan 2021 (Government of Ireland, 2021), are projected to decrease by an annual average reduction of 3 per cent between 2021 and 2030, further measures are required to meet national and EU ambitions to keep the global temperature increase to 1.5°C.</li> <li>• Government raised commitment for offshore wind from 5GW to 7GW</li> <li>• In 2022, Government agreed pathway to 51% reduction in economy-wide emissions including 25% reduction from agriculture (Government of Ireland, 2022d)</li> </ul>

### 1.7 Other Plans and Projects

The SEA requires a review of other plans and projects (PP) to identify potential relationships<sup>1</sup> between the Draft Grid IP objectives and these other PPs. Some key PP are:

- Ireland’s Shaping Our Electricity Future.
- Offshore Renewable Energy Development Plan (ORED II).
- A National Landscape Strategy for Ireland (NLS).
- The Habitats Directive (92/43/EEC).
- The Birds Directive (2009/147/EC).
- Environmental Impact Assessment Directive (2014/52/EU) and associated Irish legislation.
- Ireland 2040 Our Plan - National Planning Framework.
- Transmission Development Plan (TDP).
- Strategic Environmental Directive (2001/42/EC) and associated Irish legislation.
- National Planning Framework (DHLGH)
- Rural Development Programme (DAFM)
- CAP Strategic Plan 2023-2027
- Food Vision 2030
- Agri Food Strategy 2030 (DAFM)
- National Biodiversity Plan (DHLGH)

- National Peatland Strategy (DHLGH)
- SAC Raised Bog Management Plan (DHLGH)
- Climate Action Plan 2023 (DECC)
- Sectoral Climate Change Adaptation Strategies and Low Carbon Roadmaps
- National Mitigation Plan (DECC)
- National Adaptation Framework (DECC)
- National Policy Position on Climate Action and Low Carbon Development (DECC)
- EU Climate Adaptation Strategy 2021
- National Broadband Plan (DECC)
- National Renewable Electricity Policy Framework (DECC)
- Draft Renewable Electricity Spatial Policy Framework (DECC)
- Framework for Alternative Fuel Infrastructure in Transport (DOT)
- Offshore Renewable Energy Development Plan (DECC)
- National Bioenergy Plan (DECC)
- National Forestry Programme/ Forestry Policy Review (DAFM)
- National Landscape Strategy (DHLGH)
- 10 Year Tourism Strategy (Failte Ireland)
- Smarter Transport /Strategic Framework for Integrated Land Transport (DOT)
- National Greenway Strategy (DOT)
- State of the Environment Report (EPA)
- National River Basin Management Plan (DHLGH)
- National Marine Planning Framework (DHLGH)
- Seafood Operation Programme/ Strategic Aquaculture Programme (DAFM)
- Harnessing Our Ocean Wealth (DAFM)
- Capital Investment Programme (Irish Water)
- Draft Water Resources Management Plan (Irish Water)
- National CFRAMS Programme (OPW)

A review of relevant national and regional plan and policy documents was undertaken to inform the key environmental issues (as can be seen in Appendix A), and to ensure that the requirements of these plan and policy documents are fully addressed by the policies and objectives set out in the Draft Grid IP.

## 1.8 SEA Objectives

Strategic Environmental Objectives (SEOs) are measures developed from policies which are used to guide environmental protection. The SEOs are used as standards against which the Draft Grid IP can be assessed in order to identify any likely significant environmental effects.

Environmental Theme	Strategic Environmental Objective
---------------------	-----------------------------------

Environmental Theme	Strategic Environmental Objective
Overall	<b>O1:</b> Ensure, where appropriate, that lower level plans and projects implement SEA mitigation and policies and contribute to overall environmental monitoring processes within EirGrid .
Population, Human Health & the Economy	<b>PHH1:</b> Minimise the proximity of development to concentrations of population in order to reduce actual and/or perceived environmental effects.
Biodiversity, Flora & Fauna	<b>B1:</b> Ensure compliance with Habitats and Birds Directives with regard to protection of European Sites and Annexed habitats and species <sup>7</sup> .
	<b>B2:</b> Support Article 10 of the Habitats Directive with regard to ecological networks
	<b>B3:</b> Avoid, or minimise significant impacts on semi-natural habitats, species, and nationally designated sites
	<b>B4:</b> Restore or enhance nature (including net habitat gain)
Landscape, Seascape & Visual Amenity	<b>L1:</b> Avoid or, minimise impacts to statutory landscape and seascape designations, including those in the land use plans of planning authorities.
	<b>L2:</b> Avoid or minimise adverse visual effects on sensitive receptors.
Cultural Heritage - Archaeology & Architectural	<b>CH1:</b> Avoid impacts upon archaeological heritage sites
Geology and Soils	<b>GSL1:</b> Avoid or minimise effects on mineral resources or soils.
Land use	<b>LU1:</b> Avoid or minimise effects on existing land and marine use.
Water	<b>W1:</b> Maintain and/or improve, the quality and status of surface waters, including supporting for the objectives for the Draft Third Cycle River Basin Management Plan (2022-2027) where relevant and appropriate
	<b>W2:</b> Maintain and/or improve, the chemical and quantitative status of groundwaters.
	<b>W3:</b> Prevent impact upon the WFD status of surface waters and groundwater in line with the requirements of the WFD.
	<b>W4:</b> Comply as appropriate with the provisions of the Flood Risk Management Guidelines.
Material Assets & Infrastructure	<b>MAI1:</b> Avoid or minimise effects on built/amenity assets and infrastructure.
	<b>MAI2:</b> Avoid or minimise effects on effects upon existing and (where known) planned infrastructure.

<sup>7</sup> ‘Annexed habitats and species’ refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

Environmental Theme	Strategic Environmental Objective
Tourism & Recreation	<b>TR1:</b> Avoid, or minimise effects upon tourism and recreation amenities.
Climate Change	<b>CF1:</b> Delivery of the necessary grid infrastructure to facilitate Up to 80% of electricity from renewable sources by 2030

## 1.9 Assessment of the Draft Grid IP

### 1.9.1 Inherent Mitigation

Projects outlined within the Draft Grid IP will be subject to a range of statutory, and non-statutory mitigation measures (namely, EirGrid in-house processes and procedures) that will work to avoid or mitigate any potential environmental effects of development from the Draft Grid IP. While the applicability of particular processes and measures will be dependent on the nature and scale of each project, examples of typical inherent mitigation that will be implemented at the different stages of project implementation include:

- Statutory Requirements - These are related to the various planning routes that a potential grid development project is subject to and the associated assessments such as Environmental Impact Assessment (EIA).
- EirGrid in-house processes and procedures – EirGrid internal processes such as the project guidelines and the six-step framework for Grid development<sup>8</sup>.
- Best Practice construction requirements – Industry guidance on undertaking construction projects.

The assessment of likely significant effects has been undertaken with the assumption that these inherent mitigation measure are, and will be, in place for development proposed in the Draft Grid IP.

### 1.9.2 Policies and Objectives

A total of 67 policies and objectives are proposed under the Draft Grid IP. Each one has been assessed against the SEOs, and overall, the policies and objectives within the Draft Grid IP have been found to be positive in nature, helping to:

- Serve the electricity needs of the county in a sustainable manner;
- Make provisions to avoid and mitigate against potential environmental effects;
- Promote the use of existing grid infrastructure when feasible;
- Implement and improve existing internal guidance, processes and procedure when it comes to grid development;
- Incorporate social impact assessment into the grid development process;
- Promote new (and potentially less impactful) technologies in transmission infrastructure development;
- Increase transparency and public participation in the grid development process;

<sup>8</sup> [https://www.eirgridgroup.com/\\_uuid/7d658280-91a2-4dbb-b438-ef005a857761/EirGrid-Have-Your-Say\\_May-2017.pdf](https://www.eirgridgroup.com/_uuid/7d658280-91a2-4dbb-b438-ef005a857761/EirGrid-Have-Your-Say_May-2017.pdf)

- Contribute to Irelands achievement of its renewable energy targets;
- Contribute to combating climate change; and
- Support the key actions outlined in the EPAs sixth State of the Environment Report (EPA,2016).

### 1.9.3 Transmission Development Projects

Over 100 transmission development projects contained within the Draft Grid IP were assessed against the SEOs. With the application of inherent mitigation, the likelihood of significant effects from Grid projects are reduced however the possibility of limited significant effects cannot be ruled out completely.

The SEA Directive requires that where the Draft Grid IP has potential for transboundary environmental effects these must be addressed within the SEA. The Draft Grid IP relates to grid development in Northern Ireland as the transmission system is being developed as an all-island system and deals with electricity interconnectors between Great Britain and France.

As such, the Draft Grid IP (and SEA/AA) has considered potential transboundary effects in these regions.

Consultation was undertaken via the SEA Scoping Report with the Northern Ireland Environment Agency (NIEA), the Ministry of the Environment (Ministère de l'Environnement, de l'Énergie et de la Mer) in France and the Welsh government. A copy of the draft Draft Grid IP, this Environmental Report and NIS have also been made available to these transboundary consultees.

Cumulative and in-combination effects between projects within the Draft Grid IP and other projects was considered. The assessment determined that in general, there were no anticipated significant cumulative or in-combination effects. Where significant effects were considered likely, it was concluded that with the implementation of the recommendations from this Environmental Report and the measures from the NIR, these effects would be reduced or avoided.

### 1.9.4 Data Gaps and Limitations

This SEA is being undertaken using the best available data and methodologies at the time of assessment. However, there remain some data gaps and limitations which limit the scope and content of the assessment, Including:

- This baseline description is not intended to be an exhaustive description of all baseline environmental data.
- The lack baseline data to cover all SEA aspects/issues, such as landscape character assessment designations across some development areas.
- The Draft Grid IP has reference to the adopted Transmission Development Plan (TDP) of 2022-2030 and the SEA has not influenced the list of projects. Mitigation measures and monitoring measures have been developed however and integrated into the Draft Grid IP.
- As the projects referenced in the Draft Grid IP are based on the adopted TDP 2016-2026, new projects may arise over the lifetime of the IP. The system of environmental appraisal for each annual TDP ensures that a high level of environmental assessment is undertaken annually in line with provisions set out in the SEA and NIR.
- The nature of the process of Grid development is that for several projects, the details are relatively undeveloped. The need for projects is identified but specific elements are not known such as the location or technology to be used.

## 1.10 SEA Mitigation and Recommendations

Recommendations have been provided to strengthen the Draft Grid IP policies and objectives, and all recommendations have been accepted by EirGrid and have been integrated into the final Draft Grid IP document. The 2023 SEA framework will also provide the basis for the assessment in Environmental Appraisal Report (EAR) of the next TDP.

The Draft Grid IP has focused significant on future learning objectives, prioritisation of data gathering and retention, and action based monitoring processes. There are also commitments for knowledge transfer through collaboration, stakeholder engagement and data sharing processes. Overall the policies and objectives within the Draft Grid IP ensure the protection – and in some instances enhancement – of the environment.

### 1.11 SEA Monitoring

The SEA Monitoring Framework has been proposed to monitor and manage the potential significant negative effects and any unforeseen effects of the Draft Grid IP. Monitoring will be undertaken for all aspects both onshore and offshore including:

- Population, Human Health & the Economy;
- Biodiversity, Flora & Fauna;
- Landscape, Seascape & Visual Amenity;
- Cultural Heritage (Archaeology & Architectural);
- Water (including marine waters);
- Material Assets & Infrastructure (including soil and landuse);
- Tourism & Recreation; and
- Climate Change.

The Monitoring framework has been informed by the recommendations of EirGrid’s Monitoring Report on the Grid Implementation Plan 2017-2022<sup>9</sup>.

### 1.12 Conclusion

The Draft Grid IP identifies the best current understanding of those parts of the transmission system that are likely to be developed over the next six years and identifies the issues, policies and objectives that will be addressed in developing the Grid. All projects within the Draft Grid IP will be subject to the appropriate planning requirements. In addition, consideration of the potential environmental effects will also be undertaken during the selection of the preferred technology, and locational solutions for each project, and these will be subject to the policies and objectives set out in the Draft Grid IP.

It is considered that the Draft Grid IP, the objectives and policies within the Plan, and the mitigation proposed as part of the SEA will contribute to the sustainable development of the transmission system in Ireland over the next six years and beyond. There is a focus on using the existing network as far as is reasonably practical, thus reducing potential negative effects on the environment, and contributing to sustainable development.

---

<sup>9</sup> [https://www.eirgridgroup.com/site-files/library/EirGrid/210727-EirGrid-SEA-Monitoring-Report\\_PUBLISHED\\_FINAL.pdf](https://www.eirgridgroup.com/site-files/library/EirGrid/210727-EirGrid-SEA-Monitoring-Report_PUBLISHED_FINAL.pdf)

## 2. INTRODUCTION

### 2.1 Introduction and Terms of Reference

This is the Draft Strategic Environmental Assessment (SEA) Environmental Report for the fourth iteration of the Grid Implementation Plan 2023-2028 (hereafter referred to as the “Draft Grid IP”). It has been undertaken by Fehily Timoney and Company on behalf of the EirGrid plc. (EirGrid).

The purpose of this report is to provide a clear understanding of the likely environmental consequences of decisions regarding the adoption and implementation of the Draft Grid IP. The SEA is carried out in order to comply with the provisions of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (Statutory Instrument Number (SI No. 435 of 2004) as amended. This report should be read in conjunction with the Draft Grid IP.

### 2.2 SEA Directive and its transposition into Irish Law

SEA is a systematic process of predicting and evaluating the likely significant environmental effects of implementing a proposed plan or programme, in order to ensure that these effects are adequately addressed at the earliest appropriate stages of decision-making in tandem with economic, social and other considerations.

SEA is required on foot of the Directive 2001/42/EC of the European Parliament and of the Council of Ministers, of 27th June 2001, on the Assessment of the Effects of Certain Plans and Programmes on the Environment - referred to hereafter as the SEA Directive - to be carried out on plans and programmes which are prepared for a number of sectors, including energy.

The SEA Directive was transposed into Irish Law through the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (Statutory Instrument Number (SI No. 435 of 2004) and the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (SI No. 436 of 2004). Both sets of Regulations became operational on 21st July 2004. The Regulations have been amended by the European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (SI No. 200 of 2011) and the Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011 (SI No. 201 of 2011).

### 2.3 Purpose and Structure of this Report

SEA is required under the EU Council Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (the SEA Directive)<sup>10</sup>. Their purpose is to enable plan-making authorities to incorporate environmental considerations into decision-making at an early stage and in an integrated way throughout the Draft Grid IP-making process and to:

- Identify, evaluate and describe the likely significant effects on the environment of implementing the Draft Grid IP;

---

<sup>10</sup> Transposing Irish Regulations (the European Communities Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No 435 of 2004) as amended by S.I. No. 200 of 2011 (European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011) and S.I. No. 201 of 2011 (Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011) respectively.



- Ensure that identified adverse effects are communicated, mitigated and that the effectiveness of mitigation is monitored.
- Identify beneficial (and neutral) effects, and to ensure these are communicated; and
- Provide opportunity for stakeholder and public involvement.

In accordance with the overall aim of the SEA Directive as set out in Article 1, an SEA of the Draft Grid IP is required to:

*“Provide for a high level of protection to the environment and to contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development....”*

Under Article 2 an environmental assessment:

*“...shall be carried out for all plans and programmes, (a) which are prepared for agriculture, forestry, fisheries, **energy**, industry, transport, waste management, water management, telecommunications, tourism, town and country planning or land use and which set the framework for future development consent of projects listed in Annexes I and II to Directive 85/337/EEC4.”*

The SEA process is undertaken in four stages. Stage 1 Screening (to determine whether SEA is required, or not) and Stage 2 Scoping (establishing the spatial and temporal scope of the SEA and a decision-making framework that can be used to evaluate impacts) have been completed for the Draft Grid IP, with the outputs of both stages, the SEA Screening Statement and the SEA Scoping Report, available on the EirGrid website ([www.EirGridgroup.com](http://www.EirGridgroup.com)).

This Draft SEA ER is the output of Stage 3 of the four-stage SEA process (detailed further in **Section 4** below). The purpose of this Draft SEA ER was to:

- identify, evaluate and describe the likely significant effects on the environment of implementing the Draft Grid IP, allowing for the opportunity to amend the Draft Grid IP before publication;
- ensure that identified adverse effects are communicated, mitigated and that the effectiveness of mitigation is monitored; and
- provide opportunities for public and stakeholder involvement prior to the finalisation of the Draft Grid IP.

The next stage (Stage 4) involved the development of an SEA Post Adoption Statement. The Statement was informed by stakeholder comments on the Draft Grid IP and this Draft SEA ER and has been published alongside the final Draft Grid IP.

## 2.4 Appropriate Assessment

In addition to compliance with the SEA Directive, the preparation and implementation of the Draft Grid IP must meet the provisions of Habitats Directive (92/43/EEC) and transposing regulations EC (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011). Full details of this process are provided in the NIS for the Draft Grid IP.

### Key Messages from Section 2 of this report:

- To deliver on this strategy, the Grid Implementation Plan 2023 - 2028 has been developed by EirGrid. This Plan is subject to Strategic Environmental Assessment (SEA) and Appropriate Assessment (AA).
- EirGrid is seeking feedback on the Draft Grid IP, the Draft SEA ER and the Natura Impact Statement and amended these reports accordingly. A summary of consultation responses will be provided in the SEA Statement.

## 3. GRID IMPLEMENTATION PLAN 2023 – 2028

### 3.1 Overview

The scope of this Draft Grid IP will have three defined aspects due to the development of the sector and evolving role of EirGrid nationally during the lifetime of the forthcoming Draft Grid IP:

- Onshore development of the grid network;
- Offshore development of the grid network; and
- Temporary back-up generation development.

It is recognised that the likely environmental envelope of potential effects for each of the 3 aspects will be different given the spatial scope and nature of any associated developments. These three elements or aspects are expanded below where relevant - in the context of EirGrid 's role.

### 3.2 Context setting background to EirGrid 's Role and the Implementation Strategy

EirGrid is the national electricity Transmission System Operator (TSO). In its role as TSO in Ireland, EirGrid operates and maintains a safe, secure, reliable, economical and efficient transmission system. EirGrid develops key infrastructural projects - High Voltage (110, 220, 275, and 400 kV) - which are vital for the socio-economic development of the State, with due regard for the environment. The Electricity Supply Board (ESB), as the Transmission Asset Owner (TAO), is charged with constructing the transmission assets as specified by the TSO. ESB also has the role of Distribution System Operator (DSO).

Electricity supply is essential, and a reliable electricity network is the means by which we move electricity around the country. The transmission system is the backbone of the power system; efficiently delivering large amounts of power from where it is generated to where it is needed, safely and reliably. The development of transmission network infrastructure is therefore, of national strategic importance.

EirGrid previously published the GRID25 strategy which was then replaced by the Your Grid, Your Tomorrow: Ireland's Grid Development Strategy (2016). To date there have been three iterations of Grid Implementation Plans the latest of which is the 2017-2022 Plan. the Draft Grid IP 2023-2028 will be the fourth IP, which will sit under the 2016 Strategy as updated by the Shaping Our Electricity Future Roadmap published by EirGrid in 2021<sup>11</sup>.

The Transmission Development Plan (TDP) 2021-2030 lists the committed projects and projects under development for the enhancement of the Irish transmission network over the coming ten years. Committed projects are those that have received EirGrid capital approval and are in Steps 4-6 of EirGrid 's six-step process for developing the grid and these projects are detailed in Section 5 of the TDP. The projects which are in the development stages are those which have not yet received capital approval and are in Steps 2-3 and these projects are detailed in Section 6 of the TDP. The TDP 2021-2030 succeeds the TDP 2020-2029. The plan has been prepared in accordance with EirGrid 's statutory and license obligations. Additional projects will be included in future TDPs as the needs identified in the Tomorrow's Energy Scenarios System Needs Assessment and candidate reinforcements presented in Shaping Our Electricity Future are brought

---

<sup>11</sup> <https://www.eirgridgroup.com/the-grid/shaping-our-electricity-f/>

through EirGrid 's six-step process for developing the grid. Inherent in this is the government target to achieve at least 70% and up to 80% electricity from renewable energy sources (RES-E) by 2030.

Furthermore, EirGrid Plc and SONI Ltd - the electricity system operators for Ireland and Northern Ireland, are publishing the inaugural 'Shaping Our Electricity Future Report' in support of decarbonisation policies set by the Government of Ireland and the Government of the United Kingdom. A minimum 70% RES-E target has become a legal obligation as part of Ireland's National Energy and Climate Plan (NECP) 2021-2030, which is Ireland's contribution to the European Union's Clean Energy Package. While energy policy is yet to be set in Northern Ireland, EirGrid are encouraged by the Economy Minister's aspiration of no less than 70% electricity from renewable sources by 2030. SONI continues to support the Minister and officials in their policy development and EirGrid anticipate this document, and subsequent consultations, will provide further input to this process. EirGrid and SONI seek to provide electricity, at the most economic price possible – today, tomorrow and for decades to come. EirGrid want to provide a cleaner, more efficient, reliable, and secure electricity supply for consumers on the island by 2030. This commitment is at the heart of this project; this document informs the consultation to assist in setting out the roadmap to achieving this important ambition.

The planning areas within Ireland are divided into Nomenclature of Territorial Units for Statistics (NUTS) which have 3 levels; NUTS 1 is the Republic of Ireland boundary, NUTS 2 are the regional boundary areas (Figure 3-1) and NUTS 3 which are divided into 8 zones (Figure 3-2).

The electricity industry directly employs thousands of people. At its core is the high-voltage transmission grid, a state-owned asset that is operated by EirGrid . The Grid network is a meshed system of 400 kV, 275 kV, 220 kV and 110 kV transmission lines and associated substations (Figure 3-3). Over the lifetime of the previous IP there have been a number of additional and upgrades to the existing grid network; further detail related to the Plan details can be found in the plan itself and should be read in conjunction with this assessment.



Figure 3-1: NUTS 2 Planning Areas



Figure 3-2: NUTS 3 Planning Areas



Figure 3-3: International infrastructure showing the interconnectors (Source: EirGrid)

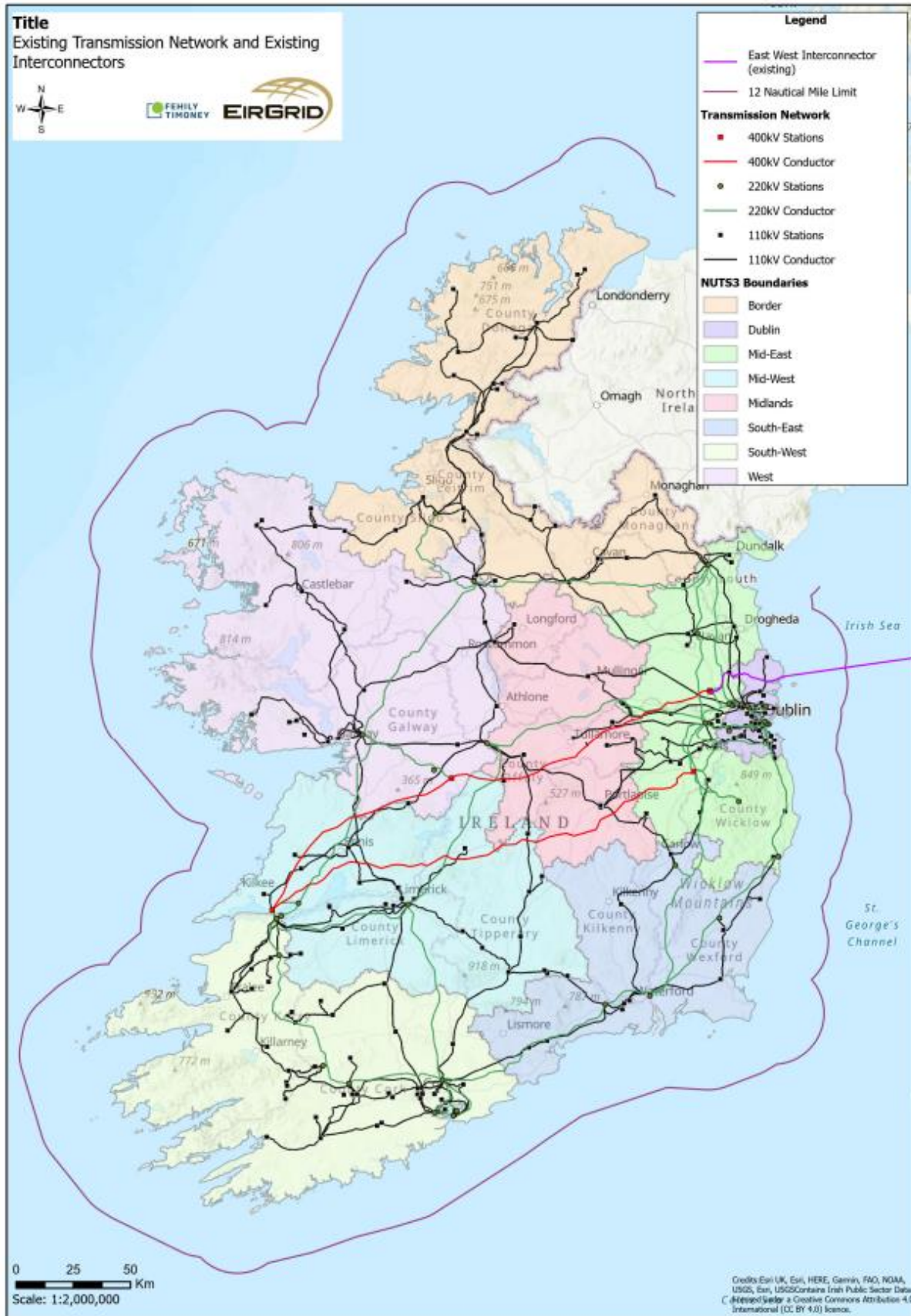


Figure 3-4: The National Transmission System at a national scale showing the existing network (Source: EirGrid)



### 3.3 Changes to EirGrid 's Role (Offshore) with regard to the draft Implementation Strategy

In 2020, EirGrid<sup>12</sup> was designated by the Irish Government as "the system operator and asset owner of Ireland's offshore electricity transmission system, with ownership resting with EirGrid at all stages of the phased transition, regardless of whether the grid has been developed by individual renewable energy projects or EirGrid. Transmission system assets to be owned by EirGrid will include the high voltage transmission circuits and associated onshore and offshore transmission infrastructure connecting offshore generation sites to the existing onshore transmission system, as well as any necessary offshore reinforcements to accommodate electricity flows".

### 3.4 Purpose and Scope of the GRID Implementation Plan 2023-2028

#### 3.4.1 Need for the Plan

The Draft Grid IP identifies the best current understanding of those parts of the transmission system that are envisaged as likely to be developed over the next five years and identifies the issues, policies and objectives that will be addressed in developing the Grid. In this way it establishes the parameters and criteria for the underlying processes by which subsequent decisions will be made. This is particularly relevant with respect to the demand for offshore energy developments and emergency power generation.

The development of the Irish electricity sector is guided by several national and European Union (EU) policy and strategic objectives. These objectives guide investment in the Irish transmission network and are summarised as follows:

- Ensuring the security of electricity supply;
- Ensuring the competitiveness of the national economy; and
- Ensuring the long-term sustainability of electricity supply in the country.

In order to achieve the 2030 renewable ambition, EirGrid are developing a programme of work called Operational Pathways to 2030. The key objectives of the Operational Pathways to 2030 Programme are as follows:

- Increase the instantaneous amount of non-synchronous RES that can be accommodated on the Irish and Northern Irish power system in a safe and secure manner to 95%+ SNSP on an enduring basis;
- Identify the technical challenges that make the 95%+ System Non-Synchronous Penetration (SNSP) target challenging to achieve, and provide incentives for the industry to invest in developing new technologies to address these;
- Remove barriers to entry and enable the integration of new technologies at scale; and
- Develop and implement operational policies and tools in the control centres to ensure the new technologies are utilised effectively;
- Clarify the system technical needs, both now and projected for the future;

---

<sup>12</sup> EirGrid. 2021. EirGrid Stepping up with New Off-Shore Role in Support of the Government's Climate Action Ambitions: Available at <https://www.eirgridgroup.com/newsroom/tao-for-offshore-assets/>

- Review the Grid Code and Distribution Code and bring forward modifications, as appropriate;
- Establish if the existing system services arrangements will provide the reliable performance required for a system operating with increased levels of RES;
- Design new services if needed, determine appropriate valuation of these services and develop new or revised payment structures that foster a continued focus on performance and where appropriate drive investment;
- Develop a new commercial framework for procurement of system services, taking effect 2023;
- Design and implement an auction system (assuming that the new system services procurement arrangements will be based on competitive auctions) and a settlement system in time for go live of the new arrangements;
- Publish the standards that service providers will need to adhere to and monitor the performance of service providers against these standards on an ongoing basis;
- Develop a framework for flexible network management that will seek to Incentivise the supply and demand sides to provide flexible network services and alleviate network congestion;
- Identify technical scarcities, system needs and operational needs, both now and projected for the future;
- Establish what new/enhanced operational systems and control center tools for power system operation with increased levels of variable non-synchronous RES, increased levels of demand and an evolved network;
- Design specifications for new control center systems and tools, if needed;
- Revise and develop new operational policies to assist in operating the power system with new system services provision capabilities, and the new operational systems and tools;
- Train our people on the new operational policies and tools that will be implemented during the programme;
- Reach agreement with the DSOs on the scope of works throughout this programme;
- Develop an implementation plan based on the agreed scope;
- Agree and implement a 2030 TSO-DSO operating model with the DSOs; and
- Foster a partnership between the TSOs and DSOs that ensures that the needs of both distribution and transmission systems, and ultimately the needs of consumers, are met.

Temporary Emergency Generation (TEG) has been scoped out of the Draft Grid IP and supporting AA and SEA, as EirGrid is neither the developer or future asset owner of any TEG sites, with EirGrid's role limited to procurement<sup>13</sup>. EirGrid have identified a potential generation gap of 700MW for the winter of 23/24, in the absence of any mitigation measures being implemented. The Security of Supply Programme of actions contains a number of both demand and supply-side mitigation measures that are anticipated to address this gap. To address the challenge, the CRU, incorporating the recommendations of EirGrid and in conjunction with the Department of Environment, Climate and Communications (DECC), developed a programme of actions to be delivered by this group in the coming months and years. The processes in this regard will be developed within the Draft Grid IP as well as the Draft SEA ER.

---

<sup>13</sup> The CRU Security of Supply Programme of Actions was published in September 2021 in response to EirGrid's most up to date All Island Generation Capacity Statement 2021, that identified a potential capacity shortfall, if no action is taken, for the winter periods of 2022/23 to 2024/25.

### 3.4.2 Objectives of the Draft Grid IP

The overall objectives of the Draft Grid IP are:

- To realise the vision for grid development set out in EirGrid 's Grid Development Strategy the Shaping Our Electricity Future Report and the Transmission Development Plan (TDP) 2021-2030;
- To review the Draft Grid IP prepared in 2017 and to update it in the context of the Grid Development Strategy, the Shaping Our Electricity Future Report and the Transmission Development Plan (TDP) 2021-2030 and policies, processes and approaches that have been developed in the interim;
- To examine the successes and challenges encountered in the previous Draft Grid IP to integrate the lessons learned into the new IP; the existing SEA Monitoring Programme can inform this;
- To identify and discuss the strategic environmental, social, technical, project development, planning and consenting matters, as well as consultation/engagement opportunities, pertinent to the implementation of the Grid Development Strategy, the Shaping Our Electricity Future Report and the Transmission Development Plan (TDP) 2021-2030; and to draft policies and objectives that will ensure their appropriate consideration in grid development activities undertaken during the Draft Grid IP period; and
- To articulate a strategy for regional grid development based on the Grid Development Strategy, the Shaping Our Electricity Future Report and the Transmission Development Plan (TDP) 2021-2030 and separately to list transmission infrastructure projects that are envisaged as likely to be developed during the plan period, as set out in EirGrid 's TDP 2022.

### 3.4.3 Draft Grid IP Geographical Scale

The Draft Grid IP area covers the Republic of Ireland (ROI)<sup>14</sup>. Ireland is delineated into Nomenclature of Territorial Units for Statistics (NUTS) areas; at the highest level NUTS1 there is the national boundary subdivided into three regional assemblies (NUTS2), which are subdivided further into 8 smaller planning areas (NUTS3).

While the Draft Grid IP is for the Republic of Ireland, the Grid network is operated on an all island grid system and market as detailed in EirGrid 's All-Island Generation Capacity Statement 2020-2029 (EirGrid , 2020). In addition there are existing interconnectors with the UK through both Northern Ireland and Wales' specifically the 500 MW Moyle Interconnector between Auchencrosh in Ayrshire and Ballycronan More in County Antrim, and the 500 MW East West Interconnector from Meath to Schotten (Wales).

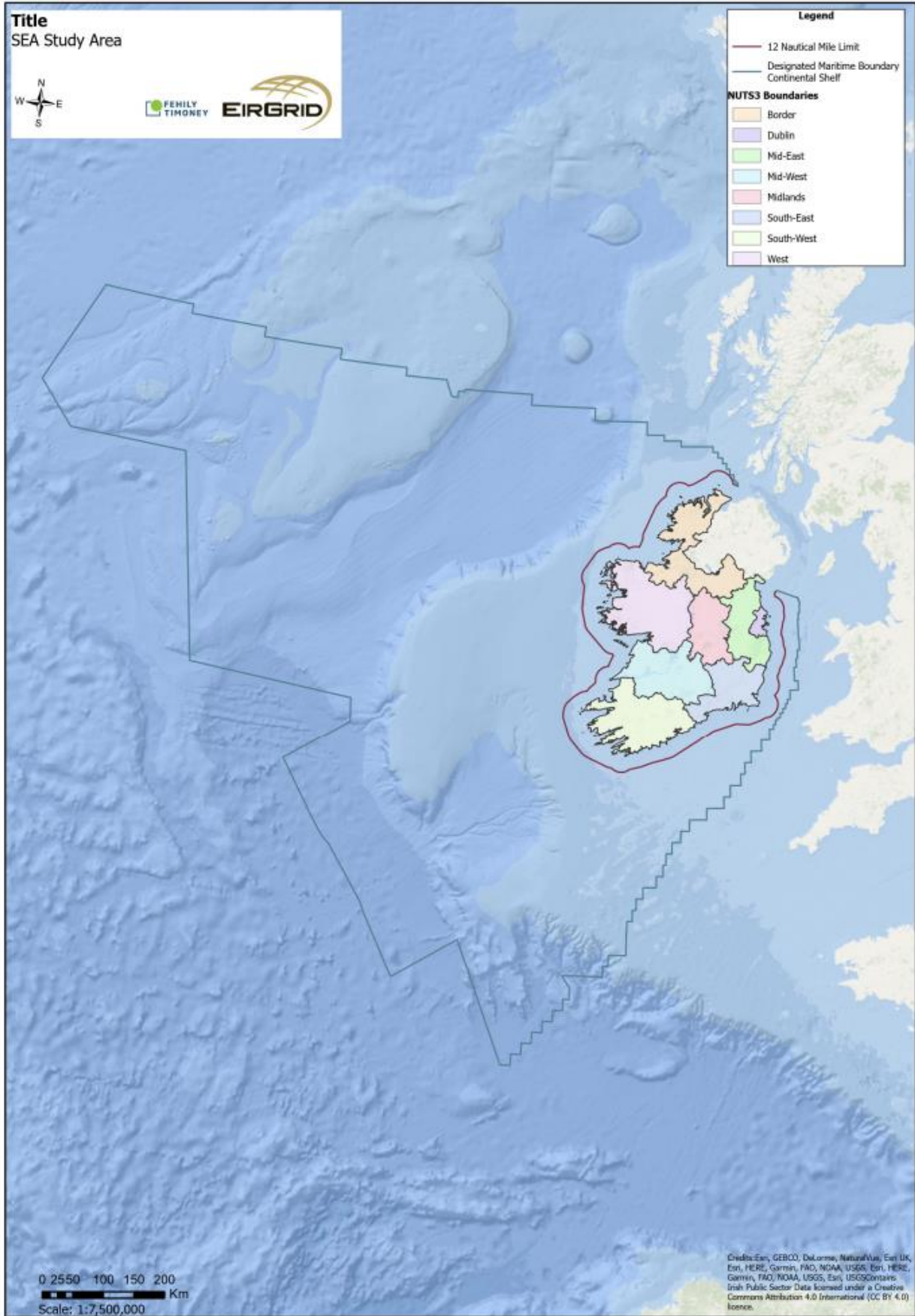
Furthermore, the MW Celtic Interconnector from Claycastle Co. Cork to Brittany in France has been granted and is moving to development phase. Finally, the 500 MW Greenlink Interconnector from Wexford to Pembrokeshire (Wales) is also under construction. Therefore, the Draft Grid IP and SEA will have regard where relevant and or appropriate to the transmission network in the UK and France.

Due to EirGrid 's new role in the context of marine transmission infrastructure, the Draft Grid IP and the associated SEA will be considering the marine environment. The geographic scope could extend to the full EEZ; therefore, the SEA study area<sup>15</sup> as defined in Figure 3-5.

---

<sup>14</sup> Northern Ireland is considered in the context of transboundary effects.

<sup>15</sup> Policies and objectives within the Draft Grid IP will apply to any future development within the EEZ which arises on foot of the IP.



### Figure 3-5: SEA Study Area

#### 3.4.4 The Draft Grid IP Temporal Scale

The Draft Grid IP will be published in mid-2023 and will cover the five year period from 2023 up to 2028. It is currently anticipated that a consultation period of twelve weeks will commence in mid-2023 to gather feedback on the Draft Grid IP and SEA documents.

#### 3.4.5 Public Engagement

EirGrid places social acceptance at the heart of its process development framework. Since adoption of the 2017-2022 IP, EirGrid has published a new Public Engagement Strategy (2021)<sup>16</sup>.

EirGrid's Public Engagement team has grown since the 2017 Draft Grid IP. In addition to the four Agricultural Liaison Officers, it now includes five EirGrid Community Liaison Officer roles to engage with communities and identify key concerns which may require project mitigations (e.g. re-routing of transmission infrastructure).

In 2022, EirGrid published an enhanced Community Benefit Policy<sup>17</sup> as part of its new Public Engagement Strategy. Implementation of the policy, provide direct benefits to communities who are closest to new transmission infrastructure. Funding is provided under three streams: community, sustainability, and biodiversity. Specific requirements for applicants under each stream were being developed at the time of writing; for example, biodiversity projects funded by the scheme will align with the Community Foundation for Ireland Guidance for Community Biodiversity Action Plans.

Funds, which are proportional to the scale of the project, support local good causes, help communities transform their area, and provide the opportunity to each community to become or remain a 'sustainable energy community'. The community benefit scheme becomes live once a project receives planning permission.

In 2022, EirGrid embarked on a year-long series of citizens roadshow events to inform local communities on EirGrid's plans to future-proof the electricity grid and provide information including microgeneration, retrofitting grants, and regional development issues.

The roadshows follow on from the 2021 Shaping Our Electricity Future consultation programme during which EirGrid sought views and inputs from all sectors of society and industry about grid development

The community benefit scheme becomes live once a project receives planning permission.

---

<sup>16</sup> EirGrid (2021) Stakeholder engagement plan <https://www.eirgridgroup.com/site-files/library/EirGrid/EirGrid-Draft-Stakeholder-Engagement-Plan-2021.pdf>

<sup>17</sup> EirGrid. 2021. Community Benefit Policy: Available at <https://www.eirgridgroup.com/site-files/library/EirGrid/209130-EirGrid-Community-Benefit-Policy-A4-Report-final.pdf>

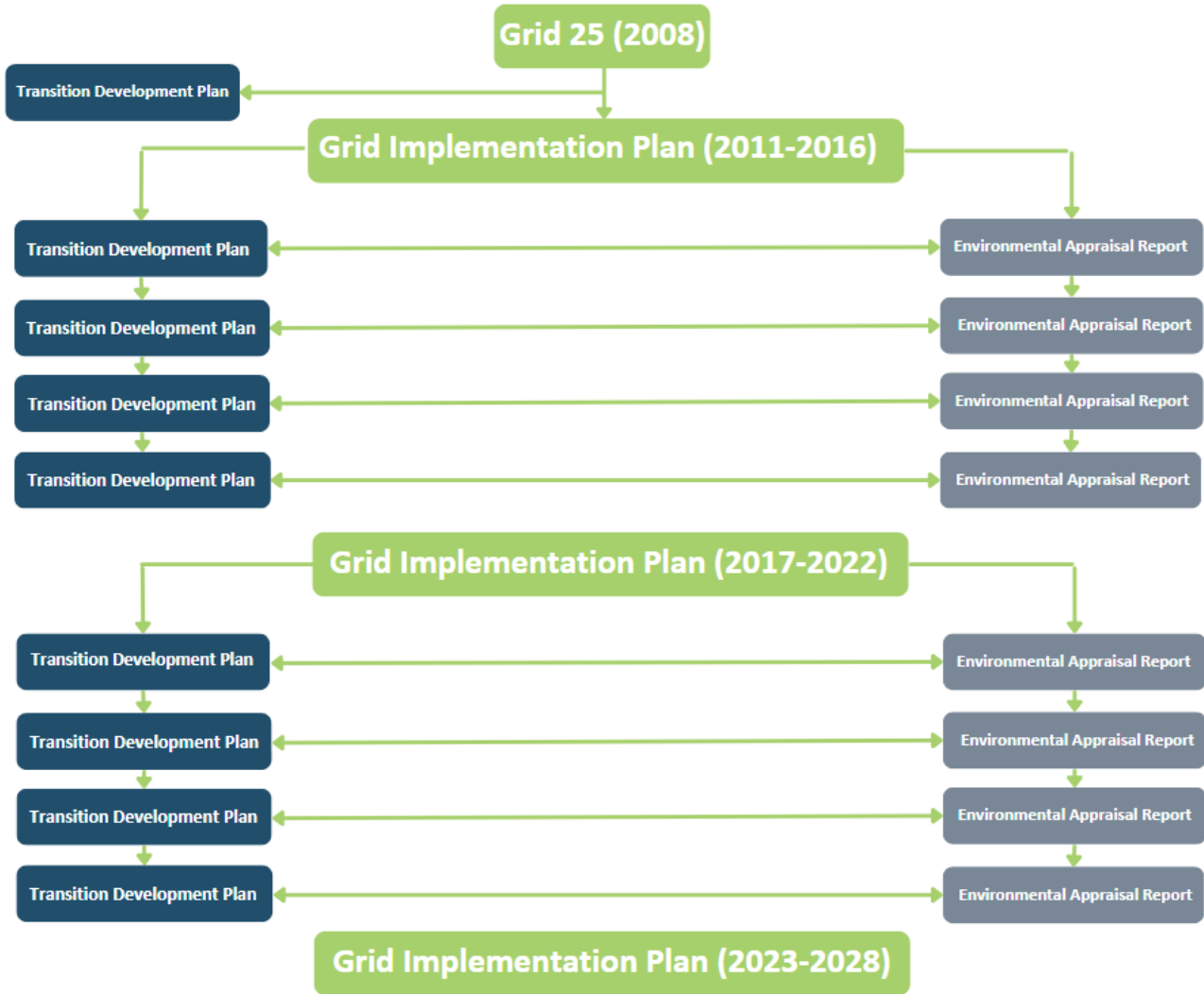


Figure 3-6 Progression of Grid25 Strategy and associated Implementation plans, Environmental Appraisal Reports and Transmission Development Plans.

## 4. STRATEGIC ENVIRONMENTAL ASSESSMENT METHODOLOGY

### 4.1 The Requirement for SEA

SEA is required under the EU Council Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (the SEA Directive) and transposing Irish Regulations (the European Communities Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No 435 of 2004) as amended by S.I. No. 200 of 2011 (European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011) and S.I. No. 201 of 2011 (Planning and Development (Strategic Environmental Assessment) (Amendment) Regulations 2011) respectively. Their purpose is to enable plan-making authorities to incorporate environmental considerations into decision-making at an early stage and in an integrated way throughout the plan making process.

In *Screening* the need for SEA, EirGrid referred to Article 9(1) of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004). This process concluded that the Draft Grid IP falls under a sector covered by the SEA Directive, namely energy.

Therefore, the process of SEA and Appropriate Assessment (AA) and associated consultation have been ongoing throughout the development of the Draft Grid IP.

### 4.2 The SEA Process

The SEA process can be defined by four stages, all of which include some level of consultation (refer to Figure 4-1). These stages are defined as:

- **Stage 1** – Screening: deciding whether SEA is required;
- **Stage 2** – Scoping: establishing the spatial and temporal scope of the SEA and a decision-making framework that can be used to evaluate the likely significant effects;
- **Stage 3** – Identification, Prediction, Evaluation and Mitigation of likely significant effects; and
- **Stage 4** – Consultation, Revision and Post-Adoption. This includes the implementation of statutory SEA monitoring.

Stage 1 and Stage 2 of the SEA process are complete and the outputs of both stages - the SEA Screening<sup>18</sup> and the SEA Scoping Report - are available on the EirGrid website ([www.EirGrid.com](http://www.EirGrid.com)).

Stage 3 (the current stage) forms the main written output of the SEA process, the Draft SEA ER. Responses received from Stage 2 (stakeholder consultation) have been taken into consideration at this stage, and the decision-making framework established through Stage 2 has been used to evaluate the likely significant effects of the Draft Grid IP on the environment. This report presents information on the environmental assessment and likely environmental issues related to the implementation of the Draft Grid IP.

---

<sup>18</sup> In *Screening* the need for SEA, EirGrid referred to Article 9(1) of the European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004).

During the next stage of the SEA process (Stage 4), EirGrid published a post adoption SEA Statement alongside the final Plan setting out how the SEA and any consultation responses have influenced the final Draft Grid IP.

#### 4.2.1 Appropriate Assessment (AA)

In addition to compliance with the SEA Directive, the preparation and implementation of the Draft Grid IP must meet the provisions of the EU Habitats Directive (92/43/EEC) which has been transposed into Irish law by the Planning and Development Act 2000 (as amended)<sup>19</sup> and the European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477/2011).

Article 6(3) and 6(4) of the Habitats Directive sets out the decision-making test for plans and projects likely to affect a European site. Article 6(3) establishes the requirement for AA and requires that:

*“Any plan or project not directly connected with or necessary to the management of the [European] site but likely to have a significant effect thereon, either individually or in combination with other plans or projects, shall be subjected to Appropriate Assessment of its implications for the site in view of the site’s conservation objectives. Considering the conclusions of the assessment of the implications for the site and subject to the provisions of paragraph 4, the competent national authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned and, if appropriate, after having obtained the opinion of the general public.”*

To comply with this Directive, it must be first established, through an initial screening assessment, whether:

- (1) the Draft Grid IP is directly connected with or necessary for the management of a European site(s); and
- (2) it is likely to have a significant adverse effect on a European site(s), either individually or in combination with other plans or projects.

The Draft Grid IP is not directly connected with or necessary for the management of European site(s) and therefore the AA was undertaken to assess the potential for the Draft Grid IP to result in likely significant effects leading to adverse effects on the integrity of European sites(s). The screening for AA (detailed in the AA Screening Section within the overall Natura Impact Statement) concluded that the Draft Grid IP had the potential to have a significant effect on European sites and therefore stage 2 AA of the Draft Grid IP was required.

The AA is being undertaken concurrently with the SEA, but both processes are clearly distinguished. The AA is documented in a Natura Impact Statement (NIRs), as shown in Figure 4-1. The mitigation measures required on foot of this process have been integrated into the Draft Grid IP itself as policies and objectives.

A competent authority for the purpose of SEA is defined under S.I. No. 435 of 2004 as the authority which is, or the authorities which are jointly, responsible for the preparation of a plan or programme, or modification to a plan or programme. EirGrid is therefore the Competent Authority with respect to this Draft Grid IP and is obliged to determine whether the Draft Grid IP could give rise to significant effects on the environment.

---

<sup>19</sup> As well as the Planning and Development (Amendment) Act 2021



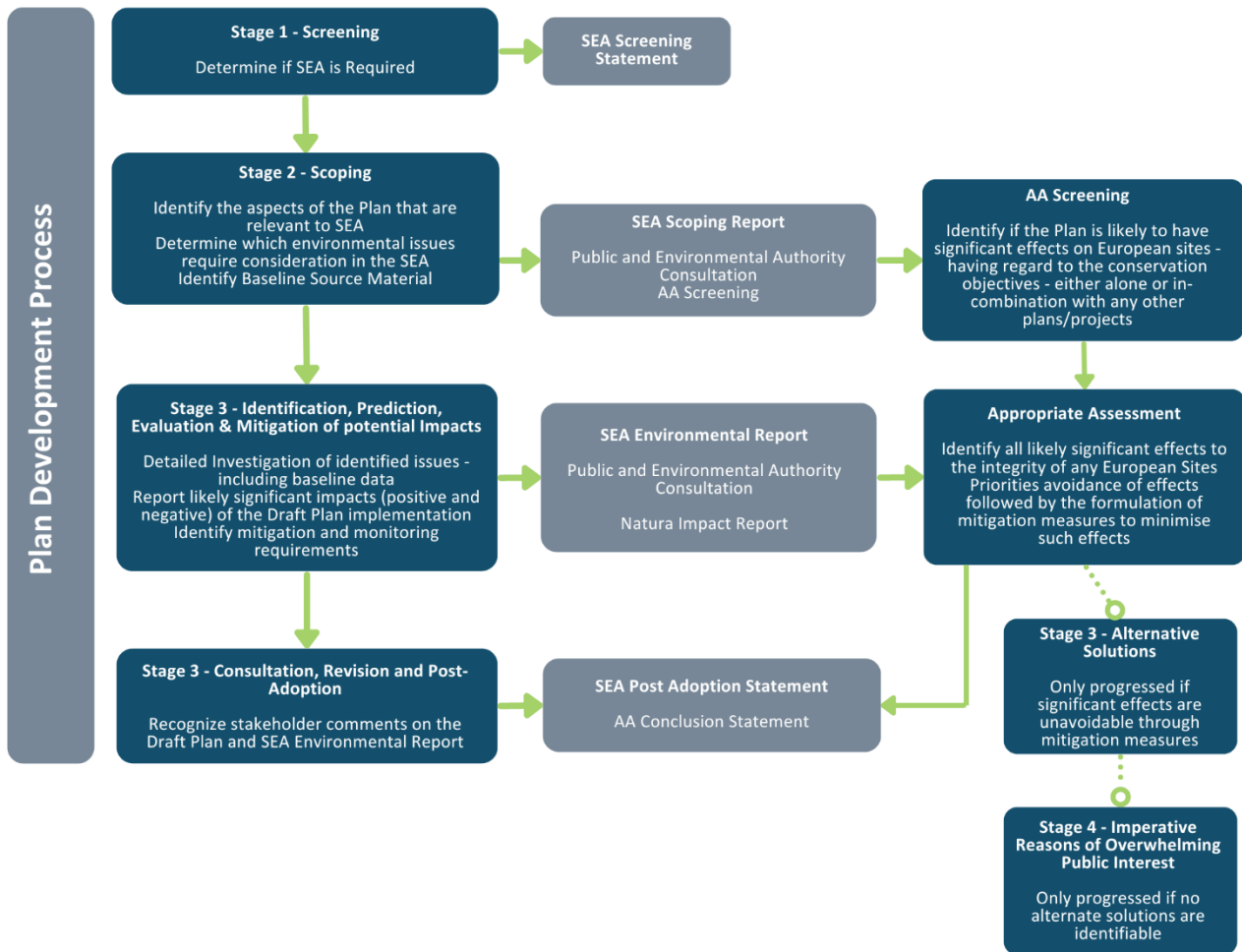


Figure 4-1: SEA/AA Stages and Key Deliverables



Figure 4-2 SEA/AA Process overview

#### 4.2.2 SEA – Stage 3 (Current Stage)

Stage 3 of the SEA process (the assessment stage) was undertaken in several phases, as set out below, and shown graphically in Figure 3-5:

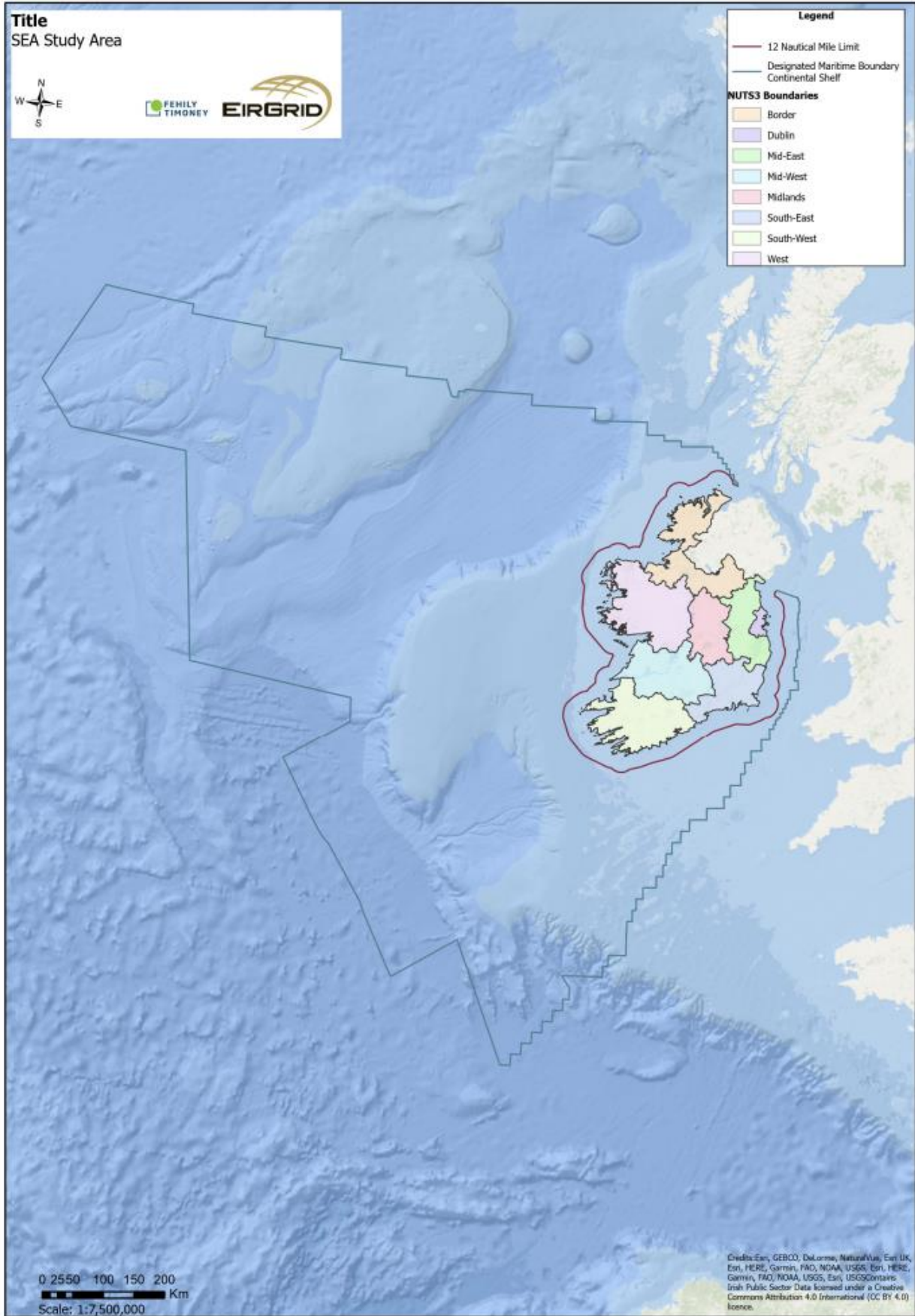
- **Consultation and Baseline:** Information gathered during the SEA scoping exercise was collated and expanded upon. This included a review of the findings of the EirGrid Evidence Based Environmental Studies (EBES) – summarised in Appendix E, the EPA State of the Environment Report (2016) and consultation submissions received during the scoping stage. More detail is provided in Section 7. and Section 8.
- **Plan and Policy Review:** A review of relevant national and regional plan and policy documents was undertaken both to identify the key environmental issues, ensure that the policies and objectives set out in the Draft Grid IP meet the requirements of all relevant plans and policies. More detail is provided in Section 7. .
- **Key Environmental Issues:** The key environmental issues were identified based on the baseline data, EBES and the plan and policy review. More detail is provided in Section 8.
- **Strategic Environmental Objectives (SEOs):** The SEOs which were presented as draft in the SEA Scoping Report were finalised, considering phases A to C above. More detail is provided in Section 11.
- **Assessment:** Using the SEOs, the assessment of likely significant effects associated with the Draft Grid IP component (policies and objectives, projects and alternatives to the Plan) was undertaken. This assessment of likely significant effects took account of “inherent mitigation”. Inherent mitigation is considered to be the in- house processes within EirGrid such as the six-step Framework for Grid Development, the EirGrid Environmental Guidelines and statutory processes (i.e., EIA, AA and planning as required). More detail is provided in Section 10. and Section 11.
- **Mitigation and Recommendations:** Based on this assessment, and the likely significant effects, mitigation and recommendations have been proposed. More detail is provided in Section 12.
- **Monitoring:** The final step is the development of the SEA monitoring framework. More detail is provided in Section 13.

#### 4.2.3 SEA Study Area

The Draft Grid IP plan area is detailed in Section 3.4.3. The Study Area for the SEA covers the entirety of the land mass of Ireland as shown in Figure 4-4 and relevant territorial seas (12 nautical mile area around the coast). In addition, the SEA assesses any likely significant effects on the surrounding environment in the context of potential offshore connections and / or cumulative and transboundary effects as applicable.



Figure 4-3: Overview of Stage 3 of the SEA Process for the Draft Grid IP



## Figure 4-4: SEA Study Area

### 4.2.4 Transboundary Effects

The SEA directive requires that where the Draft Grid IP has potential for transboundary environmental effects these must be addressed within the SEA. EirGrid is the Irish TSO in the ROI. The development of the NI transmission networks is provided for by the Transmission Development Plan for Northern Ireland (TDPNI) which is subject to SEA by SONI.

EirGrid is the TSO in Ireland, but the Draft Grid IP also relates to grid development in Northern Ireland as the transmission system is being developed as an all-island system. As such, the Draft Grid IP (and SEA/AA) has assessed potential transboundary effects in Northern Ireland.

The potential for interconnection with France has been included in EirGrids plans and strategies since 2012; this project has been consented and is now at construction phase – further details provided below.

Consultation was undertaken via the SEA Scoping Report with the Northern Ireland Environment Agency (NIEA), the Ministry of the Environment (Ministère de l'Environnement, de l'Énergie et de la Mer) in France and the Welsh government.

NIEA provided feedback in regard to the SEA Scoping Report on the 24<sup>th</sup> of January 2023. The main points with the consultation material relate to consideration of potential effects to European sites, and protected sites on the NI side of the national border:

*'DAERA would like the Draft SEA ER to contain a clear statement indicating the opinion about whether or not the implementation of the of the strategy is likely to have a significant effect on Northern Ireland, in combination with any identified measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment.'*

*The SEA should consider all potential impacts including those which may impact Northern Ireland both directly and indirectly. Consideration should be given to all potential impacts on NI habitats (particularly designated sites, priority habitats and those important for migratory species and NI populations) including habitat quality and conservation status.'*

In addition, the NIEA provide data sources to include in the process as well providing support for the approach:

*" We welcome that monitoring will be put in place in due course and look forward to the opportunity to comment further as the process develops."*

All such comments and considerations are being integrated into the SEA and AA processes as well as the Draft Grid IP development process.

To date no consultation responses have been received by the other transboundary consultees in relation to the SEA Scoping Report. Efforts will be made throughout the Draft Grid IP public consultation period to engage with these agencies directly again. A copy of the Draft Grid IP and this Draft SEA ER will be made available to the transboundary consultees.

#### 4.2.5 Integrating the SEA, AA and the Draft Grid IP

The SEA and the AA have been fully integrated into the development of the Draft Grid IP, as shown in Figure 4-1. Integration of both the SEA and AA processes into the development of the Draft Grid IP ensure that, where possible, it meets the requirements of the SEA and Habitats Directive and takes account of consideration of alternatives and identification of mitigation through the SEA process.

### 4.3 Progress since the Grid Implementation Plan 2017-2022 and associated SEA/AA

EirGrid have continued to develop and improve the national grid producing annual Transmission Development Plans (TDPs) which have all been subject to Environmental Appraisal Reports (for compliance with the SEA of the Draft Grid IP 2017-2022) and submitted to the CRU along with the TDP. These reports track the development of the processes and infrastructure within the national Grid.

Furthermore, EirGrid have been undertaking SEA Monitoring in consultation with the EPA and are currently developing an online interactive 'story-map' to ensure the monitoring results are easily accessible. EirGrid are also exploring the use of dashboarding, to share metrics on ongoing SEA monitoring data.

EirGrid have implemented mitigation measures from the SEA of the 2017-2022 IP; EirGrid have a strategic corporate commitment to review and update EirGrid 's Evidence-Based Environmental Studies (EBES) in 2023 and 2024. EirGrid also continues to produce relevant guidelines including:

- EirGrid marine addendum to Ecology Guidelines for Electricity Transmission Projects (in press at time of writing);
- EirGrid 2020. Ecology Guidelines for Electricity Transmission Projects - A Standard Approach to Ecological Impact Assessment of High Voltage Transmission Projects;
- EirGrid 2019. The Electricity Grid and Your Health: Answering your questions.

These Guidelines are based on evidence from the literature base and/or field studies to provide practical guidance to practitioners, consultants, and competent authorities in the planning and design of transmission infrastructure from the perspective of a particular environmental topic.

#### 4.3.1 Transmission Development Process

The existing transmission development framework (summarized in 'Have Your Say', 2017<sup>20</sup>) followed by EirGrid is under constant review - The current transmission development process is outlined below.

The approach comprises a 6-step Framework for Grid Development that provides an “end-to-end” structure for all grid projects. It ensures an appropriate balance between technical, economic, environmental, social and community considerations, with significant provision for stakeholder engagement at all stages. A general structure of the 6-step Framework. The process will be further detailed in the Draft Grid IP and the Draft SEA ER.

---

<sup>20</sup> [https://www.eirgridgroup.com/\\_\\_uuid/7d658280-91a2-4dbb-b438-ef005a857761/EirGrid-Have-Your-Say\\_May-2017.pdf](https://www.eirgridgroup.com/__uuid/7d658280-91a2-4dbb-b438-ef005a857761/EirGrid-Have-Your-Say_May-2017.pdf)

## 4.4 Plan Alternatives

The SEA Directive requires the SEA process to identify and describe ‘reasonable alternative’ means of achieving the strategic goals of the IP. The reasons for selecting (a) the alternatives and (b) the preferred alternative will be documented, together with a description of how this assessment of alternatives was undertaken. Alternatives will be assessed against the environmental objectives established for the key aspects of the environment likely to be significantly affected and clear justification for the selection of the preferred alternative/combination of alternatives will be provided. This assessment will be presented in the Environmental Report and where relevant, in the SEA Statement (Stages 3 and 4 of the SEA process).

As the IP has three distinct facets (onshore TSO, offshore TSO & TSA, and the development of temporary emergency generation) The consideration of alternatives will be undertaken for all three facets. Alternatives presented here as draft will be considered during the development of the IP and at a minimum include consideration of the following:

- Alternative 1 – No plan option – strategic development is ad hoc (essentially a do nothing scenario from a plan making/SEA perspective);
- Alternative 2 – Strategy option: no plan but reference to provisions of the existing Grid Implementation Strategy, Shaping our Electricity Future, and/or the CRU Consultation on TDP 2022-2032; and
- Alternative 3 – Preparation of and adherence to specific policies and objectives for Grid Development having heed to all relevant policy documents bringing together a coherent unified approach.

## 4.5 Scenario Planning

As part of the process to plan the development of the electricity transmission grid to meet future needs, EirGrid has developed a range of four scenarios which could potentially emerge and influence how electricity generation and consumption might change over time. The Grid needs to be sufficiently flexible to enable it to manage the supply and demand patterns which emerge under each potential scenario, whilst still ensuring fulfilment of sustainability objectives. Scenario planning therefore aims to encourage flexible, robust and sustainable approaches to grid development.

The aim of this scenario planning is to allow EirGrid to better explain what is driving the need for individual grid development projects and demonstrate how the electricity grid enables the achievement of national and international policy objectives. The scenarios will be reviewed every two years and include any new information available. The four draft scenarios are summarised in Table 4-1 below.

**Table 4-1 Planning scenarios**

Scenario	Description
Steady Evolution	Steady improvements in the economy and in technologies which generate electricity result in renewable electricity generation continuing to grow at a steady pace. New consumer technologies help to increase energy efficiency in homes and businesses.
Slow Change	Slow economic growth and a slow response to renewable policies results in little change in the way electricity is generated. The adoption of new technologies at residential, commercial and electricity



	generation levels have been slow due to a risk adverse approach. Ireland’s 2030 emission targets are missed under this scenario.
Low Carbon Living	High economic growth encourages the creation and rollout of new technologies for low carbon electricity generation. A strong public demand to reduce GHG emissions, in addition to high carbon prices and incentives for renewables, creates a high level of renewable generation on the grid.
Customer Action	A strong economy leads to high levels of consumer spending ability. The public wants to reduce greenhouse emissions therefore electricity consumers enthusiastically limit their energy use and generate their own energy. This results in a large number of community led energy projects and a rapid adoption of electric vehicles and heat pumps in the home.

#### Key Messages from Section 4 of this report:

- SEA is a four-stage process. Stage 1 and 2 are complete and we are currently at Stage 3.
- The development of the Draft Grid IP, the SEA and the AA are being undertaken in tandem.
- Stage 3 of the SEA has been undertaken as follows:
- The baseline data (Section 6. ), feedback from the SEA Scoping Stage (Section 5. ) and a review of relevant plans and policy (Section 7. ) have informed the identification of both the key environmental issues (Section 8. and the development of the Strategic Environmental Objectives (SEOs) (Section 9.
- The likely significant effects of the Draft Grid IP are assessed against these SEOs taking into consideration mitigation (Section 11. ).
- Mitigation and/or recommendations have been developed (Section 12. ).
- A monitoring framework will be set up to track progress against the SEOs (Section 13. ).
- Significant progress was made on the previous Draft Grid IP SEA mitigation plan including the completion of ten Evidence Based Environmental Studies and three Environmental Guideline documents.
- There are three reasonable alternatives to the Draft Grid IP: reliance on the Grid Strategy, continuation of the previous Draft Grid IP and the current Draft Grid IP alternative.
- EirGrid have developed four possible future energy scenarios to assist in planning for the Grid into the future.
- The six-step Transmission Development Process ensures the assessment of alternative options, technologies and locations is embedded within the EirGrid project development.

## 5. CONSULTATION

### 5.1 Background

EirGrid endeavour and intend to comply with the EirGrid Stakeholder Engagement Plan when preparing the Draft Grid IP.

As per EirGrid (2021) Stakeholder engagement plan - EirGrid's approach to engagement is tailored to suit the project or initiative. A bespoke engagement plan is used for each key project or initiative, identifying the channels we will use to provide information and notification to the stakeholders. This can include emails to customers and stakeholders, project brochures and updates, targeted social media content, advertising in local and national press, letters to landowners and statutory bodies, providing spokespeople for discussions on public radio, providing phonelines and conducting webinars. For grid development projects, it also includes promotion in public locations and open days in the local area where members of the public can meet the experts and have their queries addressed.

Stakeholders are invited to provide feedback in multiple formats including feedback forms online and at open days, through fora and webinars and by email or letter. Stakeholders can also engage directly with a dedicated Community Liaison Officer or Agricultural Liaison Officer for each grid development project. Customers can engage directly with their Customer Account Manager.

Engagement principals:

- Involve stakeholders early in the process so they can influence plans;
- Provide information in plain English that is accessible;
- Provide enough time for people to contribute their views;
- Offer clear opportunities for engagement and ways to influence the decision-making process;
- Explain decisions that need to be taken and factors that influence those decisions; and
- Communicate with everyone who has taken the time to engage with us and explain how feedback shaped our eventual decision or approach.

### 5.2 Consultations with environmental authorities

As part of the SEA scoping process, environmental authorities<sup>21</sup> specified under the Planning and Development (SEA) Regulations (as amended) were notified that a submission or observation in relation to the scope and level of detail of the information to be included in the Draft SEA ER can be made to EirGrid. This draft report was, alongside ongoing data collection and any SEA Scoping submissions made by environmental authorities, inform the preparation of a final SEA Scoping Report.

---

<sup>21</sup> The following authorities are statutory consultees: Department of Agriculture, Food and the Marine; Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media, Department of the Environment, Climate and Communications; Minister of Housing, Local Government and Heritage; and Environmental Protection Agency.

In line with SEA regulations this SEA Scoping Report was issued to the following statutory Environmental Authorities<sup>22</sup>:

- Department of Agriculture, Food and the Marine;
- Department of Tourism, Culture, Arts, Gaeltacht, Sport and Media;
- Department of the Environment, Climate and Communications;
- Minister for Housing, Local Government and Heritage; and
- Environmental Protection Agency
- Northern Ireland Environment Agency (NIEA) (transboundary related);
- Ministry of the Environment (ministère de l'environnement, de l'énergie et de la mer) (transboundary related);
- National Assembly for Wales (transboundary related); and
- The Countryside Council for Wales (transboundary related).

All comments received from the statutory and non-statutory stakeholders on this SEA Scoping Report were considered during the next stage of the SEA and the Draft Grid IP development as well as considerations relating to the overall SEA and AA processes. Where new baseline data and/or plans have been identified these have been included as required in the assessment.

The environmental authorities will be further consulted with regard to the Draft Grid IP itself along with the DRAFT SEA ER and NIR.

Submissions were received from the following stakeholders:

- The EPA;
- Failte Ireland;
- EDF Renewables;
- NPWS;
- Geological Survey Ireland (GSI);
- Meath County Council;
- Monaghan County Council;
- North Western Regional Assembly;
- Northern Ireland Environment Agency (NIEA) Department of Agriculture, Environment and Rural Affairs (DEFRA) (NI); and
- The Department of Communications - Historic Environment Division (HSE).

Details of the submissions received are contained in **Appendix C**. The submissions received on the SEA Scoping Report primarily contained information as follows:

---

<sup>22</sup> Recent governmental changes may require amendments to the exact name convention of these environmental authorities. The EPA have recommended that until a Departmental Circular is issued with the new names of the Departments, that the existing circular is to be used.

- Submissions highlighted new or existing data sources such as the DAERA map browser for NI protected sites and known priority habitat or the Fáilte Ireland EIAR Guidelines.
- Submissions highlighted other plans that could be relevant to the development of the Draft Grid IP;
- Some recommendations were made in relation to the SEOs such as those from the NIEA in relation to marine biodiversity within the SEOs;
- The NPWS made comment that “*Biodiversity protection and restoration needs to be clearly embedded in all sectoral development plans including the draft EirGrid IP*”; and
- The EPA recommended that key issues and challenges described in the EPAs SOER2020 should be taken into account.

### 5.3 Stakeholder Consultation on the Draft Grid IP and Environmental Assessments

In addition to the above statutory Environmental Authorities, EirGrid currently seeks to engage by emailing details of the consultation portal and process with the following stakeholders (in alphabetic order):

- An Taisce;
- Birdwatch Ireland;
- Bord na Móna (BNM);
- Coastwatch;
- Coillte;
- Department of Agriculture, Environment and Rural Affairs (Northern Ireland);
- Department of Enterprise, Trade and Employment;
- Department of Transport;
- Department of Public Expenditure and Reform;
- ESB;
- Fáilte Ireland;
- Gas Networks;
- Geological Survey of Ireland (GSI);
- Geological Survey of Northern Ireland (GSNI);
- Industrial Development Authority (IDA);
- Inland Fisheries Ireland (IFI);
- Inland Waterways Association of Ireland (IWAI);
- Irish Whale and Dolphin Group;
- Landscape Alliance Ireland;
- Local Authorities;
- Marine institute;
- Office of Public Works (OPW);
- Regional Authorities<sup>23</sup>;

---

<sup>23</sup> Eastern and Midland Region. Northern and Western Region. Southern Region.

- Rte. (Réseau de Transport d'Électricité - French Transmission System Operator);
- Sustainable Energy Authority of Ireland (SEAI);
- Teagasc;
- Tourism Ireland;
- University College Cork - Sustainable Energy Research Group;
- Wind Energy Ireland;
- Aviation Authority and Air Navigation Ireland; and
- University College Dublin - Electricity Research Centre.

An electronic copy of the Draft Grid IP and this Draft SEA ER was made available to the above stakeholders via email for review and comment. No significant effects have been identified in relation to France or the UK. However, these stakeholders were notified on the publication of the Draft Grid IP and associated Draft SEA ER and NIS and comments from relevant stakeholders have been taken into consideration.

### 5.3.1 Public Consultation

EirGrid understands that the public also have an important role to play in helping us identify all the key issues relating to the Draft IP, and we are keen to hear what you think. EirGrid will consult with a variety of local, regional, and national public, civic, and community groups. In keeping with EirGrid's existing public engagement strategy, EirGrid will use their digital Consultation Portal to optimize timely engagement, and minimize time required for the public to input. A copy of this report will be made available to the public via the EirGrid's website ([www.eirgridgroup.com](http://www.eirgridgroup.com)).

All comments received from the statutory and non-statutory stakeholders on this Draft SEA Scoping Report were (following publication of a revised SEA Scoping Report)\_ considered during the next stage of the SEA and the Draft Grid IP development as well as considerations relating to the overall SEA and AA processes.

#### Key Messages from Section 5:

- The Draft Grid IP, Draft SEA ER and NIS were issued to statutory Environmental Authorities in line with the SEA regulations.
- Public consultation was undertaken in line with the SEA Regulations.
- EirGrid are committed to seeking meaningful public and stakeholder engagement at all stages of SEA and plan development.
- In addition to statutory consultees on SEA, the public were engaged, with consultation portal details issued to (31 no.) public participation networks, and other civic society groups at both scoping and Draft Plan consultation steps.
- Draft SEA ER NIS

## 6. BASELINE INFORMATION

### 6.1 Introduction

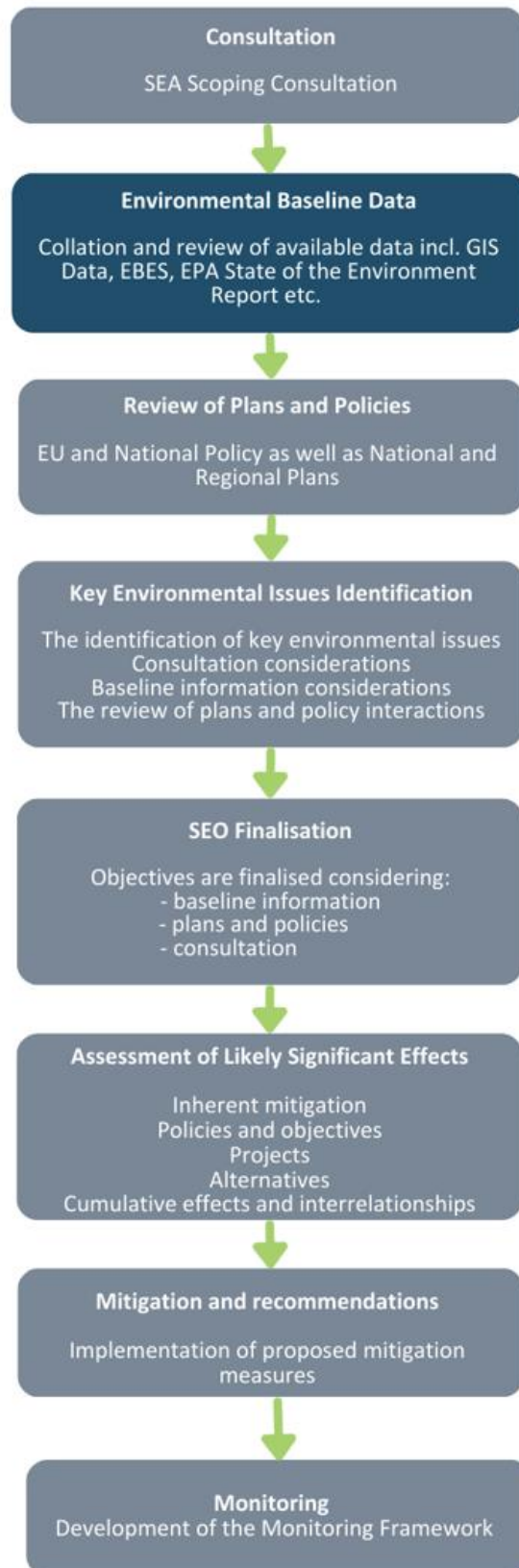
The baseline describes the current environmental conditions in the absence of the Draft Grid IP at a defined point in time. This provides a benchmark to which the predicted environmental effects can be assessed. Details of the baseline environment and future trends in the absence of the Draft Grid IP for each environmental topic were outlined in the SEA Scoping Report published in January 2023. This baseline detail has been updated as relevant and provided in Section 6.2 to 6.2. In addition, a GIS database of environmental constraints and existing and planned grid infrastructure has been created to inform the SEA and the AA process.

During the SEA scoping phase consultation, the EPA highlighted their State of the Ireland's Environment – An Integrated Assessment 2020<sup>24</sup>. This report provides:

- Current Assessment of Ireland's Environment;
- Key Messages for Ireland on the State of the Environment; and
- Actions for a Cleaner Greener Environment.

The report identifies that *'that the overall quality of Ireland's environment is not what it should be'*. Moreover, there is a need to *'accelerate the implementation of solutions across all sectors and society. The environmental challenges that Ireland faces are giving rise to complex and systemic issues. They cut across different environmental topics, such as climate, air, soil, water, biodiversity and waste, and across organisations and sectors, business and all levels of society. They are taxing economically, sociologically, technically and administratively'*. The details of this report are considered throughout the assessment.

A review of the EirGrid EBES and guideline documents was also undertaken. The studies are an important source of baseline information as they assess how the existing transmission system interacts with the natural and human environment. They are important sources of information to identify key issues related to the Draft Grid IP and subsequent identification of likely significant effects.



<sup>24</sup> [State of Environment Report | Environmental Protection Agency \(epa.ie\)](https://www.epa.ie/state-of-environment-report)

## 6.2 Population, Human Health and the Economy

### 6.2.1 Introduction

Information provided in this section is based on readily available baseline data from web-based searches and Geographic Information Systems (GIS) information. It is noted that the current CSO 2022 Census release dates will be at a date later than the preparation of this draft SEA, accordingly the most recent and relevant information available has been used. The existing transmission network interacts in and around urban areas due to the function of the transmission grid to carry electricity from where it is generated to where it is required (EirGrid , 2016f).

### 6.2.2 Current Conditions

#### 6.2.2.1 *Population*

A review of the current population trends in Ireland shows that the population has grown from approximately 4.76 million in 2016 to approximately 5.12 million people in 2022 - this is an increase of 7.6% - as per the Central Statistics Office (CSO) census data 2022<sup>25</sup>; population growth rates vary at each local authority level but show overall increases (refer to Table 6-1 below). As of 2021 64% of people live in urban areas which contrasts with 46.4% in 1961.

Figure 6-1 shows the settlement patterns within Ireland. The existing transmission network avoids the majority of urban areas; however, they clearly interact in and around the main urban areas due to the function of the transmission grid to carry electricity from where it is generated to where it is required (EBES Study 9).

Household energy use nationally is derived predominantly from natural gas and oil heating. Considerations will have to be made in relation to any potential changes to these demands on foot of COVID19 and the shift towards working from home and/or remote working dynamics.

---

<sup>25</sup> Central Statistics Office. 2022. Census Data 2022: FP004 Preliminary Population as per Member of Dáil Éireann and Percentage Change 2016-2022: Available at <https://data.cso.ie/>

**Table 6-1 Population of Administrative Counties - between 2016 and 2022 (Source: CSO, 2022 )**

Council Area	Change 2016-22 %
Carlow	+8.8%
Cavan	+6.6%
Clare	+7.2%
Cork City	+5.9%
Cork County	-14% <sup>26</sup>
Donegal	+4.5%
Dublin City	+6.1%
Dún Laoghaire-Rathdown	+7.1%
Fingal	+11.2%
Galway City	+4.4%
Galway County	+7.6%
Kerry	+5.1%
Kildare	+11.0%
Kilkenny	+4.5%
Laois	+8.2%
Leitrim	+9.5%
Limerick City and County	+5.4%
Longford	+14.1%
Louth	+7.9%
Mayo	+5.2%
Meath	+12.9%
Monaghan	+5.6%
Offaly	+6.0%
Roscommon	+8.4%
Sligo	+6.5%
South Dublin	+7.5%
State	+7.6%
Tipperary	+5.1%
Waterford City and County	+9.4%
Westmeath	+8.0%
Wexford	+9.2%
Wicklow	+9.2%

<sup>26</sup> It is important to note that this apparent population decline is actually due to a functional change in the Cork City boundary which was extended to include areas such as Ballincollig



### 6.2.2.2 Health

Overall, the health of the population is generally ‘Good’ to ‘Very Good’ based on the available information provided by the CSO (2020). CSO statistics from 2021 – particularly for In-patient day cases with principal - respiratory diseases (14%) were the most prevalent conditions for all ages followed by circulatory diseases (12%), Injury and poisonings (12%), external causes (12%) and neoplasms (9%).

**Table 6-2 Self Perceived Health Survey (Source: CSO, 202027)**

Age range	Good or Very good	Fair	Bad or Very Bad
15-24	94%	5%	1%
25-34	93%	6%	1%
35-44	91%	6%	2%
45-54	87%	10%	3%
55-64	78%	16%	6%
65-74	71%	22%	7%
75+	60%	30%	10%
Average	48%	13%	2%

Independent and authoritative international panels of scientific experts have reviewed studies on possible health effects from EMFs. These have concluded, based on the weight of the evidence available, that the power frequency electric and magnetic fields encountered in normal living and working conditions do not cause adverse health effects in humans when properly designed and constructed. These form the basis for guidelines published by the International Council on Non-Ionising Radiation Protection (ICNIRP) with regard to EMF, to which EirGrid and ESB Networks have strict regard in the design and operation of the transmission system.



Figure 6-1 Major Settlement Patterns within Ireland (Source: OSI)

### 6.2.2.3 Economy

The COVID pandemic affected 96% of businesses to some degree. Employment rate increased significantly from 2017 to 2019, before dropping sharply due to the pandemic. Irish economy experienced recovery in 2021 following easing of health restrictions. However Russia's invasion of Ukraine is having significant impacts on the global economy, and in July 2022 reached 9.1 the highest level in 38 years.

From 2015, there have been indicators that the Irish economy is recovering as the GDP has grown to 5.2% in 2022. In 2012, the unemployment rate rose to its highest rate, 15%, since the recession began in 2008 and as of April 2023, unemployment was down to 3.9% (approximately 108,200 Persons) (CSO, 2022)<sup>27</sup>. Additionally, Ireland's GDP grew by approx. 13.6% in 2021<sup>28</sup>. Transmission infrastructure is considered as a key component for sustainable economic development. This shows that the transport sector has the high demand for energy as well as residential and industry and therefore require key considerations in relation to interactions with the grid.

EirGrid have produced many Evidence Based Environmental Studies (EBES), two of which have direct relevance to Population, Human Health and the Economy (EBES 1 EMF and 9 Settlement & land use); and 2 have indirect relevance (EBES 8 Noise and 10 Landscape & visual). The outcomes of the EBES will be used in the development of EirGrid projects and considered throughout the SEA process. EirGrid has also committed to commence review and update of the EBES in 2024.

#### Key Issues and Interactions with the Plan

The key issues in relation to Population, Human Health and the Economy are as follows:

- Population and development growth will grow the energy requirement within Ireland;
- Settlement patterns influence the location and acceptability of transmission development projects, and their type;
- The construction of transmission infrastructure can cause disruption to the local community, such as noise, dust, disruption to services/utilities and traffic etc.;
- Public perception of transmission development proposals;
- The criticality of energy supply to industry services (e.g. fisheries, tourism etc.);
- Perceived risk and associated anxiety issues related to grid development (including noise and Electromagnetic Fields); and
- Visual impact of overhead transmission lines, see also Section Landscape, Seascape and Visual Amenity.

## 6.3 Biodiversity, Flora and Fauna

### 6.3.1 Current Conditions

There are a number of Nature Conservation designations in Ireland at an International, European and National level including:

---

<sup>27</sup> Central Statistics Office. 2023 <https://data.cso.ie/table/MUM01>

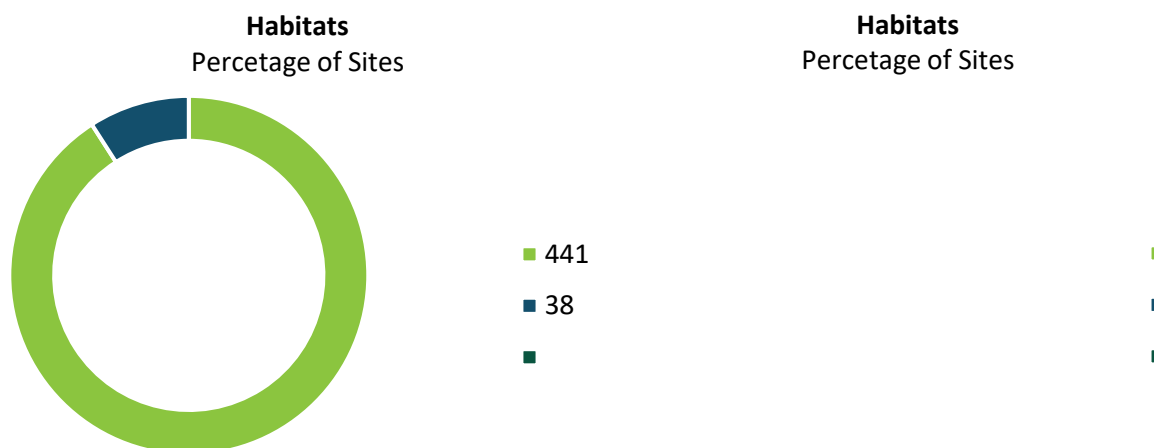
<sup>28</sup> World Bank. 2021. GDP growth (annual %) - Ireland [GDP growth \(annual %\) - Ireland | Data \(worldbank.org\)](https://data.worldbank.org/SD/SH.UV.CD)



- OSPAR Marine Protected Areas<sup>42</sup> [currently 19 sites proposed];
- Marine Protected Areas<sup>43</sup> [as these sites are not yet designated - Recommendations of the MPA Advisory Group Report (2020) along with recommendations of Fair Seas Sites<sup>44</sup>]; and
- CORINE Landcover<sup>45</sup>;

In 1997, the Habitats Directive (92/43/EEC) was transposed into Irish national law by the European Communities (Natural Habitats) Regulations, S.I. 94 of 1997 as amended. The Regulations were subsequently revised and consolidated in the European Communities (Birds and Natural Habitats) Regulations 2011, S.I. 477 of 2011. The main purpose of the Directive is to ensure the appropriate conservation of natural habitats and of wild fauna and flora. Under the directive, Member States like Ireland were required to establish an ecological network of SACs (sites which host a range of natural habitats and species listed in Annex I and II of the Directive) and SPAs as designated under the Birds Directive (2009/147/EC).

The National Parks and Wildlife Service (NPWS) monitor and assess the status of protected species (Annex I of 92/43/EEC) and habitats in Ireland (Annex I of 92/43/EEC). This considers the status of the range, area, structure and functions and prospects of each species/habitat before defining an overall status for each. A total of 59 different habitats and 61 species are listed. The overall status of Annex I habitats as of 2019 are as follows (NPWS, 2019):



The overall status of Annex II species as of 2019 is as follows:

<sup>42</sup> [OSPAR Convention to Protect the Marine Environment of the North East Atlantic, Ireland committed to establishing marine protected areas to protect biodiversity](#)

<sup>43</sup> [gov.ie - Marine Protected Areas \(www.gov.ie\)](#)

<sup>44</sup> [FS\\_full\\_report\\_pages.pdf \(fairseas.ie\)](#)

<sup>45</sup> [Land cover is the observed physical cover, as seen from the ground or through remote sensing, including for example natural or planted vegetation, water and human constructions which cover the earth's surface.](#)

**Species**  
Percentage of Sites



**Species**  
Percentage of Sites



The SEA harnesses available data sources including those from the National Parks and Wildlife Service, the EPA’s National Ecosystems Monitoring Network (NEMN), National Biodiversity Data Centre (NBDC) and CORINE land cover mapping.. EirGrid have also prepared the Ecological Guidelines for Electricity Transmission Projects: A standard approach to Ecological Impact Assessment of High Voltage Transmission Projects in 2020, to implement project-level improvements to the avoidance, reduction, and where necessary compensation of ecological impacts. These guidelines will be updated in due course, to align with unpublished internal updates to EirGrids ecology mitigation and restoration actions

An independent Appropriate Assessment process was undertaken alongside the SEA; the emerging findings of this assessment process informed the SEA following the EPA’s 2013 Integrated Biodiversity Impact Assessment - Streamlining AA, SEA and EIA Processes: Practitioner’s Manual. The existing grid network overlaps with a range of designated sites with extensive lengths of transition networks within (see Table 6-3) which can be seen in Figure 6-2 and Figure 6-3.

**Table 6-3: Length of the existing transition network within protected sites**

	SAC		SPA		NHA		pNHA	
	Distance in km	% of Line	Distance in km	% of Line	Distance in km	% of Line	Distance in km	% of Line
110kV	82,170	0.92	102,401	1.15	20,798	0.233764	96,495	1.08
220kV	36,388	1.10	31,397	0.95	1,421	0.043247	28,495	0.86
400kV	4,552	0.62	29,351	4.0	5,362	0	5,426	0.74
EirGrid Assets	12,755	0.62	10,937	0.53	0	1.357616	3,219	0.15
Total	135,865	0.90	174,086	1.16	27,581	0.18453211	133,635	0.89

EirGrid have carried out a study in relation to the electricity network and its potential to impact on habitats as part of their Evidence Based Environmental Study 4 Habitats (EirGrid , 2016a). A summary of this study is outlined in **Appendix E**.

### **Birds**

BirdWatch Ireland and the Royal Society for the Protection of Birds (RSPB) in NI provide a list of priority bird species for conservation on the island of Ireland. This list is referred to as the Birds of Conservation Concern in Ireland BoCCI List. In this list, birds which breed and/or winter in Ireland are classified into three separate lists (Red, Amber and Green), based on the conservation status of the bird and hence conservation priority. Birds on the Red List are those of highest conservation concern, the Amber List are of medium conservation concern and the Green List birds are not considered threatened<sup>46</sup>. The number and breakdown of bird species on the Red and Amber List is shown in Table 6-4.

**Table 6-4: Red and Amber Bird Types**

Bird Types	During Previous Plan		Current	
	Red List	Amber List	Red List	Amber List
Breeding	21	60	27	43
Passage	2	5	3	8
Wintering	9	15	13	11
Breeding and Wintering	5	11	11	18

EirGrid have carried out a study in relation to the electricity network and its potential to impact on birds as part of their Evidence Based Environmental Study 5 Birds (EirGrid , 2016b). A summary of this study is outlined in **Appendix E**.

The Draft Grid IP therefore considers measures to avoid or reduce impacts to birds – particularly those listed in the amber and red lists.

### **Aquatic & Marine Biodiversity**

Water quality is an important aspect which was considered by the Draft Grid IP, as discussed later in Section 6.6 too and this has a big influence on aquatic biodiversity. Aquatic biodiversity encompasses freshwater ecosystems including lakes, ponds, reservoirs, rivers, streams, groundwater, wetlands, coastal and marine. Aquatic species (marine and freshwater) are dependent on good quality water and suitable flows. Construction run-off can impact water quality, modification of watercourses can reduce water flows and, in turn, reduce a watercourse’s potential to support fish life and trophic structures. Additionally, vessel movement patterns can influence behavioural ecology particularly with regard to large species.

<sup>46</sup> Gilbert G, Stanbury A and Lewis L (2021), “Birds of Conservation Concern in Ireland 2020 –2026”. Irish Birds 9: 523–544 The categorisation of species as breeding, wintering etc. ref

The NPWS has identified 44 different water dependent habitat types and 22 water dependent species under the habitats directive in Ireland. Of these, the freshwater pearl mussel (*Margaritifera margaritifera*) is considered to be a highly sensitive surface water dependent species in Ireland, and coastal lagoons a highly sensitive water dependent habitat (EPA, 2016a). The Overall Status of *M. margaritifera* is Bad and deteriorating, unchanged since the 2013 assessment (NPWS 2019). Of the water dependent habitats, 11% are deemed to be at Favourable Conservation Status, while 50% of water dependent species are at Favourable Conservation Status. Other species include salmon (*Salmo salar*) and harbour porpoise (*Phocoena phocoena*).

62% of cartilaginous sharks (sharks, skates, rays, chimearas) are of conservation concern on the Irish red list (Clarke et al., 2016). 78% of marine and coastal habitats are in unfavourable condition (NPWS, 2019). There is currently no up-to-date database of Irish marine non-indigenous and invasive species. Only 8% of Ireland's marine waters have been designated, yet the EU Biodiversity 2030 strategy up-to-date database of Irish marine non-indigenous and invasive species. Coastal waters are in a better condition, with 36 (80%) of those monitored being of high or good status (EPA, 2019a). The Marine Protected Areas Bill was agreed by government in December 2022. Two new marine SACs, and Ireland's first offshore candidate SPA were designated in 2023.

EirGrid carried out a study in relation to the electricity network and its potential to impact on the water network as part of their Evidence Based Environmental Study 6 Water Quality and Aquatic Ecology (EirGrid, 2016c). A summary of this study is outlined in **Appendix E**.

The Draft Grid IP should therefore consider the following in addition to water quality and surface water hydrology:

- Spawning and nursery areas for protected aquatic species;
- Passage of migratory or mobility of protected aquatic species;
- Ecosystem function and condition of habitats which support protected aquatic species;
- Sediment transport and coastal erosion;
- Interactions with seabirds and marine mammals; and
- Mineral and aggregate resources.



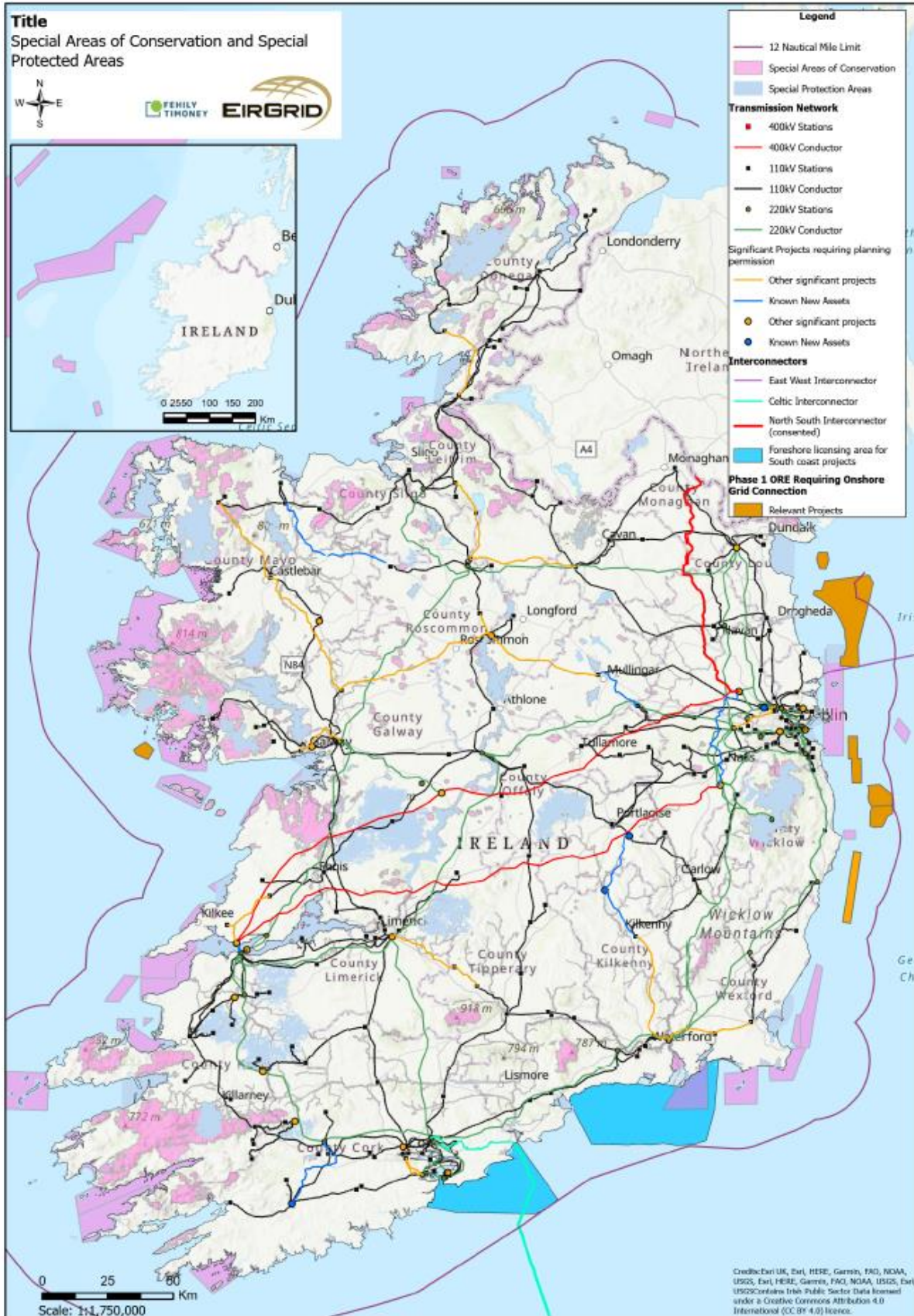
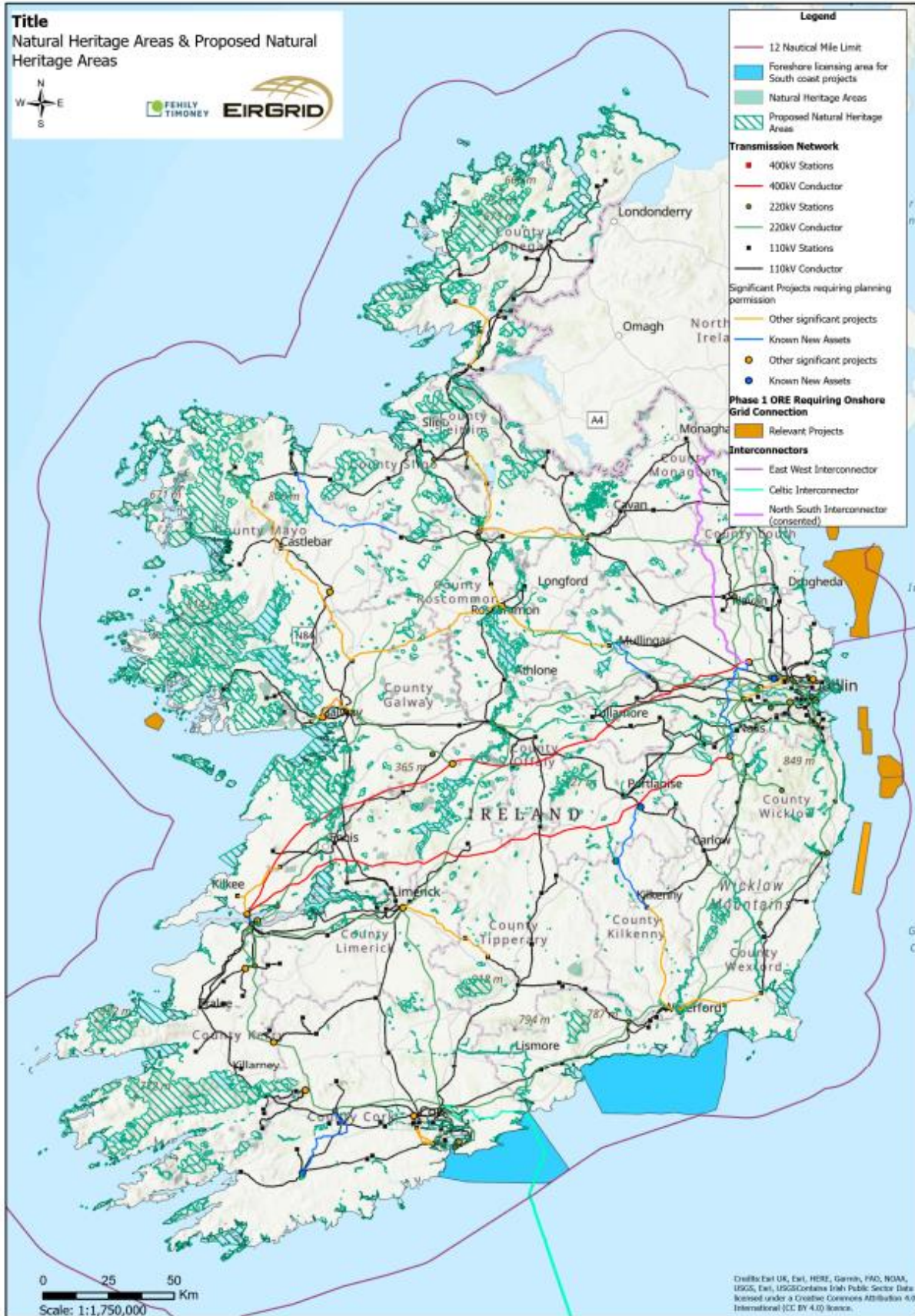


Figure 6-2: Special Areas of Conservation and Special Protection Areas in Ireland (Source: NPWS) overlaid with the existing grid



### Figure 6-3: Natural Heritage Areas and proposed Natural Heritage Areas in Ireland (Source: NPWS) overlaid with the existing grid

#### 6.3.2 Future Trends (Evolution of the Baseline)

Increasing land-use change such as urbanisation, afforestation and its associated management and changing agricultural practices are likely to continue to pose risks to the quality and distribution of aquatic and terrestrial habitats and species, both within and outside protected sites. However, the continued implementation of measures required in achieving the objectives of the Water Framework Directive (WFD) and the requirements of the Habitats Directive are likely to benefit protected sites and the wider aquatic environment in the future.

The conservation objectives developed by the NPWS for European sites, as well as other management plans for declining species (e.g., Threat Response Plans) will contribute to the critical changes needed to reverse biodiversity declines nationally and internationally.

**Key Action: Nature and Wild Places (EPA, 2016)**

Continue to protect pristine and wild places which are key to biodiversity and provide sustainable tourism opportunities.

Future trends will be influenced by changes/additions to existing designated (SAC, SPAs and NHAs). Several pNHAs may be reviewed and upgraded to NHAs and, similarly, sites listed as tentative on the UNESCO Heritage list may be upgraded to designated heritage sites.

The Marine Protected Areas Bill was agreed by government in December 2022. Two new marine SACs, and Ireland's first offshore candidate SPA were designated in 2023. Institutions like the Marine and Freshwater research centre continue to explore novel areas, they recently found that Marine habitats created by shellfish are hotspots of biodiversity of high conservation importance. There are currently 29 established and 18 potential invasive species threats. Species which are listed as potential threats may become established threats in the near future. The EPA's report on alien invasive species and the continuing development of the National Biodiversity Data Centre National Invasive Species Database will aid in the documentation of the distribution of invasive species in Ireland. These reports and datasets will go towards the implementation of the recent European legislation on halting the spread of invasive species (Regulation 1143/2014, entered into force on 1 January 2015).

#### 6.3.3 Key Interactions with the Plan

The projects proposed in the Draft Grid IP have the potential to have the following impacts on the baseline environment:

- The potential for negative effects to the marine environment - particularly with respect to noise impacts<sup>47</sup> - to ranging patterns of mobile species and benthic communities around sea cabling;

<sup>47</sup> Environmental Protection Agency. 2013. Mapping the spatio-temporal distribution of underwater noise in Irish Waters STIVE - available at STRIVE-121-Mapping-the-spatio-temporal-distribution-of-underwater-noise-in-Irish-Waters.pdf (epa.ie)

- The potential for negative effects on non-designated biodiversity features e.g. important habitats and species outside designated sites - particularly with regard to fragmentation, barriers to movement and displacement;
- The potential for negative effects on protected areas: National and European sites (e.g. SAC, SPAs, RAMSAR), National sites (e.g. NHAs) and other Natural Heritage Sites and Conservation Interest Sites e.g. refuge for fauna or flora, wildfowl reserves;
- The requirement for ecological protection can pose restrictions to existing/future transmission development;
- The potential to spread invasive species; and
- The increasing baselining of No Net Loss, where possible Net gain, but in general biodiversity enhancement, as a result of EirGrids commitment to establish Nature Inclusive Design as a minimum requirement on every scope of intrusive grid projects<sup>48</sup>.

## 6.1 Landscape, Seascape and Visual Amenity

### 6.1.1 Current Conditions

There are six areas designated and recognised as nationally important landscapes within Ireland. All of these are National Parks. Ireland has no Areas of Outstanding Natural Beauty; however there are AONB within NI such as the Ring of Guillion AONB which will be considered as part of the Transboundary effects.

There is a National Landscape Strategy for Ireland 2015-2025, published by the Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHRRG) in 2015. There is currently no approved national level landscape mapping for Ireland. The Landscape Institute published a draft landscape database of the UK and Ireland in March 2023 which provides a centralized repository of landscape character data for the whole island of Ireland. However, the data is not harmonized and consists of links to landscape character data from the various Local Authorities throughout Ireland.

The Planning and Development Act 2000 (as amended) defines the term ‘landscape’ which will be used in the SEA. In addition, many Local Authorities have incorporated landscape designation into their County Development Plans in the form of protected views, prospects, landscape conservation areas and scenic routes etc. Similar to LCAs, there is no national standardised approach for designation of protected views, prospects, scenic routes etc. for landscape features/sites.

The Marine Institute published a Regional Seascape Character Assessment for Ireland in 2020. This identified approximately 13 different Irish seascape character types, within 17 regional seascape character areas. This is reflected in the National Marine Planning Framework (NMPF) which includes the following Landscape & Seascape Policy covering the 17 seascape character types:

#### Seascape and Landscape Policy 1

Proposals should demonstrate how the likely significant impacts of a development on the seascape and landscape of an area have been considered. Proposals will only be supported if they demonstrate that they, in order of preference:

<sup>48</sup>[https://www.eirgridgroup.com/site-files/library/EirGrid/211603-EirGrid-Nature-Inclusive-Design-Pilots\\_Published\\_Final.pdf](https://www.eirgridgroup.com/site-files/library/EirGrid/211603-EirGrid-Nature-Inclusive-Design-Pilots_Published_Final.pdf)

- a) avoid,
- b) minimise, or
- c) mitigate
- d) significant adverse impacts on the seascape and landscape of the area.
- e) If it is not possible to mitigate significant adverse impacts, proposals must set out the reasons for proceeding.

This policy should be included as part of statutory environmental assessments.

The NMPF defines seascape as “*landscapes with views of the coast or seas, and coastal areas and the adjacent marine environment with cultural, historical and archaeological links with each other. Seascape can be broken down into its constituent parts of visual resource and marine character. Visual resource refers to views of the coast and sea from land, views from the sea to land, and views from sea to sea. Character is the perception of an area, the combination of characteristics at the surface, within the water column and on the seabed*”.

EirGrid have produced EBES 10: Landscape & Visual of direct relevance to Landscape and Visual Amenity. These assessments will be updated in 2024 as per commitments in the Draft Grid IP. The existing landscape and seascape baseline is not expected to change significantly in the immediate future; however, the push for wind energy developments and accompanying infrastructure both onshore and offshore could shift the baseline at a local context.

The Environmental Mitigation Measures EMM2 from the previous plan reads *Preparation of Strategic Environmental Constraints Mapping*. As a result of this measures a number of landscape maps have been prepared and can be seen in Appendix E. National visual sensitivity mapping, based on CORINE land cover characteristics, indicated conditions where visual vulnerability was considered high. The majority of visual sensitivities occur along the western half of the country, particularly along the western seaboard. The second type of mapping produced was topographical mapping. The topography maps identified all areas which are greater than 200 m in height. Thirdly, landscape constraints and opportunities mapping were produced. These maps indicate at a high level the landscape areas that are potentially most sensitive/least sensitive to the construction of electricity transmission infrastructure. In areas where there are high concentrations of sensitivities it is deemed that development can potentially conflict with these sensitivities (EirGrid , 2012b).

#### 6.1.2 Future Trends (Evolution of the Baseline)

The existing landscape and seascape is not expected to change significantly in the immediate future except with respect to renewable energy development which is being progressed throughout the country and marine area. In May 2015 the DAHRRG published the National Landscape Strategy for Ireland 2015-2025. This is in line with Ireland’s ratification of the European Landscape Convention (ELC) (2000). The National Landscape Strategy will be used to aid compliance with the ELC and as part of this a National Landscape Character Assessment is currently being developed. It is a high- level policy framework aimed at achieving a balance between the protection, management and planning of the landscape by way of supporting actions (DAHRRG, 2016).

The Planning and Development Act 2000 provides for Landscape Conservation areas; to support this, complementary legislation and codes will be examined to see whether gaps need to be addressed that could inform legislation specific to landscape protection in the near future.

Considering the commitment in the draft Offshore Renewable Energy Development Plan (OREDPA) II and the March 2023 Government Policy Statement on the Framework for Phase Two Offshore Wind confirming EirGrid's commitment to develop offshore substations to support the deployment of offshore wind energy; it is likely that the seascape will be altered not just by future offshore windfarm development but also by the accompanying infrastructure required to support the scale of offshore wind energy required.

### 6.1.3 Key Interactions with the Plan

The projects proposed in the Grid IP have the potential to have the following impacts on the baseline environment:

- Negative effects of overhead transmission infrastructure on areas of designated landscape and seascape quality and scenic views etc.;
- Grid development options can be constrained by the need to protect the landscape and seascape character and features;
- Sensitivity of the landscape and seascape to change from transmission infrastructure; and
- Visual intrusion on receptors from transmission infrastructure both onshore and offshore.

## 6.2 Cultural Heritage - Archaeology & Architectural

### 6.2.1 Existing Conditions

Archaeological sites are legally protected<sup>49</sup>. One of the primary sources of information for known archaeological features is the Record of Monuments and Places (RMPs)<sup>50</sup>. The RMP is an inventory of sites and areas of archaeological significance. There are 150,800 recorded monuments on the RMP and over 138,800 of these relate to archaeological monuments (NMS, 2020).

---

<sup>49</sup> National Monuments Acts 1930 (as amended), the National Cultural Institutions Act 1997 (as amended) and the Planning and Development Act 2000 (as amended) & Planning and Development (Amendment) Act 2021

<sup>50</sup> Data available at <https://data.gov.ie/dataset/national-monuments-service-archaeological-survey-of-ireland>

Local authorities compile and maintain the Record of Protected Structures<sup>51</sup>, these RPSs are listed in the County Development Plans, but are not available in digital map format for some County Council's. Consultation with the relevant Local Authorities will take place during this phase of the SEA process to obtain further details of these RPSs as required to undertake the assessment. It is acknowledged that the register of protected structures documented in CDPs may not represent all Ministerial recommended sites/structures which are included in the National Inventory of Architectural Heritage (NIAH)<sup>52</sup>. The purpose of the NIAH is to identify, record, and evaluate the post-1700 heritage of Ireland and there are over 50,000 listings on the NIAH in Ireland (DAHRRG, 2022). These provisions include underwater archaeological heritage<sup>53</sup>. The Wreck Inventory of Ireland Database (WIID) holds records of over 18,000 known and potential wreck sites in Irish waters<sup>54</sup>; this is managed by the underwater archaeology unit.

The DCHG has developed Heritage Ireland 2030<sup>55</sup> plan, published in November 2020, serving the purpose of informing decision-making process. Architectural Conservation Areas<sup>56</sup> (ACAs) are designated for their special characteristics and distinctive features. ACAs in Ireland are detailed in the various County and Local Area Development Plans (some of which are pending designation). Consultation with the relevant Local Authorities is currently being undertaken for the SEA process to obtain further details of these ACAs and marine archaeological features as required to undertake the SEA.

---

<sup>51</sup> under Section 51 of the Planning & Development Act 2000 (as amended).

<sup>52</sup> Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999 (as amended) Data available at <https://data.gov.ie/dataset/national-inventory-of-architectural-heritage-niah-national-dataset>

<sup>53</sup> Department of Housing, Local Government and Heritage. 2015. Advice to the Public on Ireland's Underwater Archaeological Heritage

<sup>54</sup><https://data.gov.ie/dataset/national-monuments-service-wreck-inventory-of-ireland#:~:text=The%20Wreck%20Inventory%20of%20Ireland,found%20within%20Ireland's%20inland%20waterways.>

<sup>55</sup> Available at <https://assets.gov.ie/216635/dc419679-e615-415b-a707-118ce4411501.pdf>

<sup>56</sup> Designated under Section 81 of the Planning & Development Act 2000 (as amended)



Figure 6-4 Archaeological heritage sites



There are two registered<sup>57</sup> UNESCO World Heritage Sites in Ireland:

- Brú na Bóinne - Archaeological Ensemble of the Bend of the Boyne in Co. Meath; and
- Skellig Michael off the coast of Co. Kerry.

Moreover, EirGrid have produced a number of EBES of direct and indirect relevance to Cultural Heritage - Archaeology and Architectural (EBES 2: Cultural Heritage, EBES 9: Settlement & Land Use, EBES 10: Landscape & Visual). EBES No. 2 has informed the guidance document: Cultural Heritage Guidelines for Electricity Transmission Projects which is utilised in the development of EirGrid projects.

### 6.2.2 Future Trends (Evolution of the Baseline)

The archaeological, architectural and cultural heritage within Ireland is a finite resource and protection of this resource is a continuous requirement set down in national legislation. Therefore, the existing cultural heritage environment is not expected to change significantly in the immediate future. There may be new features of archaeology and cultural heritage (i.e. RMP, RPS and NIAH) designated/undesigned as part of ongoing revision to these datasets. There are also a number of sites on the UNESCO tentative list that may be designated in the near future.

### 6.2.3 Key Interactions with the Plan

The projects proposed in the Grid IP have the potential to have the following impacts on the baseline environment:

- The potential impact of the construction of transmission infrastructure on archaeological and architectural heritage, including risk of encountering UXO in the marine environment;
- The potential impact on the setting of archaeological and architectural heritage due to the permanent presence of transmission infrastructure; and
- Grid development options can be constrained by the need to protect the character of areas of existing archaeological and architectural resources.

## 6.3 Geology and Soils

### 6.3.1 Current Conditions

#### **Geology**

The topography of Ireland varies greatly, comprising of a low-lying central limestone plain that is surrounded by coastal mountains. The mountains to the north-west (Galway, Mayo and Donegal) and east (Wicklow Mountains) are comprised of granite. The north-east of Ireland is covered in a basalt plateau and to the south, the mountains run in an east-west direction and is largely composed of a red sandstone rock, see Figure 6-5.

---

<sup>57</sup> With 4 sites suggested on the tentative list of proposed sites.

As part of the Irish Geological Heritage (IGH) Programme, a partnership between GSI and the NPWS, the GSI have identified important geological and geomorphological sites which could be conserved as NHAs. Until designation is confirmed, these sites are classified as Irish Geological Heritage Sites (IGHS). There are over 900 IGHS identified around Ireland.

## **Soils**

Subsoils in Ireland are made up of glacial and post-glacial sediments. Glacial till makes up the majority of subsoil, while other subsoils found in Ireland are sand and gravel, lake deposits, alluvium and peat.

Soil in Ireland is regarded as generally good quality in terms of its physical, chemical and biological indicators. However, soil is increasingly under pressure from population growth and land use changes such as agriculture, erosion, afforestation and overgrazing. Agricultural activity has had a huge impact on soil in Ireland, where the excessive use of fertilizer (i.e. phosphorus) has adverse impacts on water quality. Soil contamination can also occur from leakages, spillages from industry, old mining sites and landfills. Diffuse pollution will usually arise from primary activities such as agriculture, forestry and horticulture. Marine sediments are primarily rock, coarse sediment and mixed sediment; where mud sediments are present these areas tend to have higher levels of biodiversity (which will be regarded in the biodiversity section of the SEA).

There is no legislation solely directed to soil protection in Ireland. The EU soil strategy for 2030 sets out a framework and concrete measures to protect and restore soils, and ensure that they are used sustainably. A new Soil Monitoring Law will put the EU on a pathway to healthy soils by 2050.

In Ireland, peatland areas comprise 20.6% of our land area (An Taisce, 2022). Peatlands include blanket bogs, raised bogs, fens and wet and dry heath. The main threats to peatland areas in Ireland are peat extraction, habitat changes, invasive alien species, nutrient pollution and climate change (Teagasc, 2016). The loss and degradation of peatlands can affect biodiversity, flooding and climate change (carbon sinks).

EirGrid have undertaken a specific EBES on soils and geology (EBES 7: Soils & Geology), summarized in Appendix E.

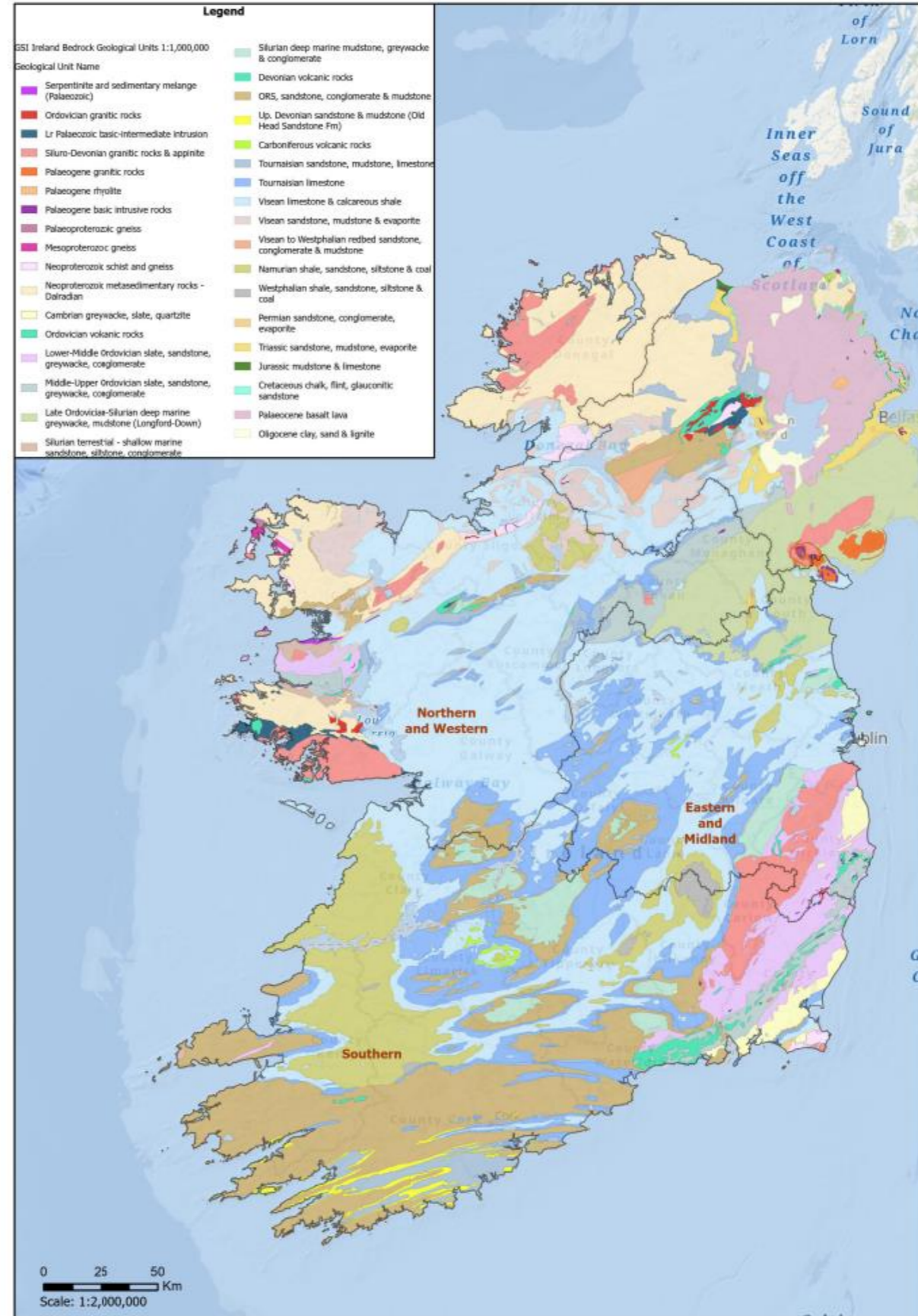
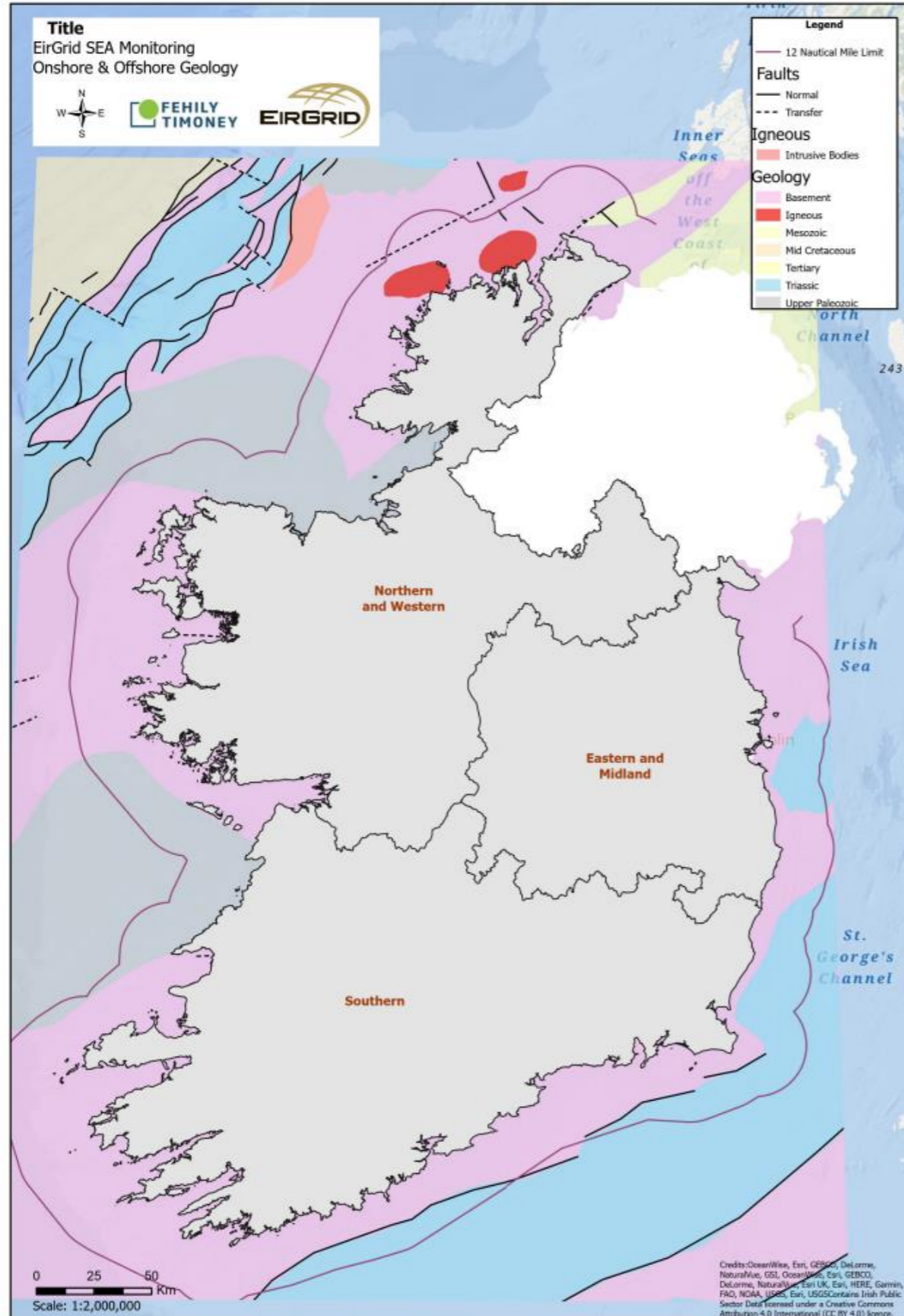


Figure 6-5: Geology of Ireland (Source: GSI)

### 6.3.2 Future Trends (Evolution of the Baseline)

#### **Geology**

The IGH sites referred to above are in the process of being reviewed by the NPWS to determine which sites shall be designated as NHAs and therefore afforded statutory protection.

#### **Soil**

In January 2014, the Seventh Environment Action Programme came into force with the objective of recognising that soil loss and degradation is a major challenge across Europe. Loss of soil quality has serious implications for ecosystems, climate, the economy and human health. By 2020, the Programme aims to ensure land is managed in a sustainably manner across the EU by reducing soil erosion, increasing soil organic matter and remediating contaminated sites.

The EPA's National Soil Database (NSDB) produced a national baseline database of soil geochemistry including spatial maps of major nutrients, and essential trace elements. This study provides Ireland with a good baseline of soil geochemical properties should any future soil protection policies be developed.

### 6.3.3 Key Interactions with the Plan

The projects proposed in the Draft Grid IP have the potential to have the following impacts on the baseline environment:

The key issues in relation to Geology and Soils are as follows:

- Potential for impacts on geological features (such as karst) or geological designations;
- Potential for impacts on soil resources and offshore sediment transport;
- Potential impacts to soils (land) vulnerable to erosion; and
- Potential for unearthing contaminated material.

## **6.4 Land Use**

### 6.4.1 Current Conditions

Information on land use in Ireland can be obtained from the CORINE Land Cover (CLC) inventory and Ireland's Marine Atlas<sup>58</sup>. These data sources have archives which document land use change as well as existing land use.

---

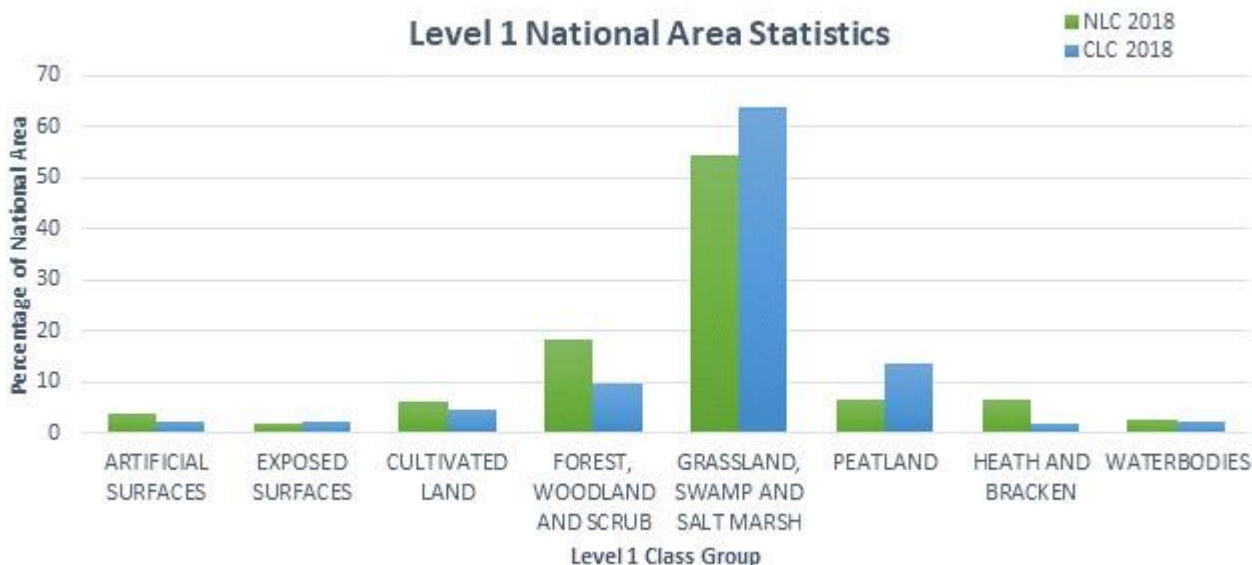
<sup>58</sup> Available at <https://atlas.marine.ie/#?c=53.9108;-15.9082;6>

Planning and land use policy over twenty years was reviewed as part of EirGrid EBES No. 9. This study demonstrated that Development Plans in the 1990s displayed a varied awareness of the importance of transmission infrastructure. However, by the mid-2000s, plans referred to the grid and renewable energies, as well as to protection of sensitive landscapes and residential amenity. Since the mid-2000s, ESB clearance distances have been articulated in Development Plans and some Development Plans<sup>59</sup> now typically refer to specific transmission projects within their functional areas<sup>60</sup>. EirGrid have produced a number of publications of relevance to land use:

- EBES 9: Settlement & Land Use - this study examined the effects of the construction and presence of high voltage transmission infrastructure on patterns of settlement and land use in Ireland;
- Your Grid, Your Views, Your Tomorrow. Responding to Agriculture Concerns (2015); and
- Your Grid, Your Views, Your Tomorrow. Responding to Equine Concerns (2015).

With the significant change in the detail of the land cover data, now available in NLC 2018, our understanding of national statistics in land cover are also changing. The Final Report for NLC 2018 provides an initial assessment of the national statistics for land cover based on this new data, below are a summary of these findings.

When comparing the NLC 2018 and CORINE 2018 data at Level 1, as shown in Figure 6-6, it highlights that Grassland and Peatlands were overestimated in CLC 2018, while Forest Areas, Cultivated Land, Heath and Bracken, and Artificial Surfaces were underestimated.



**Figure 6-6 Comparison of percentage national area at Level 1 class groupings for NLC 2018 and CORINE 2018.**

<sup>59</sup> Such as the Cork County Development Plan (2022-2028) Objective ET 13-23: Celtic Interconnector

<sup>60</sup> This is the result of the EirGrid Planning and Environmental Unit engaging on CDP consultations

A lot of the changes identified are as a result of the differences in the resolution of the data. CORINE 2018 has a low resolution of 25-hectares meaning that many smaller land cover classes are generalised into the dominant classes. Small features like hedgerows, ponds, houses etc. are often merged into dominant classes like grasslands in Ireland. In NLC 2018 the data resolution is much more detailed meaning these small features are mapped, this increases the representation of these classes and decreases the percentage area of dominant land cover classes. In summary NLC 2018 is more representative of all land cover classes in Ireland.

Although these dominant classes are lower in area than previously calculated, they are still the most common classes in Ireland. Chart 4 provides an overview of the percentage of national area that each NLC 2018 Level 2 class represents, please note these are draft figures at this stage.

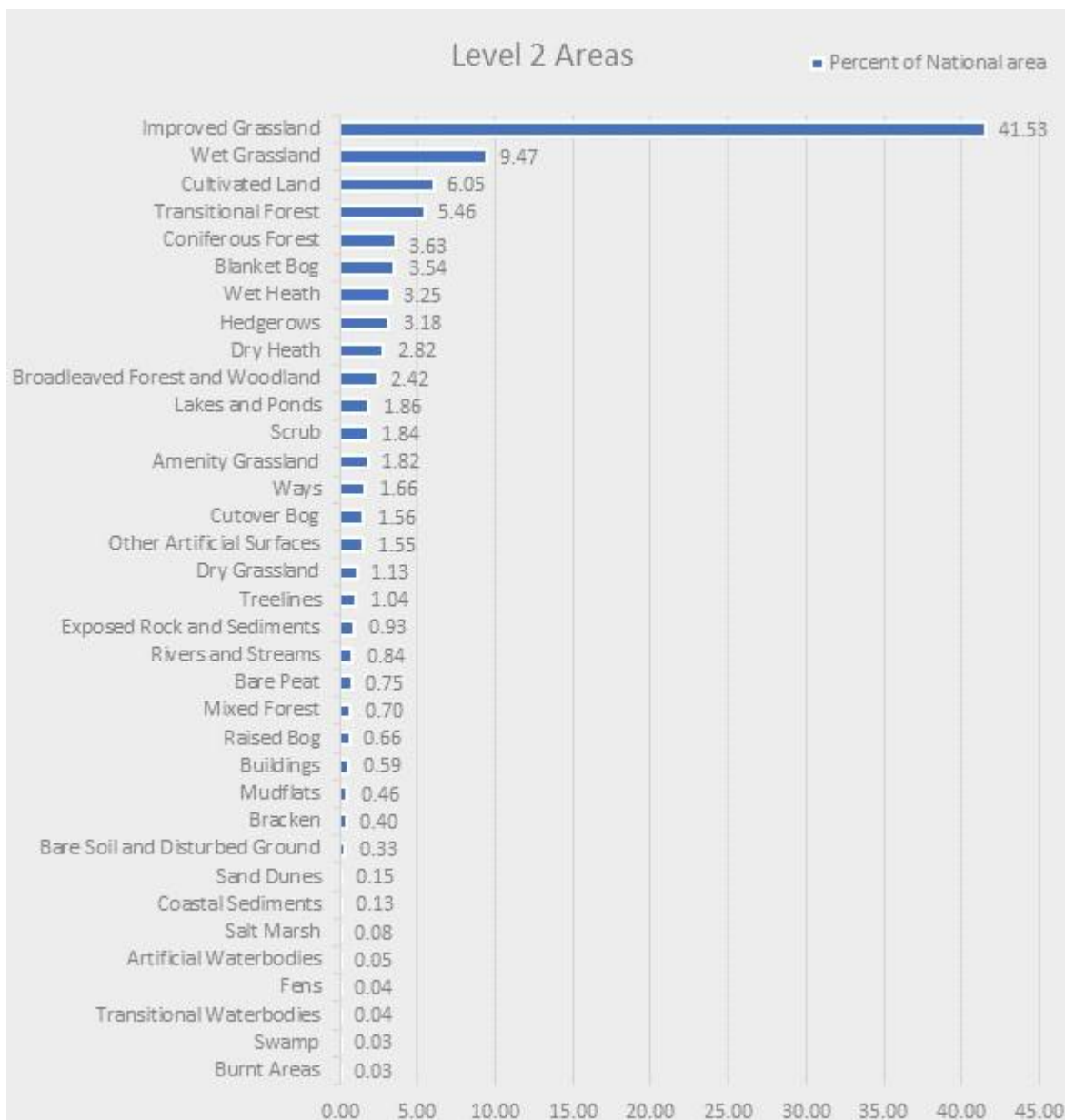


Figure 6-7 Overview of the percentage of national area that each NLC 2018 Level 2 class represents.

Figure 6-7 shows that by a large margin, Improved Grassland is the single most dominant land cover type in Ireland. It covers 2.93 million hectares or 41.53% of the total national area. It is the only class that exceeds 10% of the national area with the second most widespread class being Wet Grassland at 9.47%. These two grassland classes together account for over 50% of the national area.

Cultivated Land is the third most dominant land cover type in Ireland 6.05%, the map also shows it has a strong regional concentration in the East and Southeast. Transitional and Coniferous forest lands, both associated with plantation forestry account for 5.46% and 3.63% of the national area respectively. Blanket Bog and Wet Heath occupy 3.54% and 3.25% of the national area respectively.

The first national scale mapping of hedgerows in Ireland show that they cover 224,787 ha or 3.18% of the total national area.

All other classes are below 3% of the national area with full national-scale mapping achieved for the first time for many other land cover classes including Dry Heath (2.82%), Broadleaved Forest and Woodland (2.42%), Scrub (1.84%), Amenity Grassland (1.82%), Cutover Bog (1.56%) and Raised Bog (0.66%).

EirGrid EBES No. 9 demonstrated that Development Plans in the 1990s displayed a varied awareness of the importance of transmission infrastructure. However, by the mid-2000s, plans referred to the grid and renewable energies, as well as to protection of sensitive landscapes and residential amenity. Since the mid-2000s, ESB clearance distances have been articulated in Development Plans and some Development Plans refer to specific transmission projects within their functional areas. EirGrid have carried out a study in relation to the electricity network and its potential to impact on land use as part of their Evidence Based Environmental Study 9 Settlement and Land Use (EirGrid , 2016f).

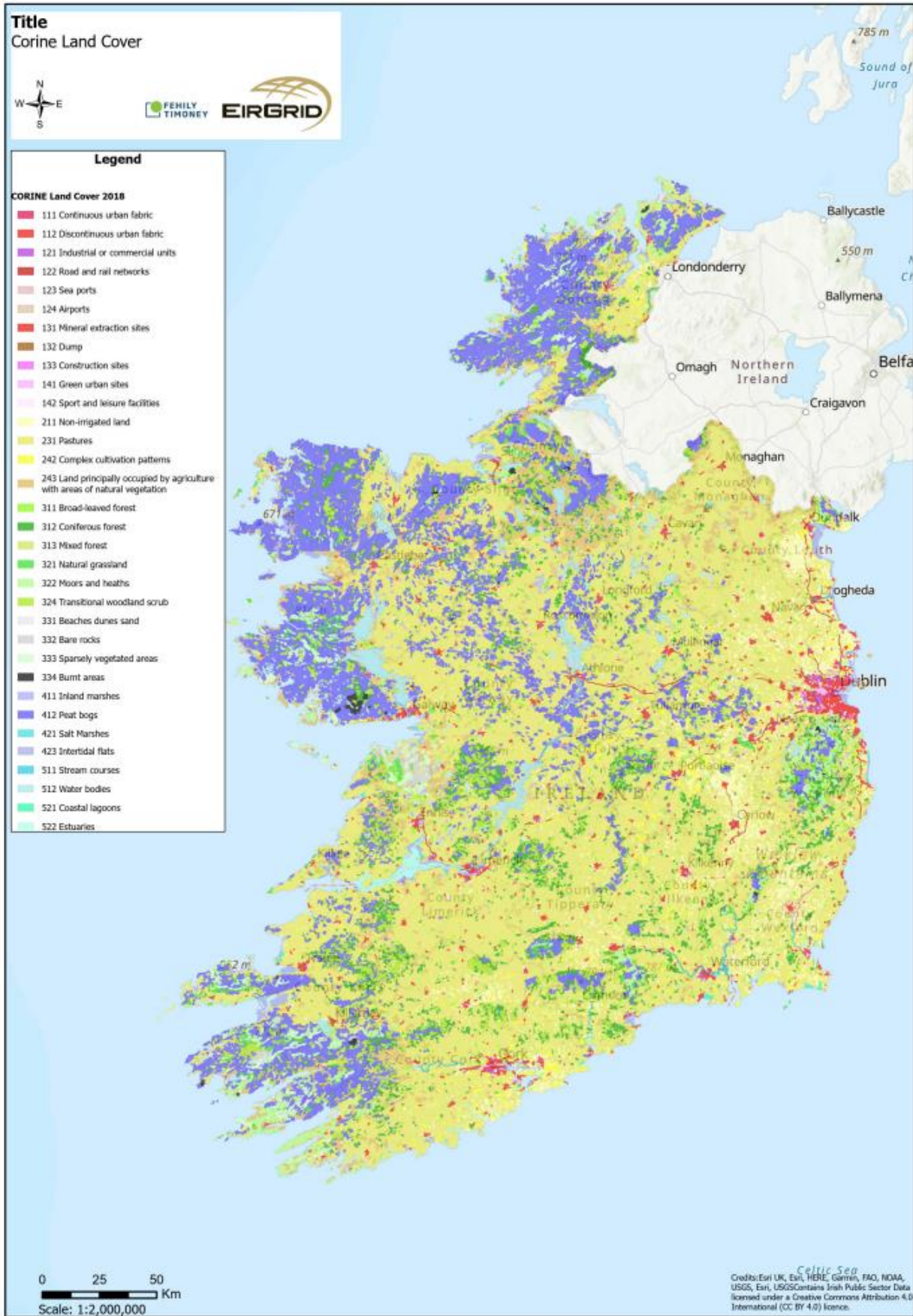
#### 6.4.2 Future Trends (Evolution of the Baseline)

The largest land use activity in Ireland is agriculture. The future of Irish agriculture depends on initiatives such as Food Harvest 2020 (which aims to increase Irish agri- food export by 2020), Bord Bia's Origin Green Initiative (which enables farmers and producers to set targets aimed at protecting the environment) and the Sustainable Healthy Agri-food Research Plan (SHARP) to make the best use of research and new technology in agriculture.

The Irish Government has made a commitment to increase the forest area to 17% of the total land area by 2030. The latest CORINE data cover data identifies that this target has already been met – however, it is likely that this target will now be revised upwards with higher diversity and complexity targets associated with the forestry cover.

The NPWS have prepared a *National Peatland Strategy*, a *Draft Raised Bog SAC Management Plan*, and a *Raised Bog NHAs Review*, to protect and manage significant peatlands in Ireland, which are designated under EU and National legislation. Additionally, the DAHRRG will be preparing SAC Management Plans for Blanket Bogs.

The National Just Transition Fund is a fund to support the transition of land uses to low carbon alternatives, additionally in 2023 each local authority will be preparing Local Area Climate Action Plans which will support the just transition process and aims to facilitate sustainable future development options related to energy need. Therefore, it is likely that the future trends related to land use – and land use change – are likely to be favourable in terms of environmental impacts due to the collaborative thinking approach being taken through these initiatives.





## Figure 6-8: Land Use of Ireland (Source: EPA-CORINE November 2022)

### 6.4.3 Key Interactions with the Plan

The key issues in relation to land use are as follows:

- Potential constraints on sea fisheries, both during construction and operation of infrastructure projects associated with the Draft IP; and
- Potential constraints on other sections such as agricultural, forestry and fisheries; primarily related to construction and operation of infrastructure projects associated with the Draft IP.

## 6.5 Air Quality and Noise

### 6.5.1 Existing Conditions

The air quality in Ireland is of generally good quality. In the most recent EPA Air Quality Report (2021), the EU value limits were not exceeded in terms of fine particulate matter (PM<sub>2.5</sub>) and Nitrox Oxide (NO<sub>2</sub>) levels, however these pollutants exceed the World Health Organization (WHO) (2021) guidelines<sup>61</sup>.

These air quality monitoring results show that fine particulate matter mainly from burning solid fuel in homes, and nitrogen dioxide (NO<sub>2</sub>) remain the main threat to good air quality<sup>62</sup>.

The Clean Air Strategy for Ireland, published 26 April 2023 provides a high level strategic policy framework to identify and promote integrated measures across government to reduce air pollution and promote cleaner air while delivering on wider national objectives<sup>63</sup>.

Under the Clean Air for Europe Directive [Directive 2008/50/EC], EU member states must designate "Zones" for the purpose of managing air quality. There are four such zones in Ireland as follows:

- Air Zone A: Dublin conurbation;
- Air Zone B: Cork conurbation;
- Air Zone C: Other cities and large towns; and
- Air Zone D: Rural Ireland.

### Noise

The EEA<sup>64</sup> states that "environmental noise can be defined as unwanted or harmful outdoor sound".

---

<sup>61</sup> World Health Organization. 2021. WHO global air quality guidelines: particulate matter (PM<sub>2.5</sub> and PM<sub>10</sub>), ozone, nitrogen dioxide, sulphur dioxide and carbon monoxide. World Health Organization. <https://apps.who.int/iris/handle/10665/345329>. License: CC BY-NC-SA 3.0 IGO

<sup>62</sup> Environmental Protection Agency. 2022. Air Quality in Ireland Report 2021. [https://www.epa.ie/publications/monitoring--assessment/air/EPA-Air\\_Quality\\_in-Ireland-Report\\_2021\\_-\\_interactive-pdf.pdf](https://www.epa.ie/publications/monitoring--assessment/air/EPA-Air_Quality_in-Ireland-Report_2021_-_interactive-pdf.pdf)

<sup>63</sup> Government of Ireland Publication accessed at <https://www.gov.ie/en/publication/927e0-clean-air-strategy/#:~:text=The%20Clean%20Air%20Strategy%20provides,delivering%20on%20wider%20national%20objectives>.

The EU Noise Directive (2002/49/EC) relates to the assessment and management of environmental noise<sup>65</sup>. This Directive called for the development of strategic noise maps and action plans for major roads, railways, airports and cities. To date these have been produced for the road network only.

EirGrid have produced one EBES of relevance to Noise (EBES 8: Noise); which found that the results from the 110 kV and 220 kV overhead line surveys present strong evidence that lines of these voltages are not likely to result in significant noise impacts in their vicinity. The noise study on the 400 kV overhead line provided evidence which showed that these lines can produce localised significant 'corona'<sup>66</sup> noise effects under certain conditions (especially at night under humid or wet conditions). This evidence was consistent with other literature on the subject was reviewed in EBES 8: Noise. There is evidence of spatio-temporal effects of noise within the marine environment<sup>67</sup> which will need to be considered within the SEA. A, in addition to impacts of noise on marine mammals under Biodiversity.

### 6.5.2 Future Trends (Evolution of the Baseline)

Although air quality in Ireland is good, there is potential for emerging pollutants to rise above limits/targets in the future. Key contributors to emissions in Ireland are the transport and agriculture sectors. Agriculture emissions are projected to grow on an annual basis out to 2020 which reflects the impact of Food Harvest 2020 and removal of the milk quota. In total, agriculture emissions are projected to increase by 12% by 2020 at current levels. Transport emissions are also projected to show strong growth over the period to 2020 with a 12-22% increase on current levels depending on the level of policy implementation (EPA, 2013).

Future noise trends are difficult to predict. The European Communities (Environmental Noise) Regulations 2018 may be revised in future to enforce a stricter level of noise management, and further strategic noise maps and plans are to be developed.

### 6.5.3 Key Interactions with the Plan

The projects proposed in the Grid IP have the potential to have the following impacts on the baseline environment:

- Transmission developments, particularly during the construction phase, may have a temporary negative impact on air quality and create noise pollution; and
- High voltage transmission infrastructure has associated noise outputs - note there is no above ground noise associated with underground cabling.

---

<sup>64</sup> EEA. 2022. Noise Data Briefing <https://www.eea.europa.eu/soer/2015/europe/noise#:~:text=Environmental%20noise%20can%20be%20defined,of%20exposed%20humans%20and%20wildlife>.

<sup>65</sup> This was transposed into Irish national legislation via the Environmental Noise Regulations (S. I. No. 140 of 2006).

<sup>66</sup> Audible noise associated from high voltage transmission lines – generally heard as crackling and hissing

<sup>67</sup> Environmental Protection Agency. 2013. Mapping the spatio-temporal distribution of underwater noise in Irish Waters STIVE - available at [STRIVE-121-Mapping-the-spatio-temporal-distribution-of-underwater-noise-in-Irish-Waters.pdf \(epa.ie\)](#)

## 6.6 Water

### 6.6.1 Current Conditions

The EU Water Framework Directive (2000/60/EC) establishes a framework for the protection of both surface and groundwater. Transposing legislation outlines the water protection and water management measures required in Ireland to maintain high status of waters where it exists and to prevent any deterioration in existing water status. The second cycle of the River Basin Management Plan (RBMP) ran from 2018-2021, where separate plans were devised for all eight River Basin Districts (RBDs) with the objective of achieving at least 'good' status for all waters by 2027. The next RBMP 2022-2027 is currently in draft and is likely to be published before the completion of the SEA process for the IP.

Water quality data is collected by the EPA on water quality. The water quality at half (50%) of the monitored river water bodies in Ireland are categorised as being at 'good' and 'high' ecological status. Almost one fifth (18.5%) of monitored river water bodies are in poor or bad status and are severely polluted. There has been a 1% decline in the ecological health of monitored river water bodies since the 2013-2018 period. The majority of Ireland's population live on or near the coast and this creates pressure for transitional waters. New data recently published by the EPA for the period from 2018-2021 will inform the SEA for the Draft IP. Pollution from agricultural runoff (nitrates, phosphates etc.) and urban wastewater pose the biggest threat to transitional and coastal waters.

#### **Bioindicators Report (EPA, 2022)**

One of the most significant stressors on our water quality and ecosystem health is increased concentrations of nutrients, such as phosphorus and nitrogen, entering our waterways. These nutrients can enter our waters as a result of human activities such as agriculture, waste water (domestic and urban) and forestry. When excess nutrients enter our water courses, they cause an overgrowth of plants and algae. This in turn clogs up our water courses, uses up oxygen and harms other aquatic life such as insects (invertebrates) and fish in a process known as eutrophication. Changes in nutrient concentrations and biological quality are thus key indicators of progress in achieving our water quality objectives. While increased concentrations of both phosphorus and nitrogen can lead to eutrophication, the presence of excess phosphorus is a particular concern for the ecological health of our rivers and lakes while the impact of elevated levels of nitrogen is more of a concern for our estuaries. In addition, high nitrate concentrations in our drinking water supplies pose a risk to human health.

The EU Groundwater Directive (2006/118/EC) uses a holistic approach to groundwater by addressing the relationships between groundwater, surface water and ecological receptors. Groundwater is considered by its ecological status, which is based on two assessments: chemical and quantitative status. Both of these need to be in good condition for the overall water body to be classified as good.

Flooding, particularly from fluvial and coastal sources, is an increasing problem in Ireland and there have been notable flood events over the last ten years<sup>68</sup>. The OPW is the lead agency tasked with the management of flood risk in the ROI. In 2022, the OPW reviewed their 2016 Flood Risk Management Plans (FRMP). The purpose of each FRMP is to outline the long-term strategy to manage flood risk in Ireland.

- There has been no significant change in the biological quality of our rivers or lakes in 2022. The rate of decline largely matches the rate of improvement.

---

<sup>68</sup> Floodlist (2022) Archive of significant flood events in Ireland - Available at <https://floodlist.com/tag/ireland>

- Nitrate concentrations are too high in 40% of river sites nationally and in 20% of estuarine and coastal water bodies. These elevated levels are found mainly in the south and south east and are too high to support good water quality in our estuaries. This is primarily attributable to intensive agricultural activities on freely draining soils in these areas. Most of the nitrogen in Irish waters comes from organic and inorganic fertilisers.
- Average nitrate levels in rivers and groundwaters increased nationally between 2021 and 2022. While levels can fluctuate between years based on climate there is no indication that nitrate levels are reducing.
- Phosphate concentrations are too high in 28% of rivers and 36% of lakes which impacts on their biological quality. Concentrations will need to reduce in these rivers and lakes to improve water quality. Phosphate primarily comes from wastewater discharges and from agricultural run-off in areas with poorly draining soils.
- Phosphate levels in rivers and lakes fluctuate between years but have been generally stable over recent years.
- Nitrogen and phosphorous loadings to the marine environment have been generally increasing since 2013. Loads of both nutrients were higher in 2022 than in 2021, placing continued pressure on our marine water bodies.

#### 6.6.2 Future Trends (Evolution of the Baseline)

Ireland currently has a good understanding of the causes of water pollution, due to the implementation of the WFD. Proposed future development must meet the requirements of the WFD and aim to drive improvements and maintenance of water quality in the short term and provide a basis for the continued maintenance of good status in the future.

The EPA will continue to monitor the status of surface and groundwater bodies and are currently implementing the second cycle of RBMP.

The implementation of the POMs and monitoring for the MSFD is ongoing.

#### 6.6.3 Key Interactions with the Plan

The projects proposed in the Draft Grid IP have the potential to have the following impacts on the baseline environment:

- Potential pressures and impacts on water body status from the construction of transmission projects i.e. increased sedimentation, groundwater recharge and accidental spillages etc.

### 6.7 **Materials Assets and Infrastructure**

#### 6.7.1 Existing Conditions

National level material assets include transport infrastructure (roads, railways, canals, trams, airports and ports, and including shipping routes), power generation plants and supply networks, water supply, wastewater treatment infrastructure and waste disposal sites among others.

Wastewater and water treatment plants are now under the jurisdiction of Irish Water- subject to Licenses by the EPA. Other material assets covered by this SEA include archaeological and architectural heritage (see Section 6.2) natural resources of economic value, such as water, air and soil.

Possible links to natural capital and the understanding of ecosystem service flows are incorporated into the assessment.

### 6.7.2 Energy Related Material Assets and Infrastructure

In 2022, SEAI (2023<sup>69</sup>) published data showing 86.4% of Irelands energy came from fossil fuels at that time. Transportation and residential represented the highest resource demand. EirGrid have a smart grid information system which presents live measures of grid performance<sup>70</sup>.

The Grid successfully ran at between 70% and 75% variable renewable energy for a total of 232 hours during 2021/2022 trial<sup>71</sup>. EirGrid previously imposed a cap of 70% on the amount of variable renewable generation on the grid at a given time. In April 2022, this has now been raised to 75% following a successful 11-month trial. Under the 2023 Climate Action Plan, the Government has raised the Renewable Energy ambition from 70% of generation, to 'up to 80%'. EirGrid is exploring further changes to operational practices to operate the power system with variable renewable energy levels of up to 95% and with significantly reduced numbers of conventional units online. The figure of 95% will be required to deliver on the Climate Action Plan ambition, within the next Plan cycle.

EirGrid operate the transmission system comprised of 400 kV, 275 kV, 220 kV and 110 kV lines, cables and substations spanning across Ireland. EirGrid also operate the East West Interconnector, a 500 MW High Voltage Direct Current (HVDC) link between the electricity transmission grids of Ireland and Great Britain.

Transmission connected generation includes:

- Hydro generation;
- Thermal generation;
- Solar generation;
- Tidal generation;
- Gas generation;
- Pumped storage generation; and
- Wind generation.

---

<sup>69</sup> <https://www.seai.ie/data-and-insights/seai-statistics/key-publications/national-energy-balance/>

<sup>70</sup> EirGrid (2022) System information - Smart Grid Dashboard <https://smartgriddashboard.com/#all>

<sup>71</sup> <https://www.eirgridgroup.com/newsroom/electricity-grid-to-run-o/>

The generation of renewable energy has been increasing over the past ten years, with a growth in the number of wind farms (from 5.8% of gross final energy consumption in 2010 to 13.5 of GFC in 2020<sup>72</sup>). This is an important feature of EirGrid's function both onshore and offshore. There are plans to utilise Moneypoint as hub for renewable energy, both onshore and offshore - Green Atlantic at Moneypoint (esb.ie) The major power generation stations run by the ESB in Ireland include:

- Dublin: North Wall, Poolbeg and Dublin Bay Power;
- Cork: Aghada and Marina; and
- Clare: Moneypoint.

All traditional power plants are in a process of transition to renewable/sustainable sources to align with the targets in the Climate Action Plan 2023. The SEAI (2022) Statement of Strategy 2022 - 2025<sup>73</sup> promotes renewables nationally and sets a framework for considerations. In addition, a number of counties have developed stand-alone County Wind Energy and Renewable Energy Strategies which follow on from strategies outlined in individual County Development Plans. Such plans and strategies outline the distribution of significant wind energy developments granted permission as well as other potential wind energy development areas which are detailed in Section 3. of this SEA.

There are a number of solar farms proposed throughout Ireland some of which have already received planning permission and some are operational. Energy Storage and other technologies may be more widely used in the future; examples include Battery Energy Storage Systems (BESS).

EirGrid (2022<sup>74</sup>) states - "in the short term the deficits will increase due to the deteriorating availability of power plants, resulting in their unavailability ahead of intended retirement dates. Furthermore, by 2030 there will be significant additional load from the heat and transport sectors as they are electrified, in line with government targets set out in the Climate Action Plan 2021" (subsequently updated by the CAP 2023).

The transmission network specifically avoids interactions with the roads network to avoid potential conflicts, therefore the development of the roads network (by and large) is viewed as independent to the grid. Shipping lanes however are of key concern with regard to offshore renewables and the future development of the grid. Additionally gas and broadband infrastructure requires considerations – however, these details are more readily considered at project level during the six-step project development process which EirGrid already follows.

---

<sup>72</sup> SEAI. 2020. Overall renewable energy share - available at <https://www.seai.ie/data-and-insights/seai-statistics/key-statistics/renewables/>

<sup>73</sup> SEAI 2022. Statement of Strategy 2022 - 2025 <https://www.seai.ie/publications/Statement-of-Strategy-2022-2025.pdf>

<sup>74</sup> EirGrid. 2022. Ireland Capacity Outlook 2022-2031: Available at [https://www.eirgridgroup.com/site-files/library/EirGrid/EirGrid\\_SONI\\_Ireland\\_Capacity\\_Outlook\\_2022-2031.pdf](https://www.eirgridgroup.com/site-files/library/EirGrid/EirGrid_SONI_Ireland_Capacity_Outlook_2022-2031.pdf)

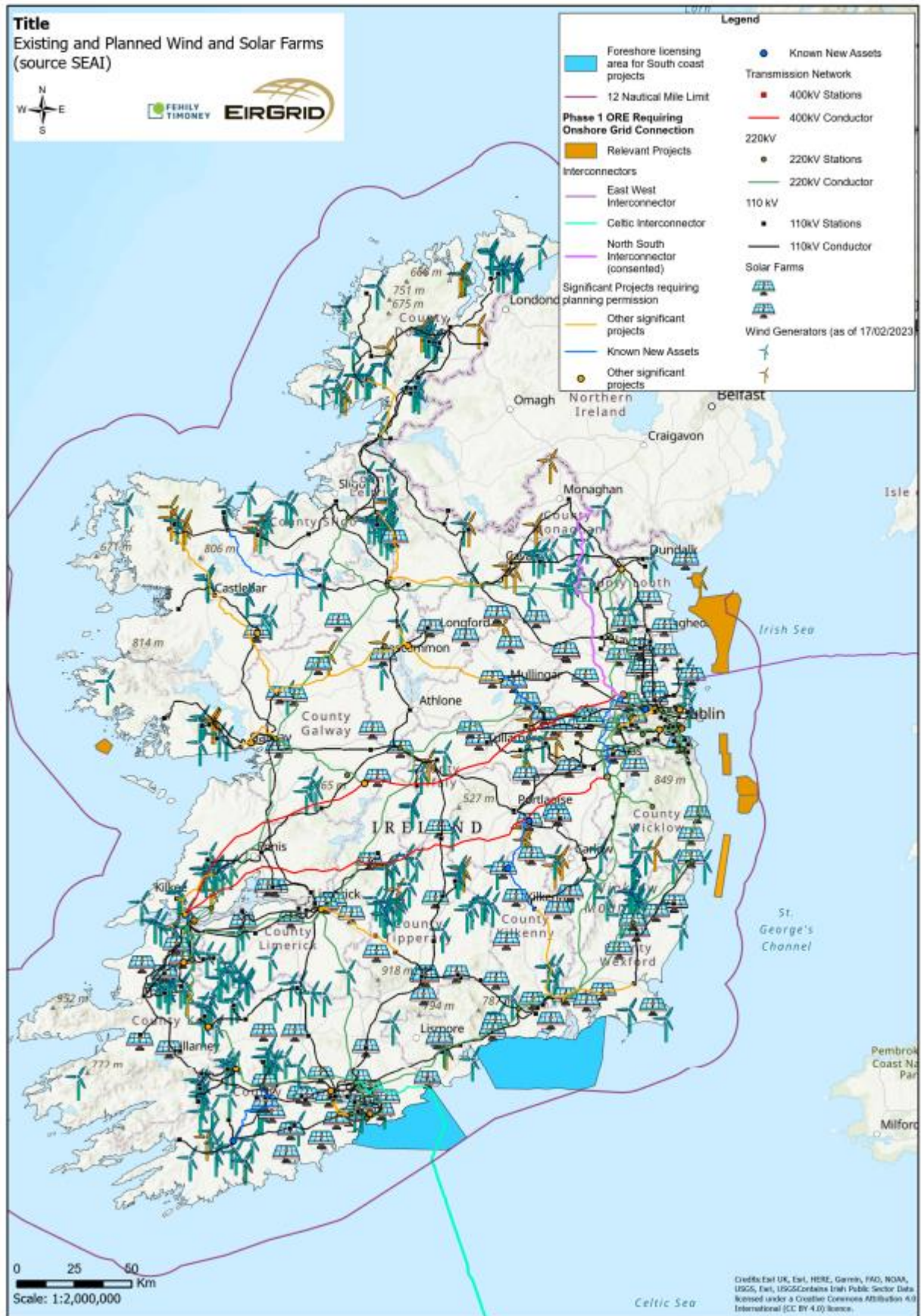


Figure 6-9 Existing wind and solar energy projects

### 6.7.3 Future Trends (Evolution of the Baseline)

Transport Infrastructure Ireland (TII) has a number of projects in planning and construction phases. A major public transport scheme which has recently commenced operation is the Macroom bypass. Road schemes which are currently in construction include the N59 Moycullen Bypass project and a number of national road projects in Kilkenny, Roscommon, Galway and Cork. Road network schemes pertinent to the Draft Grid IP which are currently in the planning stages of development include national road projects in Donegal, Mayo, Sligo, Galway, Cork, Kerry, Kildare and Meath. The continued expansion of the road, rail and other public transport networks will have a major influence on future economic and development trends in Ireland and, for which, the role of energy supply will have to factor in order to facilitate future demand.

There are a number of national strategies and plans in place for Ireland's energy needs with specific plans developed regarding renewable energy including the National Climate Action Plan 2023, Local Area Climate action plans, the Government's White Paper Ireland's Transition to a Low Carbon Energy Future (2015-2030). One of the most recent is the government publication of the Department of Energy, Communications and Natural Resources (DECNR) Offshore Renewable Energy Development Plan.

The SEAI Strategic Plan 2022-2025 promoted renewable energy both on a large commercial scale and as microgeneration. In addition, a number of counties have developed stand-alone County Wind Energy and Renewable Energy Strategies which follow on from strategies outlined in individual County Development Plans. Climate action plans are currently being developed by each local authority to be published by February 2024 at the latest. There are a number of solar farms built and in operation as well as more proposed throughout Ireland. Energy Storage and other technologies may be more widely used in the future.

### 6.7.4 Key Interactions with the Plan

The key issues in relation to Material Assets are as follows:

- Economic growth and development of infrastructure will increase the energy requirement within Ireland - particularly in the heat and transport sectors as they are electrified;
- Demands for increased renewable infrastructure and associated connection networks;
- Existing permitted developments which currently require connection on the grid or servicing; and;
- Effects of construction on current infrastructure such as road/rail/waterway networks.

## 6.8 **Tourism and Recreation**

### 6.8.1 Existing Conditions

Tourism and recreation are influenced by a range of factors in Ireland. For example, natural heritage in Ireland is characterized by a range of scenic landscapes which offer tourism and recreational opportunities such as walking, beaches, equestrian activities and golfing.



Failte Ireland have just launched their four brand strategies; Wild Atlantic Way, Irelands Ancient East, Irelands Hidden Heartlands and Dublin's a Breath of Fresh Air. As Ireland moves towards a low-carbon economy, Fáilte Ireland will deliver the Regenerative Tourism Scheme as part of the EU Just Transition Fund. Through this scheme, we'll develop tourism projects across the Midlands – sustaining jobs, businesses and communities. In March, 2017 each local authority launched the Tourism Strategy Statements and Workplans. These are aligned with the objectives of the LECPs. The Tourism Strategy Statements and Workplans are aligned with local, regional and national strategies and plans, in particular the Regional Action Plans for Jobs and the Government's tourism policy, 'People, Place and Policy: Growing Tourism to 2025'. Impact occurrence and severity are predicted by site type, visitor demographics and activity profile (Torsney & Buckley 2023).

### Environmental Health & Wellbeing (EPA, 2016)

Ireland has a high level of green spaces (parklands, woods, open countryside) and blue spaces (lakeshores, seashores, ponds and rivers) which contribute to good health and healthy lifestyles. The protection of these resources is seen as essential to environmental health and wellbeing.

Failte Irelands Tourism Barometer Strategic Research and Insight May 2023 identifies that:

- About half (53%) of businesses say they have had more visitors to date this year compared to 2022;
- Only about one in five (21%) are down;
- The highest proportions reporting to be up on last year are found among Dublin businesses (71%), inbound tour;
- operators & DMCs (19 out of 23), attractions (69%) and hotels (65%);
- The return of overseas visitors is behind the good performance, especially the North American market, whereby; and
- 56% of operators report being up year to date, compared to only 19% reporting the market to be down.

#### 6.8.2 Future Trends (Evolution of the Baseline)

There is now a requirement for local authorities to produce county specific tourism masterplans to facilitate and coordinate tourism in the county and region. The recently published four brand strategies from Failte Ireland focus on only providing funding and promotion support to environmentally compliant plans/projects. In the past decade there has been increased communication and alignment between tourism policy and on the ground action through the NPF and associated tourism plans.

The high level coordination and comprehensive set of tourism policies which are now clearly entrenched in the working processes of Failte Ireland and the local authorities lends itself to tourism having a more environmentally aware future. Additionally, Failte Ireland has developed a national tourism monitoring programme to further the current understanding of environmental impacts from tourism and have committed to providing the learning outcomes from this monitoring programme in the form of guidelines.

EirGrid has made a number of commitments under this initiative: *Your Grid, Your Views, Your Tomorrow*. Responding to Tourism Concerns that will influence the development the Grid into the future include:

- Give appropriate consideration to landscape when identifying and evaluating project options;
- Identify the nature of tourism in the project area; and
- Consider cumulative/in-combination impact on tourism.

### 6.8.3 Key Interactions with the Plan

The projects proposed in the Draft Grid IP have the potential to have the following impacts on the baseline environment:

- Transmission development may have the potential to restrict or reduce the quality of resources important for recreation and/or tourism including angling facilities, boating activities and/or associated resources;
- Demand for tourism infrastructure and associated power loadings could interact with the tourism sector.

## 6.1 Climate Change

### 6.1.1 Background

The Climate Action and Low Carbon Development (Amendment) Act 2021 (as amended) was established to provide for the approval of plans by the Government in relation to climate change.

This aims at pursuing the transition to a climate resilient, biodiversity rich and climate neutral economy by no later than the end of the year 2050. Irelands Climate Action Plan 2023 sets out Irelands National targets in this regard; moreover, Ireland has an Electricity & Gas Networks Sector Climate Change Adaptation plan<sup>87</sup> prepared under the National Adaptation Framework which set targets for EirGrid such as:

#### Climate Change (EPA, 2023)

With recent CSO preliminary 2022 census data showing a population of 5.12 million people and with population projected to increase to 5.5 million in 2030, 5.9 million in 2040 and 6.2 million by 2050, per capita emissions need to reduce significantly. At current per capita emission levels, each additional 500,000 people would contribute an additional 6 million tonnes of CO<sub>2</sub>eq annually.

Ireland's 2030 target under the EU's Effort Sharing Regulation (ESR) was to deliver a 30% reduction of emissions compared to 2005 levels by 2030. The ESR was amended in April 2023 and Ireland must now limit its greenhouse gas emissions by at least 42% by 2030.

The latest projections (June 2023) indicate that currently implemented measures (With Existing Measures) will achieve a reduction of 10% on 2005 levels by 2030, significantly short of the 42% reduction target. If measures in the higher ambition (With Additional Measures) scenario are implemented, EPA projections show that Ireland can achieve a reduction of 30% by 2030, still short of the 42% reduction target.

In 2021, the energy industries, transport and agriculture sectors accounted for 72.5% of total GHG emissions. Agriculture is the single largest contributor to the overall emissions, at 38.0%. Transport, energy industries and the residential sector are the next largest contributors, at 17.7%, 16.5% and 11.14%, respectively.

- EirGrid and ESB Networks will undertake an in-depth analysis of local, regional and system level flexibility requirements, and modify their own approaches and procedures to facilitate demand flexibility, to drive down costs to the consumer and provide the necessary flexibility to meet the needs of the energy transition to 2030;
- EirGrid will carry out further grid, operational and market studies to understand any additional measures, beyond current plans, to facilitate reduced sectoral emissions ceilings and, therefore, support annual renewable electricity share of up to 80%;
- The CRU and EirGrid will ensure an adequate level of conventional dispatchable generation capacity, to guarantee security of electricity supply, by publishing annually the levels of conventional dispatchable generation capacity required in each of the following 10 years. The CRU will ensure through market mechanisms, or other means, sufficient existing and conventional dispatchable generation capacity is available to meet the levels they set;
- EirGrid will develop a Power System Operational Policy Change Roadmap, setting out how power system operational policy will need to evolve to facilitate the integration of high levels of intermittent, non-synchronous renewable generation, including the reduction or removal of minimum generation constraints and increasing System Non-Synchronous Penetration (SNSP)
- EirGrid will evolve the operational tools and policies to facilitate the integration of interconnection, both in development and interconnectors yet to be identified; and
- EirGrid and ESB Networks will undertake analysis and implement the necessary measures to facilitate the integration of power generation technologies, including hybrid power plants. A framework to facilitate zero-carbon system services will be put in place as soon as possible to enable delivery of the 2030 targets.

The generation of renewable energy has been increasing over the past ten years, with a growth in the number of wind farms (from 5.8% of GFC in 2010 to 13.5 of GFC in 2020<sup>88</sup>). The Government's Climate Action Plan 2023 includes a target 51% reduction in overall greenhouse gas emissions by 2030; setting Ireland on a path to reach net-zero emissions by no later than 2050. However, there are additional challenges related to these targets - as the EirGrid 2022<sup>89</sup> states that "by 2031, 28% of all electricity demand is expected to come from data centres and other large energy users".

In an effort to address this both EirGrid and SONI have published a joint plan to inform a pathway to achieving energy and climate ambitions and objectives across both jurisdictions (Shaping our Electricity Future). *"Energy and climate policy in both jurisdictions contemplate an overall transition to net zero by 2050 and the Shaping Our Electricity Future Roadmap provides an outline of the key developments to support this transition. As a crucial first step on this transition, this Roadmap identifies the key initiatives required to reach at least 70% renewable electricity by 2030 from a network, engagement, operations and market perspective"*.

### 6.1.2 Future Trends (Evolution of the Baseline)

Future changes in climate and associated impacts on sea level, rainfall patterns/intensity and river flow will influence flooding frequency and extent in the future. Local Authorities in compliance with the Regional Spatial & Economic Strategies are attempting to adopt sustainable flood risk strategies in areas likely to be at risk of flooding in the future in the context of climate change and changing weather patterns. Changes to climate could lead to an increase in flooding events in Ireland. The OPW has undertaken a number of Flood Risk Management Studies for different River Basin Districts (RBDs) in Ireland. These studies have identified the areas which are most at risk and future management plans have been advised; these are adopted by the OPW. In some cases, mitigation measures will involve the construction of physical flood defenses.

### 6.1.3 Key Interactions with the Plan

The key issues in relation to Climate Change are as follows:

- The IP will contribute to the targets, set out in the Climate Action Plan 2023;
- The location of the future transmission network (existing or planned) should consider flood risk and location of proposed flood defense schemes;
- All policies and objectives within the Electricity & Gas Networks Sector Climate Change Adaptation Plan relevant to EirGrid must be implemented; and
- The potential impact of changes in climate including flooding and temperature increases should be factored into the IP.

## 6.2 **Transboundary Issues**

The SEA considers, where relevant and/or appropriate, potential transboundary effects in Northern Ireland. In addition, mitigation which has been developed as part of this SEA can be applied for any potential transboundary effects in the same manner in which they are applied for effects in the Republic of Ireland. The key issues are similar to those outlined under each theme in the previous sections but the key findings in relation to Northern Ireland are detailed in the table below.

**Table 6-5: Northern Ireland Baseline Environment**

SEA Topic	Key Findings
<b>Population, Human Health and the Economy</b>	The latest figures from Northern Ireland Statistics and Research Agency (NISRA) show that in 1,903,175 at the time of the 2021 Census. An increase of 5.1% since the 2011 Census, with further growth projected to 1.97 million by 2032. The 2 million milestone is anticipated to be reached by 2040.
<b>Biodiversity, Flora and Fauna</b>	Many habitats in Northern Ireland could be affected by implementation of the Draft Grid IP. A number of internationally and nationally designated sites should be considered when proposing cross-border strategies. <ul style="list-style-type: none"> <li>• Special Protection Areas (SPA) – 16;</li> <li>• Special Areas of Conservation (SAC) – 58;</li> <li>• Ramsar Sites - 20;</li> <li>• Nature Reserves – 48;</li> </ul>

SEA Topic	Key Findings
	<ul style="list-style-type: none"> <li>• Marine Nature Reserves – 1 (Strangford Lough);</li> <li>• Areas of Special Scientific Interest (ASSI) – over 400;</li> <li>• Sites of Local Nature Conservation Importance (SLNCIs) – over 100;</li> <li>• Areas of Outstanding Natural Beauty – 9;</li> <li>• World Heritage Site – 1 (Giant’s Causeway).</li> </ul>
<b>Landscape and Visual Amenity</b>	<p>The landscape environment and trends are similar in Ireland and Northern Ireland and therefore the same key issues should be considered.</p>
<b>Cultural Heritage</b>	<p>Cultural Heritage designations of Northern Ireland should be considered when making plan recommendations.</p> <ul style="list-style-type: none"> <li>• Sites and Monuments – approximately 16,000;</li> <li>• Monuments in State Care – almost 200;</li> <li>• Scheduled Historic Monuments – almost 2,000;</li> <li>• Historic Buildings – over 9,000;</li> <li>• Listed Buildings – approximately 8,500;</li> <li>• Areas of Significant Archaeological Interest – 10;</li> <li>• Conservation Areas – 60;</li> <li>• Defence Heritage Features – over 600;</li> <li>• Battlefields – over 30;</li> <li>• Heritage Gardens Inventory – over 154; and</li> <li>• World Heritage Sites – 1 (The Giant’s Causeway).</li> </ul> <p>The Northern Ireland Department of Communities historic environmental datasets have been important in consideration of potential transboundary impacts on the setting of heritage assets along the border region. These are available at: <a href="https://www.communities-ni.gov.uk/services/historic-environment-map-viewer">https://www.communities-ni.gov.uk/services/historic-environment-map-viewer</a></p>
<b>Geology and Soils</b>	<p>Similar geological make up in terms of the presence of predominantly limestone, but also granite, sandstone and basalt. Numerous ASSI’s have been designated for geological value and should be considered when making plan recommendations.</p>
<b>Air Quality and Noise</b>	<p>There are 28 Air Quality Management Areas that are leading the activity to tackle air quality problems. There is continued improvement in air quality, but problems do remain for nitrogen dioxide emissions due to transport. Agricultural emissions from ammonia remain high and threaten ecosystems and habitats. Continued effort is required to reduce air pollution from key sources such as road transport and agriculture.</p> <p>Noise emissions are of a similar level to Ireland with similar sources.</p>
<b>Water</b>	<p>There are numerous waterbodies which cross the Irish border which have the potential to cause transboundary impacts. Cross border catchments in Ireland include:</p> <ul style="list-style-type: none"> <li>• Lough Neagh and Lower Bann: This catchment includes the area drained by the River Bann and by all streams entering tidal water between the</li> </ul>

SEA Topic	Key Findings
	<p>Barmouth and Ballyaghan Point, Co. Derry. This is a cross border catchment with a surface area of 5,787km<sup>2</sup>, 374km<sup>2</sup> of which is located within the Republic of Ireland (RoI).</p> <ul style="list-style-type: none"> <li>• River Foyle: The Foyle catchment includes the area drained by the River Foyle and by all streams entering tidal water between Culmore Point, Co. Derry and Coolkeeragh, Co. Derry. This is a cross border catchment with a surface area of 2,919km<sup>2</sup>, 914km<sup>2</sup> of which is located within the Republic of Ireland (RoI). The eastern half of the catchment, located in Northern Ireland, drains most of County Tyrone and a small part of north western County Derry. The part of the catchment located in Donegal is largely mountainous.</li> <li>• Newry, Fane, Glyde and Dee: This catchment includes the area drained by the Newry, Fane, Glyde and Dee rivers, and by all streams entering tidal water between Murlough Upper and The Haven, Co. Louth. This is a cross border catchment with a surface area of 2,125 km<sup>2</sup>, 1390 km<sup>2</sup> of which is located within the Republic of Ireland (RoI).</li> </ul> <p>The cross-border impacts on these waterbodies should be considered when making recommendations within PLUTO 2040. Any proposals that might involve construction within Northern Ireland should consider the wider water environment of Northern Ireland.</p>
<p><b>Materials Assets and Infrastructure</b></p>	<p>Viable agricultural land is a key asset to the Northern Ireland economy; approximately 75% of Northern Ireland’s land is used for agriculture. Forestry is also a significant asset to Northern Ireland. Forests and woodlands provide important habitats, natural resources and diversity to landscapes. NI has the lowest level of tree cover (8%) of any UK regional territory or EU member states.</p> <p>Resource depletion is becoming an increasingly significant issue at a global and national level. Registered forest and woodlands are recognised for the significant part they play in tourism and recreation as well as enhancing and protecting habitats and biodiversity.</p> <p>Given the role forestry plays in carbon offsetting, and the current low levels of afforestation at present it is expected that the area covered by forest will not increase significantly but the level of protection will remain high.</p> <p>Ireland has many important road connections with Northern Ireland in addition to a cross- border rail connection between Dundalk and Newry. Northern Ireland has three commercial airports, in Belfast International Airport and Belfast City Airport and City of Derry Airport, as well as five commercial ports in Belfast, Larne, Londonderry, Coleraine and Warrenpoint.</p> <p>Any proposals in proximity to Northern Ireland should assessed in terms of the potential to impact or reduce access to transport networks in or to Northern Ireland.</p>
<p><b>Tourism and Recreation</b></p>	<p>Tourism Ireland in its 2018 Marketing Plan has committed to promoting tourism in Northern Ireland including major themes attractions such as the Causeway Coastal Route, Titanic Belfast, the Giant’s Causeway, National Trust properties and ‘Screen tourism’ such as the Game of Thrones tours and attractions. (Tourism Ireland, 2017) Many overseas visitors take the opportunity to visit Northern Ireland when visiting Ireland and vice versa. Any proposals in proximity to Northern Ireland should assessed in terms of the</p>

SEA Topic	Key Findings
	potential to impact or reduce access to tourism and recreation attractions in Northern Ireland.
<b>Climate Change</b>	<p>There is evidence that the climate in Northern Ireland is changing. There has been a reduction in greenhouse gas emissions, but road transport emissions are still increasing. There are government targets towards reducing greenhouse gas emissions by at least 35% by 2025 based on 1990 levels but this will prove challenging.</p> <p>The UK Climate Change Act commits the UK to reducing emissions by at least 80% by 2050 from 1990 baseline levels. In 2015, Northern Ireland's total greenhouse gas emissions accounted for 4.2% of the UK total. Since the base year (1990), Northern Ireland's total greenhouse gas emissions have decreased by 17.8% from 25.2 to 20.7 million tonnes of carbon dioxide equivalent (MtCO<sub>2</sub>e). This is less than the reduction seen for the UK as a whole, which saw a decrease of 38.2% compared to the base year.</p>

### 6.2.1 Key Interactions with the Plan

- The plan does not include proposals for projects within Northern Ireland, however depending on the projects implemented there is potential for transboundary effects from infrastructure physically close to the border and from related requirements for upgrading or new infrastructure. The interactions with the plan and the environment of Northern Ireland and the mitigation measures required are expected to be similar in type to those identified in Ireland.
- Potential effects from developments which arise due to the implementation of the Draft IP such as interconnectors which could include effects to England, Scotland, Wales and France.

Key Messages from Section 6 of this report:
<ul style="list-style-type: none"> <li>• The purpose of the baseline data gathering is to inform the key issues and identify the likely significant effect from the Draft Grid IP.</li> <li>• Desk based baseline information was collated over a range of 11 aspects as follows:               <ul style="list-style-type: none"> <li>○ Population, Human Health and the Economy;</li> <li>○ Biodiversity</li> <li>○ Landscape, Seascape and Visual Amenity</li> <li>○ Cultural heritage</li> <li>○ Geology and Soils</li> <li>○ Land use</li> <li>○ Air Quality and Noise</li> <li>○ Water</li> <li>○ Material Assets</li> </ul> </li> </ul>

### Key Messages from Section 6 of this report:

- Tourism and Recreation
- Climate Change
- The EPA State of the Environment Report, which outlines the current understanding of the environment in Ireland and sets seven key actions to address ongoing issues, was reviewed to inform the key issues and identify the likely significant effects of the Draft Grid IP.
- A review of the EirGrid EBES was undertaken and the key findings of these studies over a number of aspects helped to inform the key issues and identify the likely significant effects of the Draft Grid IP – full details in Appendix E.



## 7. PROGRAMME, PLAN AND POLICY REVIEW

### 7.1 Introduction

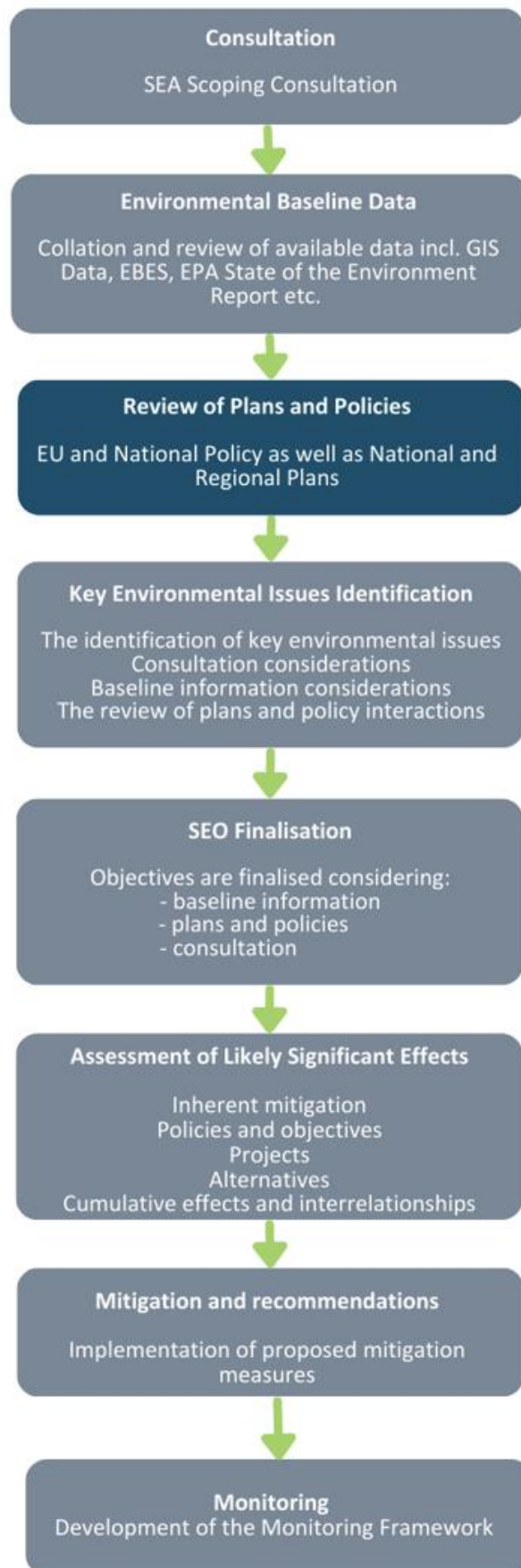
SEA requires a review of other programmes, plans and policies (PPP's) in order to identify any potential relationship between the Draft Grid IP objectives and these other PPPs.

Additionally, an initial review of PPP's was conducted at the scoping stage of the SEA. The main purpose of the review at this stage was to assist in providing context to the SEA assessment and to inform our understanding of relevant baseline information.

Table 7-1 below lists the main PPP's as relevant to the key themes of the SEOs – for more plans and programmes see Appendix A.

The potential relationship of the Draft Grid IP in combination with other key plans and programmes such as those relevant due to sector or geographic influences has been assessed and is presented in **Section 11.6.2** of this Environmental Report.

A summary of all the key documents reviewed at the scoping stage of the SEA can be found in Appendix A.



**Table 7-1: List of the Programmes, Plans and Policies relevant to SEO Theme – for more plans and programmes see Appendix A**

SEO Theme	Key PPP Sources
All	<ul style="list-style-type: none"> <li>• Shaping our Electricity Future.</li> <li>• Transmission Development Plan (TDP).</li> <li>• Strategic Environmental Directive (2001/42/EC) and associated Irish legislation.</li> <li>• Environmental Impact Assessment Directive (2014/52/EU) and associated Irish legislation.</li> <li>• Ireland 2040 Our Plan - National Planning Framework (2018).</li> <li>• National Development Plan (2018-2027).</li> <li>• Regional Spatial and Economic Strategies (RSES).</li> <li>• County and Local Area Development Plans National Planning and Development Regulations.</li> <li>• Government Policy Statement on Strategic Importance of Transmission and Other Energy Infrastructure (2012).</li> <li>• Local Authorities Climate Action Plans (LACAPs) – 2024-2028.</li> <li>• National Climate Action Plan (2023).</li> <li>• Renewable Electricity Policy and Development Framework (DCCAE, ongoing).</li> </ul>
Population, Human Health & the Economy	<ul style="list-style-type: none"> <li>• Environmental Impact Assessment Directives (2011/92/EU &amp; 2014/52/EU) and associated Irish legislation.</li> <li>• Capital Investment Plan 2020-2024.</li> <li>• National Development Plan (2018-2027).</li> <li>• Ireland 2040 Our Plan - National Planning Framework (2018).</li> </ul>
Biodiversity, Flora & Fauna	<ul style="list-style-type: none"> <li>• The Habitats Directive (92/43/EEC).</li> <li>• The Birds Directive (2009/147/EC).</li> <li>• National Biodiversity related Regulations.</li> <li>• EU Biodiversity Strategy.</li> <li>• National Biodiversity Plan.</li> <li>• County &amp; City Heritage Plans.</li> </ul>
Landscape & Visual Amenity	<ul style="list-style-type: none"> <li>• A National Landscape Strategy for Ireland (NLS) incl. the future National Landscape Character Assessment.</li> <li>• County Landscape Character Assessments.</li> </ul>
Cultural Heritage - Archaeology & Architectural	<ul style="list-style-type: none"> <li>• National Cultural Heritage related legislation.</li> <li>• National Heritage Plan.</li> <li>• County &amp; City Heritage Plans.</li> </ul>
Geology and Soils	<ul style="list-style-type: none"> <li>• The Irish Geological Heritage Programme 1998-ongoing.</li> </ul>
Land use	<ul style="list-style-type: none"> <li>• See theme All above.</li> <li>• Discussion document for the preparation of a National Policy Statement on the Bioeconomy.</li> </ul>

SEO Theme	Key PPP Sources
Air Quality & Noise	<ul style="list-style-type: none"> <li>• Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC).</li> <li>• Environmental Protection Agency Act 1992.</li> <li>• EU Environmental Noise Directive 2002/49/EC.</li> </ul>
Water	<ul style="list-style-type: none"> <li>• Water Framework Directive (2000/60/EC) and associated Irish legislation.</li> <li>• Environmental Quality Standards Directive 2008/105/EC.</li> <li>• Marine Spatial Planning Directive (2014/89/EC)</li> <li>• Marine Strategy Framework Directive (2008/56/EC) and associated Irish legislation.</li> <li>• Flood Directive (2004/60/EC) and associated Irish legislation.</li> <li>• River Basin Management Plans.</li> <li>• Flood Risk Management Plans (FRMP).</li> <li>• National Catchment Flood Risk Assessment and Management (CFRAM) Studies.</li> <li>• National water protection related Regulations.</li> <li>• Water Service Strategic Plan.</li> </ul>
Material Assets & Infrastructure	<ul style="list-style-type: none"> <li>• County based waste management strategies and mineral plans.</li> <li>• National Policy Framework on Alternative Fuels Infrastructure for Transport (AFF).</li> <li>• Wind Energy Development Guidelines 2006.</li> </ul>
Tourism & Recreation	<ul style="list-style-type: none"> <li>• Failte Ireland’s four Brand Strategies – Wild Atlantic Way, Irelands Ancient East, Irelands Hidden Heartlands and Dublin’s a Breath of Fresh air.</li> <li>• County-based recreation strategies.</li> </ul>
Climate Change	<ul style="list-style-type: none"> <li>• The Kyoto Protocol.</li> <li>• The Climate Action and Low Carbon Development Act 2015.</li> <li>• Climate Change Adaptation Framework.</li> <li>• Climate Action Plan 2023</li> <li>• Energy White Paper: Delivering a Sustainable Energy Future for Ireland-the Energy Policy Framework 2007-2020.</li> <li>• 2020 Climate and Energy Package.</li> <li>• National Renewable Energy Action Plan.</li> <li>• Offshore Renewable Energy Development Plan incl. interim review.</li> <li>• Wind Energy Development Guidelines 2006 (currently under review).</li> <li>• County Wind Energy Strategies.</li> <li>• County Renewable Energy Strategies.</li> <li>• Flood Risk Directive (2004/60/EC) and associated Irish legislation.</li> <li>• Ireland and the Climate Change Challenge - Connecting How Much with How to (2012).</li> <li>• National Mitigation Plan (NMP).</li> <li>• Renewable Electricity Policy and Development Framework.</li> <li>• National Energy Efficiency Action Plan (NEEAP).</li> </ul>

### Key Messages from Section 7:

- EirGrid have developed a number of policies and objectives in the Draft Grid IP which will support the relevant legislative policies, programmes and plans.
- There are a number of relationships between the Draft Grid IP and other plans and programmes. These are detailed in Section 11.
- Development within the Draft Grid IP will need to comply with legislative requirements and have regard to National and Regional Plans.

## 8. KEY ENVIRONMENTAL ISSUES

To establish the likely significant environmental effects of the Draft Grid IP and grid development in general we must first achieve an understanding of the key environmental issues and considerations.

Table 8-1 summaries the major environmental issues identified as relevant to each aspect from the Draft Grid IP based on the baseline data gathering exercise, the EPA State of the Environment Report, the review of the EirGrid EBES and the consultation undertaken as part of the SEA Scoping Report:



**Table 8-1: Environmental Issues Relevant to the Draft Grid IP**

Theme	Summary of Environmental Issues
<b>Population, Human Health &amp; the Economy</b>	<ul style="list-style-type: none"> <li>• Population and development growth will influence the energy requirement within Ireland;</li> <li>• Settlement patterns influence the location of transmission development projects;</li> <li>• The construction of transmission infrastructure can cause disruption to the local community, such as noise, dust, disruption to services/utilities and traffic etc.;</li> <li>• Public perception of transmission development proposals;</li> <li>• Potential impacts to energy supply to industry services (e.g. fishing industry, tourism etc.);</li> <li>• Perceived risk and associated anxiety issues related to grid development;</li> <li>• Potential visual effect of transmission lines, see also Section Landscape, Seascape and Visual Amenity Landscape, Seascape and Visual Amenity.</li> </ul>
<b>Biodiversity, Flora &amp; Fauna</b>	<ul style="list-style-type: none"> <li>• Route selection and classification criteria are a key consideration in the development of the IP due to the largely linear nature of the developments associated with the IP.</li> <li>• The potential for effects to the marine environment - particularly with respect to noise impacts or impacts to ranging patterns of vagile species or benthic communities around sea cabling;</li> <li>• The potential for effects on non-designated biodiversity features e.g. important habitats and species outside designated sites - particularly with regard to fragmentation, barriers to movement and displacement;</li> <li>• The potential for effects on protected areas: National and European sites (e.g. SAC, SPAs, RAMSAR), National sites (e.g. NHAs) and other Natural Heritage Sites and Conservation Interest Sites e.g. refuge for fauna or flora, wildfowl reserves;</li> <li>• The requirement for ecological protection can pose restrictions to existing/future transmission development;</li> <li>• The potential to spread invasive species; and</li> <li>• Potential for biodiversity enhancement.</li> </ul>
<b>Landscape, Seascape &amp; Visual Amenity</b>	<ul style="list-style-type: none"> <li>• Effects of transmission infrastructure on areas of designated landscape quality and scenic views etc.;</li> <li>• Grid development options can be constrained by the need to protect the landscape character and features;</li> <li>• Sensitivity of the landscape to change from transmission infrastructure; and</li> <li>• Visual intrusion on receptors from transmission infrastructure.</li> </ul>
<b>Cultural Heritage - Archaeology &amp; Architectural</b>	<ul style="list-style-type: none"> <li>• The potential impact of the construction of transmission infrastructure on archaeological and architectural heritage, including risk of encountering UXO in the marine environment;</li> <li>• The potential impact on the setting of archaeological and architectural heritage due to the permanent presence of transmission infrastructure; and</li> <li>• Grid development options can be constrained by the need to protect the character of areas of existing archaeological and architectural resources.</li> </ul>

<b>Geology &amp; Soils</b>	<ul style="list-style-type: none"> <li>• Potential for impacts on geological features (such as karst) or geological designations;</li> <li>• Potential for impacts on soil resources and offshore sediment transport;</li> <li>• Potential impacts to soils (land) vulnerable to erosion; and</li> <li>• Potential for unearthing contaminated material.</li> </ul>
<b>Land Use</b>	<ul style="list-style-type: none"> <li>• Potential constraints on sea fisheries, both during construction and operation of infrastructure projects associated with the IP; and</li> <li>• Potential constraints on other sections such as agricultural, forestry and fisheries; primarily related to construction and operation of infrastructure projects associated with the IP.</li> </ul>
<b>Air Quality &amp; Noise</b>	<ul style="list-style-type: none"> <li>• Transmission developments, particularly during the construction phase, may have a temporary negative impact on air quality and create noise pollution; and</li> <li>• High voltage transmission infrastructure has associated noise outputs - note there is no above ground noise associated with underground cabling.</li> </ul>
<b>Water</b>	<ul style="list-style-type: none"> <li>• Potential pressures and impacts on water body status from the construction of transmission projects i.e. increased sedimentation, groundwater recharge and accidental spillages etc.</li> </ul>
<b>Material Assets &amp; Infrastructure</b>	<ul style="list-style-type: none"> <li>• Economic growth and development of infrastructure will increase the energy requirement within Ireland - particularly in the heat and transport sectors as they are electrified;</li> <li>• Demands for increased renewable infrastructure and connection networks;</li> <li>• Existing permitted developments which currently require connection on the grid or servicing; and</li> <li>• Effects of construction on current infrastructure such as road/rail/waterway networks.</li> </ul>
<b>Tourism &amp; Recreation</b>	<ul style="list-style-type: none"> <li>• Transmission development may have the potential to restrict or reduce the quality of resources important for recreation and/or tourism including angling facilities, boating activities and/or associated resources;</li> <li>• Demand for tourism infrastructure and associated power loadings could interact with the tourism sector.</li> </ul>
<b>Climate Change</b>	<ul style="list-style-type: none"> <li>• The IP will contribute to the renewable energy targets, as set out in the Climate Action Plan 2023;</li> <li>• The location of the future transmission network (existing or planned) should consider flood risk and locations of proposed flood defense schemes;</li> <li>• All policies and objectives within the Electricity &amp; Gas Networks Sector Climate Change Adaptation Plan relevant to EirGrid must be implemented;</li> <li>• The potential impact of changes in climate including flooding and temperature increases should be factored into the IP.</li> </ul>
<b>Transboundary Effects</b>	<ul style="list-style-type: none"> <li>• Potential effects from developments which arise due to the implementation</li> <li>• of the IP such as interconnectors which could include effects to Northern Ireland, England, Scotland, Wales and France.</li> </ul>

### Key Messages from Section 8:

- Key environmental issues have been identified across all aspects of the Draft Grid IP based on existing baseline data, professional judgment and the review of the EBES.



## 9. SEA STRATEGIC ENVIRONMENTAL OBJECTIVES

### 9.1 Introduction

The SEOs are methodological measures developed from policies which usually govern environmental protection objectives established at an EU or national level. The SEOs are used as standards against which the components of the Draft Grid IP can be evaluated in order to identify the provisions which have the potential to result in likely significant environmental effects.

The development of the SEOs also has regard to the baseline conditions (as set out in Section 6. ), consultation and the identification of the key environmental issues. The development of these objectives ensures that the SEA focuses only on those issues that are most relevant and of significance to the Draft Grid IP and the Study Area.

The SEOs are separate to the objectives contained within the Draft Grid IP itself.

The SEOs have been divided into themes as follows with at least one SEO for each theme:

- Overall;
- Population, Human Health & the Economy;
- Biodiversity, Flora & Fauna;
- Landscape & Visual Amenity;
- Cultural Heritage - Archaeology & Architectural;
- Geology and Soils;
- Land use;
- Water;
- Material Assets & Infrastructure;
- Tourism & Recreation; and
- Climate Change.

The SEA Strategic Environmental Objectives, as set out in Table 9-1 and each objective has an associated target and indicator (as detailed in the Monitoring Section 13. ).



**Table 9-1: Strategic Environmental Objectives**

Environmental Theme	Strategic Environmental Objective
Overall	<b>O1:</b> Ensure, where appropriate, that lower level plans and projects implement SEA mitigation and policies and contribute to overall environmental monitoring processes within EirGrid .
Population, Human Health & the Economy	<b>PHH1:</b> Minimise the proximity of development to concentrations of population in order to reduce actual and/or perceived environmental effects.
Biodiversity, Flora & Fauna	<b>B1:</b> Ensure compliance with Habitats and Birds Directives with regard to protection of European Sites and Annexed habitats and species <sup>75</sup> .
	<b>B2:</b> Support Article 10 of the Habitats Directive with regard to ecological networks
	<b>B3:</b> Avoid, or minimise significant impacts on semi-natural habitats, species, and nationally designated sites
	<b>B4:</b> Restore or enhance nature (including net habitat gain)
Landscape, Seascape & Visual Amenity	<b>L1:</b> Avoid or, minimise impacts to statutory landscape and seascape designations, including those in the land use plans of planning authorities.
	<b>L2:</b> Avoid or minimise adverse visual effects on sensitive receptors.
Cultural Heritage - Archaeology & Architectural	<b>CH1:</b> Avoid impacts upon archaeological heritage sites
Geology and Soils	<b>GSL1:</b> Avoid or minimise effects on mineral resources or soils.
Land use	<b>LU1:</b> Avoid or minimise effects on existing land and marine use.
Water	<b>W1:</b> Maintain and/or improve, the quality and status of surface waters, including supporting for the objectives for the Draft Third Cycle River Basin Management Plan (2022-2027) where relevant and appropriate
	<b>W2:</b> Maintain and/or improve, the chemical and quantitative status of groundwaters.
	<b>W3:</b> Prevent impact upon the WFD status of surface waters and groundwater in line with the requirements of the WFD.
	<b>W4:</b> Comply as appropriate with the provisions of the Flood Risk Management Guidelines.
Material Assets & Infrastructure	<b>MAI1:</b> Avoid or minimise effects on built/amenity assets and infrastructure.

<sup>75</sup> ‘Annexed habitats and species’ refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

Environmental Theme	Strategic Environmental Objective
	<b>MAI2:</b> Avoid or minimise effects on effects upon existing and (where known) planned infrastructure.
Tourism & Recreation	<b>TR1:</b> Avoid, or minimise effects upon tourism and recreation amenities.
Climate Change	<b>CF1:</b> Delivery of the necessary grid infrastructure to facilitate Up to 80% of electricity from renewable sources by 2030

#### Key Messages from Section 9 of this report:

- The SEOs have been developed with regard to the baseline conditions, consultation, the plan and policy review and key environmental issues identified.
- Thirteen SEOs have been developed over ten themes.
- The SEOs are used to assess the likely significant effects of the implementation of the Draft Grid IP.

## 10. ASSESSMENT METHODOLOGY

### 10.1 Scoping and Consultation Feedback

Details of the Screening (Stage 1) and SEA Scoping (Stage 2) are provided in **Section 4.2**. An overview of the Stage 3 process for the Draft Grid IP is provided in **Section 4.2.2** and shown in Figure 4-2. This section details the specific assessment methodology and criteria used.

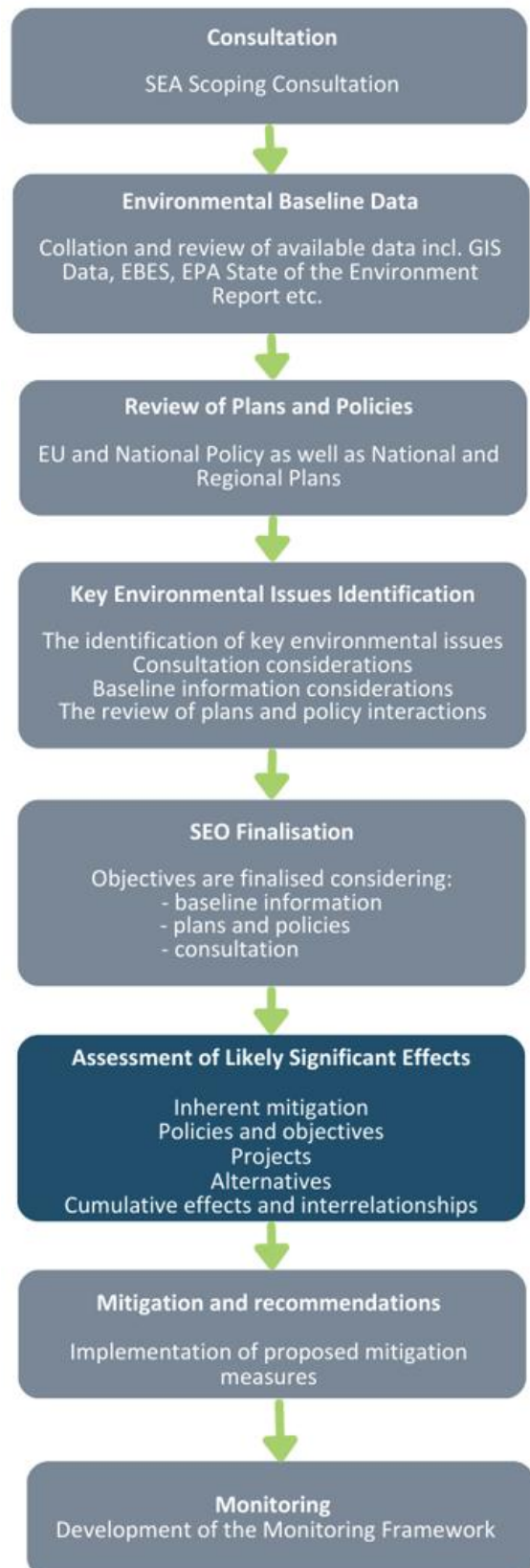
Feedback received from the consultation to date is provided in **Appendix C**. This feedback has been accounted for in the development of the SEA methodology and assessment as appropriate.

### 10.2 Influencing the Draft Grid IP through SEA

The Draft Grid IP sets out how the 2017 Strategy for the planning and sustainable development of the Grid will be implemented across Ireland. As part of this the Draft Grid IP outlines a number of policies and objectives for implementation of the strategy across their approach to the following areas:

- Environment;
- Technology;
- Project Development;
- Planning and Consenting of Projects;
- Consultation and Engagement; and
- Human Beings and Society.

The environmental assessments (SEA and AA) have influenced the development of these policies and objectives; confirming compliance with legislative requirements, ensuring that key issues identified through the SEA scoping and assessment phase are addressed. The review of plan and policy document has identified some gaps in the draft policies and objectives initially proposed, and additional policies and/or objectives have been recommended for inclusion in the Draft Grid IP.



Future projects outlined in the Draft Grid IP are taken from those identified in the TDP 2017-2023 and Shaping our electricity future. The Draft Grid IP itself does not identify new or alternative grid development projects outside the 2012 strategy and TDP. This SEA for the Draft Grid IP assesses the likely significant effects of these projects against the SEO and proposes mitigation measure, recommendations and monitoring in relation to these projects.

### 10.3 SEA Assessment Criteria

The Draft Grid IP plan components (the policies and objectives, the projects, and the plan alternatives) have been assessed against the SEOs in line with the criteria outlined in Table 10-1. This criterion was presented in draft format in the SEA Scoping Report issued for consultation. The assessment process has been undertaken with the assumption that the inherent mitigation measures (as set out in **Section 11.2**) are and will be in place for development proposed in the Draft Grid IP.

**Table 10-1: SEA Assessment Criteria**

Description of Likely Significant Effect (LSE)	Effect
The plan component is likely to have a positive effect on the environmental receptors associated with this SEO.	+
The plan component is likely to have a negative effect on the environmental receptors associated with this SEO.	-
The plan component effects are uncertain/there is insufficient information on which to determine effect on the environmental receptors associated with this SEO.	?
The plan component is likely to have a neutral effect on the environmental receptors associated with this SEO.	*
The plan component is likely to have a mixed positive & negative effect on the environmental receptors associated with this SEO with stronger positive effect.	+/-
The plan component is likely to have a mixed negative & positive effect on the environmental receptors associated with this SEO with stronger negative effect.	-/+

### 10.4 Inter-Relationships & Cumulative Effects

In accordance with the SEA Directive, it is important to recognize the inter-relationships between environmental aspects, as changes to one environmental aspect can directly and indirectly influence others. Potential inter- relationships between environmental aspects are identified and explained in Section 11.6 These inter- relationships are typically indirect negative and positive effects associated with direct effects on other SEO receptors.

The potential inter-relationship with the other plans is considered in Section 11.6. This section outlines how the Draft Grid IP and the objectives and policies therein have had regard to other national and regional plan and policy documents (PP). This outlines the relevant policies and objectives that have been included in the Draft Grid IP and how these relate to these PP. It also identifies any gaps between the Draft Grid IP policies and objectives and the requirement of these PP. Where gaps have been identified, mitigation in the form of further policies and objectives to be included in the Draft Grid IP has been recommended.

This SEA considered the potential cumulative effects between projects within the Draft Grid IP and these are assessed against the SEOs similar to the methodology set out in Table 10-1 in Section 11.6. In addition, the SEA also considers potential cumulative effects between the Draft Grid IP components and other infrastructural developments identified. A discussion on this is provided in Section 11.6.3.

## 10.5 Appropriate Assessment

The preparation of the Plan, SEA and AA has taken place concurrently and the findings of the AA have informed both the Plan and the SEA. All recommendations made by the AA were integrated into the Plan. A Stage 2 Appropriate Assessment (AA) has been undertaken alongside the preparation of the Plan.

The AA process is being undertaken in accordance with the following guidance documents:

- Appropriate Assessment of Plans and Projects in Ireland. Guidance for Planning Authorities, Department of the Environment, Heritage and Local Government, 2009;
- “Commission Notice: Managing Natura 2000 sites - The provisions of Article 6 of the ‘Habitats’ Directive 92/43/EEC”, European Commission 2018;
- “Assessment of plans and projects significantly affecting Natura 2000 sites: Methodological guidance on the provisions of Article 6(3) and (4) of the Habitats Directive 92/43/EEC”, European Commission Environment DG, 2002; and
- “Managing Natura 2000 sites: The Provisions of Article 6 of the Habitats Directive 92/43/EEC”, European Commission, 2000; and
- Appropriate Assessment Screening for Development Management; OPR Practice Note PN01; Office of the Public Regulator, 2021.

Full detail of the assessment in relation to the EU Habitats Directive is included in the NIS for the Draft Grid IP.

## 10.6 Data Gaps and Limitations

This SEA is being undertaken using best available data and methodologies at the time of assessment. However, there remain a number of data gaps and limitations which limit the scope and content of the assessment. These include:

- This baseline description is not intended to be an exhaustive description of all baseline environmental data for Ireland.
- Certain baseline data was not available at the time of writing, such as landscape character assessment designations across some development areas.
- The nature of the process of grid development is that for a number of projects, the details are relatively undeveloped. The need for projects is identified but specific elements are not known such as the location or technology to be used.

Further details of the datasets used are provided in Appendix D.

### Key Messages from Section 10:

- The SEA and AA have influenced the development of the Draft Grid IP.
- The SEOs have been used to assess the likely significant effects of the Draft Grid IP components.
- The NIS was undertaken in line with relevant guidance.
- Some data gaps and limitation have been identified.

## 11. ASSESSMENT OF THE GRID IP

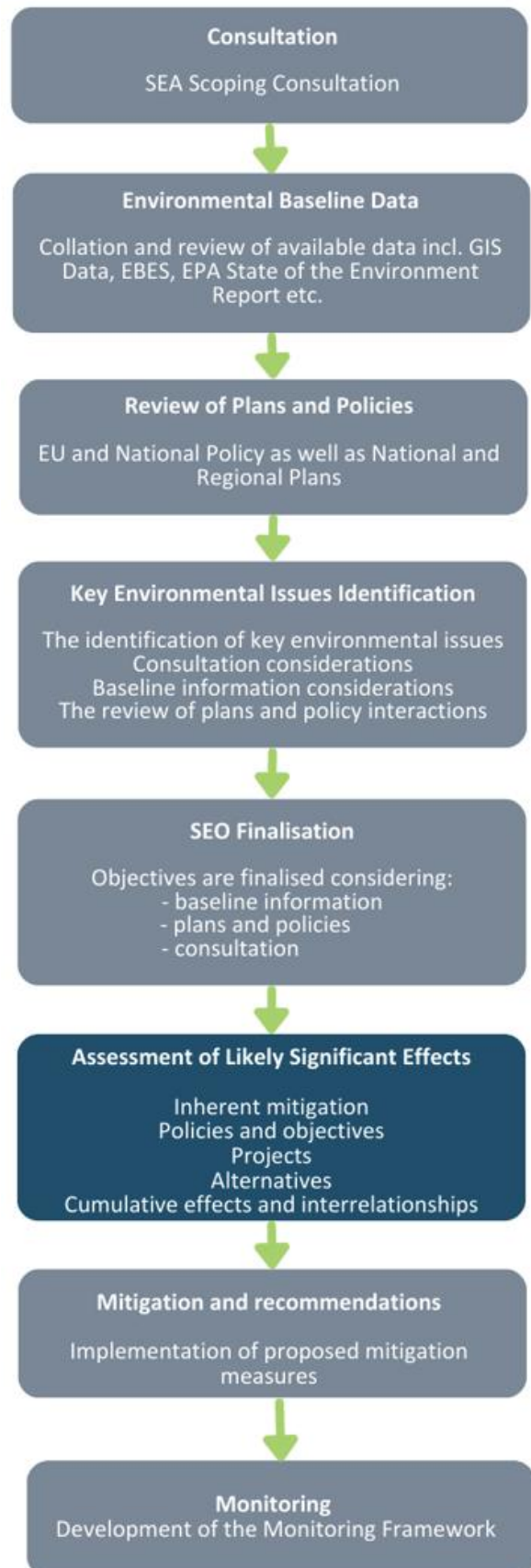
### 11.1 Introduction

The relevant aspects of the current state of the environment (see Section 6. ) and the Strategic Environmental Objectives (see Section 9. And Table 9-1) are used in the evaluation of alternatives.

The provisions are evaluated using compatibility criteria (see Table 10-1) in order to determine how they would be likely to affect the status of the SEOs. The SEOs and the Plan provisions are arrayed against each other to identify which interactions - if any - would cause effects on specific components of the environment. Where the appraisal identifies a likely conflict with the status of an SEO the relevant SEO code is entered into the conflict column - e.g. B1 which stands for the SEO likely to be affected - in this instance ‘to contribute towards compliance with the Habitats and Birds Directives with regard to the protection of European Sites and Annexed habitats and species <sup>62</sup>’.

The interactions identified are reflective of likely significant environmental effects<sup>63</sup>:

- Interactions that would be likely to improve the status of a particular SEO would be likely to result in a significant positive effect on the environmental component to which the SEO relates.
- Interactions that would potentially conflict with the status of an SEO and would be likely to be mitigated would be likely to result in potential significant negative effects however these effects will be mitigated by measures which have been integrated into the Plan (see Section 9).
- Interactions that would probably conflict with the status of an SEO and would be unlikely to be mitigated would be likely to result in a significant negative effect on the environmental component to which the SEO relates.





The degree to which effects can be determined is limited as the Plan will be implemented through the lower tier environmental assessments and decision making of planning authorities.

This section details the results of the assessment of the plan component (the policies and objectives, and the projects) outlined within the Draft Grid IP against the SEOs. The section also includes an assessment of alternatives to the Draft Grid IP and considers potential high-level effects associated with the potential future grid scenarios. The section outlines the inter-relationships between individual aspects such as between cultural heritage and landscape and the inter-relationships with other plans where these exist. The assessment of potential cumulative effects (i.e., a number of elements contributing to an effect on a common receptor) both in the Draft Grid IP and with other projects is also presented here.

## 11.2 Inherent Mitigation

All plans and projects which arise through the implementation of the Draft Grid IP are subject to a range of statutory processes and procedures – such as compliance with all relevant aspects of the National Planning Framework (where appropriate) – as well as EirGrid processes and procedures. Together these processes will work to avoid in the first instance and mitigate potential environmental effects of development from the Draft Grid IP.

While the applicability of processes and particular measures will be dependent on the nature and scale of each project, examples of typical inherent mitigation (processes and measures that will be implemented where applicable at the different stages of project execution) are set out below. It is important to note that mitigation will also apply to any potential transboundary effects in Northern Ireland, in the same manner that it will be applied for projects within the Republic of Ireland. The assessment of likely significant effects has been undertaken with the assumption that these inherent mitigation measure are and will be in place for development proposed in the Draft Grid IP.

EirGrid has developed an SEA compliance check for the previous monitoring programme which will be refined to facilitate the SEA monitoring as outlined in **Section 12** of this Draft SEA ER. The SEA compliance check will be adapted for each stage of the six-step Framework for Grid development and will be proportionate to the project scale i.e., from projects that are exempted development to SID projects.

EirGrid also has developed an internal process for decisions in relation to exempted development. This requires, in part, a statutory Screening for Appropriate Assessment of any such development, undertaken or managed by EirGrid’s Ecologist. All grid development projects will be subject to the applicable planning and/or consent processes as outlined in **Table 11-1**.

**Table 11-1: Grid Development Planning Process**

	Strategic Infrastructure Development (SID) Planning application	Local Authority Planning application	Statutory Declaration of exempted development	EirGrid in-house sign off for exempted development
Who	An Bord Pleanála	Local Authority	Local Authority	EirGrid
What	Formal Application	Formal Application	Formal Application	Planning/AA report
Planning Content	Planning Act & Regulations	Planning Act & Regulations	Planning Act	Internal Process

Decision	Approval	Permission	Section 5 Declaration	Declaration
Timeline	c.18 weeks +	c. 8 weeks (+4)	c. 4 weeks	c. 2 weeks

Depending on the above planning process route, as a minimum the following will be required:

- Screening for EIA; and
- Screening for AA.

Subject to the screening assessments above the following further assessments may be required:

- Statutory EIA - Environmental Impact Assessment Report (EIAR); and
- AA - NIS.

### 11.2.1 EirGrid In-House Processes and Procedures

#### 11.2.1.1 *Six-Step Framework for Grid Development*

The six step Framework for Grid Development outlined in **Section 2** ensures that environmental considerations are engrained into all aspects of the grid development process. This is a ‘beginning-to-end’ process, from the identification of a need to develop the grid to the eventual construction and operation of a project. This approach integrates the technical development of a project with increased and enhanced engagement with stakeholders, communities and landowners.

EirGrid implements this approach across all grid development projects. Social Impact Assessment: EirGrid are committed to undertaking social impact assessment for major transmission infrastructure developments and in accordance with EirGrid’s methodology for Social Impact Assessment.

#### 11.2.1.2 *Environmental Considerations Report (to support planning)*

In the absence of the requirement for EIAR EirGrid undertake a project level environmental assessment of the potential impacts of that project. This assessment is scoped and adapted to the scale of the individual project. This process is documented through an Environmental Considerations Report and this accompanies the planning application of the proposed project. The ECR assesses impacts, imposes mitigation (and biodiversity enhancements where relevant), and ensures compliance with relevant environmental legislation.

#### 11.2.1.3 *Draft Grid IP Policies and Objectives*

As part of the Draft Grid IP, EirGrid have developed a series of policies and objectives for future grid development. All projects outlined within the Draft Grid IP will be subject to the requirement of these policies and objectives going forward. More details of these policies and objectives and their likely significant effects are provided in **Section 11.3.1**.

#### 11.2.1.4 *EirGrid Consultation processes and procedures*

The six step Framework for Grid Development provides opportunities for consultation and engagement

before the final decisions are made on the project location, technology and route. In addition, EirGrid has been active in preparing a number of processes to implement the 12 commitments to consultation including:

- An Engagement Handbook – confirming our commitments to engaging the public and communities;
- An Engagement Toolkit – the various methods we use when consulting.

#### 11.2.1.5 *EirGrid Guideline Documents*

EirGrid has developed a series of guideline documents which aim to ensure a standard approach to environmental assessment of high voltage transmission projects and the development of these guidelines was informed by the EBES as outlined in **Section 6.14**.

#### **EMF and You (Public Guide)**

The '*EMF & You*' public information guide was produced to give an overview of the electricity transmission system and associated electric and magnetic fields (EMF) in Ireland. The main aim of the guide is to provide the public with factual information on EMF, in relation to both underground and overhead grid development.

EirGrid's position on EMF and health is built on the conclusions and recommendations of established national and international health and scientific agencies that have reviewed the main body of scientific research on the topic. These agencies have concluded that the research consistently indicates that EMF does not cause any adverse health effects at the levels encountered in our environment, and that compliance with standards set out by the International Commission on Non-Ionizing Radiation Protection (ICNIRP) provides sufficient protection to public health.

The guide addresses the main questions raised by the public in relation to EMF by providing an understanding of EMF, the studies that have been carried out and discussing human health and national/international guidance on exposure. The guide also addresses questions related to exposure of animals to EMF and whether special precautions against EMF are required.

The guide recognises that public concerns remain about health impacts in relation to EMF and highlights the commitment that EirGrid has made to address these concerns through the continued:

- design and operation of the transmission system in accordance with the ICNIRP EMF guidelines, as reviewed by the WHO and endorsed by the EU and Irish Government;
- monitoring of engineering and scientific research in the area of EMF; and
- provision of information and reassurance to the public and staff on the issue.

#### **Ecology Guidelines (Project Development Guide)**

The purpose of the Ecology Guidelines for grid development projects is to:

- enable enhancement of biodiversity on suitable projects
- provide best practice guidance and a systematic approach for ecological impact assessment (EclA) of grid development projects; and
- provide best practice guidance on ecological topics of particular relevance to grid development projects including:

- risk of collision by birds with high voltage overhead power lines; and
- impacts of electricity transmission projects on sensitive habitats, most notably wetlands, peatlands and watercourses.

The main aim of the guidelines is to standardise the approach to EclA of grid development projects and associated infrastructure and to provide a higher level of consistency. These guidelines have been informed by the review of Environmental Impact Statements (EIS) and Environmental Reports which have previously been prepared for grid development projects, published international and national best practice and legal obligations in relation to protected flora, fauna and habitats.

The guidelines are divided into two sections.

- Part I introduces ecological impact assessment and its role in EIA and the planning process for grid development projects. This section describes the major components of the natural environment and the potential impacts of grid development projects on ecology.
- Part II provides comprehensive technical guidance for the ecological assessment at the various stages of the planning and design processes for grid development projects. This section also provides recommendations for monitoring the effectiveness of proposed mitigation measures, following construction. Recommendations are also provided to support the development of environmental management plans.

EirGrid are committed to regularly update these Ecology Guidelines for Transmission Projects, to align with technical guidance which is regularly provided to EirGrid's lead environmental consultants.

### **Cultural Heritage Guidelines (Project Development Guide)**

The purpose of the Cultural Heritage Guidelines for grid development projects are to:

- standardise the approach for all cultural heritage impact assessment during the planning process; and
- assist with the formulation of a consistent, best practice approach to cultural heritage at all stages of grid development projects.

These guidelines are based on national and international best practice guidance and legal requirements relating to the identification, protection and avoidance of heritage assets.

#### **11.2.2 Best Practice during Construction**

Construction mitigation for all grid development projects shall include, but not be limited to, the following best practice guidance:

- Construction Industry Research and Information Association (CIRIA) 'Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors' (CIRIA, 2001);
- CIRIA C648: Control of water pollution from linear construction projects: Technical guidance (Murnane et al. 2006);
- CIRIA C649 Control of Water Pollution from Linear Construction Projects: Site Guide (Murnane et al. 2006);
- Inland Fisheries Board Guidance Document (formerly developed by Eastern Fisheries Board)

“Requirements for the protection of fisheries habitat during Construction and development works at river Sites”;

- UK Environment Agency: Pollution Prevention Guidelines; and
- BS 5228: Part 1 and the European Communities (Noise Emission by Equipment for Use Outdoors) Regulations, 2001.

### 11.3 Draft Grid IP Assessment

The assessment is based on the methodology set out in **Section 10.** of this report and has taken account of the inherent mitigation set out above in **Section 11.2.** In summary, the matrices in the tables contain an evaluation of each of the policies and objectives or the projects against each of the SEOs; a plus (+) indicates potential positive impact, a minus (-) indicates a potential negative impact, plus/minus (+/-) or vice versa indicates that both positive and negative effects are likely, a question mark (?) indicates that the impact is unknown and a neutral or no impact is indicated by an Asterix (\*). A table key is provided below for ease of reference.

SEO Code	Environmental Component	Strategic Environmental Objective
<b>O1</b>	Overall	<b>O1:</b> Ensure, where appropriate, that lower level plans and projects implement SEA mitigation and policies and contribute to overall environmental monitoring processes within EirGrid .
<b>PHH1</b>	Population, Human Health & the Economy	<b>PHH1:</b> Minimise the proximity of development to concentrations of population in order to reduce actual and/or perceived environmental effects.
<b>B1</b>	Biodiversity, Flora & Fauna	<b>B1:</b> Ensure compliance with Habitats and Birds Directives with regard to protection of European Sites and Annexed habitats and species <sup>76</sup> .
<b>B2</b>		<b>B2:</b> Support Article 10 of the Habitats Directive with regard to the management of features of the landscape which - by virtue of their linear and continuous structure or their function as stepping stones (designated or not) - are of major importance for wild fauna and flora and essential for the migration, dispersal and genetic exchange of wild species.
<b>B3</b>		<b>B1:</b> Ensure compliance with Habitats and Birds Directives with regard to protection of European Sites and Annexed habitats and species <sup>77</sup> .
<b>B4</b>		<b>B4:</b> Go beyond biodiversity protection to deliver biodiversity enhancement, wherever possible, in response to the biodiversity emergency
<b>L1</b>	Landscape, Seascape & Visual Amenity	<b>L1:</b> Avoid or, minimise impacts to statutory landscape and seascape designations, including those in the land use plans of planning authorities.
<b>L2</b>		<b>L2:</b> Avoid or minimise adverse visual effects on sensitive receptors.
<b>CH1</b>	Cultural Heritage - Archaeology &	<b>CH1:</b> Avoid impacts upon archaeological heritage sites

<sup>76</sup> ‘Annexed habitats and species’ refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

<sup>77</sup> ‘Annexed habitats and species’ refer to those listed under Annex I, II & IV of the EU Habitats Directive and Annex I of the EU Birds Directive.

SEO Code	Environmental Component	Strategic Environmental Objective
	Architectural	
<b>GSL1</b>	Geology and Soils	<b>GSL1:</b> Avoid or minimise effects on mineral resources or soils.
<b>LU1</b>	Land use	<b>GSL1:</b> Avoid or minimise effects on mineral resources or soils.
<b>W1</b>	Water	<b>LU1:</b> Avoid or minimise effects on existing land and marine use.
<b>W2</b>		<b>W1:</b> Maintain and/or improve, the quality and status of surface waters, including supporting for the objectives for the Draft Third Cycle River Basin Management Plan (2022-2027) where relevant and appropriate
<b>W3</b>		<b>W2:</b> Maintain and/or improve, the chemical and quantitative status of groundwaters.
<b>W4</b>		<b>W3:</b> Prevent impact upon the WFD status of surface waters and groundwater in line with the requirements of the WFD.
<b>MAI1</b>	Material Assets & Infrastructure	<b>MAI1:</b> Avoid or minimise effects on built/amenity assets and infrastructure.
<b>MAI2</b>		<b>MAI2:</b> Avoid or minimise effects on effects upon existing and (where known) planned infrastructure.
<b>TR1</b>	Tourism & Recreation	<b>MAI2:</b> Avoid or minimise effects on effects upon existing and (where known) planned infrastructure.
<b>CF1</b>	Climate Change	<b>TR1:</b> Avoid, or minimise effects upon tourism and recreation amenities.

Revise Description of Effect	Effect
Likely to have a positive effect	+
Likely to have a negative effect	-
Effects are uncertain/there is insufficient information on which to determine effect	?
Likely to have a neutral effect	*
Likely to have a mixed positive & negative effect	+/-
Likely to have a mixed negative & positive effect	-/+

**Table 11-2 Criteria for appraising the effect of Plan provisions on SEOs**

Likely to <b>Improve</b> status of SEOs	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	Probable <b>Conflict</b> with status of SEOs- unlikely to be mitigated	<b>No Likely</b> interaction with status of SEOs
---	---	--	--

### 11.3.1 Assessment of Objectives and Policies

Table 11-3 to Table 11-5 outlines the assessment of the Draft Grid IP policies and objectives with regard to both positive and negative likely significant effects. All likely significant effects are considered long term unless otherwise stated.

**Table 11-3: Policy Assessment**

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment
ENVP1:	To uphold best environmental practice in the design and appraisal of onshore and offshore grid development, considering impacts onshore, offshore, cumulatively and across state boundaries where relevant.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. By applying best practice in the design and appraisal of TDPs this policy will have a positive effect on the receptors associated with the SEOs as it will allow in the first instance avoidance of significant effects and appropriate routing/option development having regard to environmental considerations.
ENVP2	To continually improve EirGrid’s approach to the protection of the onshore and marine environment from development impacts, by applying the findings from monitoring at plan and project level to improve existing processes and fund and resource new processes where required.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. The continued development of EirGrid 's approach to the environment should have a positive effect on the receptors associated with the SEOs similar to ENVP1.

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment
ENVP3	To apply a strategic / programmatic approach to onshore and offshore grid development to optimise environmental assessment and public engagement at a regional / landscape scale. Through programmatic approaches, reduce timescales and resources, and increase project delivery rate to achieve the 2030 targets of up to 80% electricity from renewable sources.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. This policy will ensure alignment with the strategic environmental goals and relevant environmental processes are integrated into the development of the grid network.
ENVP4	To require the use of sustainable urban drainage systems in all new grid developments where appropriate.	*	*	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	*	*	No significant negative effect anticipated. This policy is likely to support the protection of water quality – and habitats/ecosystems/species which are sensitive to hydrological interactions.
ENVP5	To have regard to the statutory guidelines on the Planning System and Flood Risk Management, as may be revised/updated when devising grid development projects, and in the preparation of grid development strategies and	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	*	*	No significant negative effect anticipated. This policy is likely to support the protection of water quality – and habitats/ecosystems/species which are sensitive to hydrological interactions. This policy will also protect against unintended flooding



No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment
	plans.																				issues for local economies.
ENVP6	To seek to preserve and maintain air quality in accordance with good practice and relevant legislation in the construction of grid development projects onshore, and offshore	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	+	No significant negative effect anticipated. This policy is likely to support the protection of air quality which will have beneficial effects on water quality – and habitats/ecosystems/species which are sensitive to hydrological interactions. This policy will reduce impacts to air quality.
ENVP7	To facilitate new technologies which minimise noise emissions on onshore and offshore grid development	*	+	+	+	+	+	*	*	*	*	*	*	*	*	*	*	*	+	*	No significant negative effect anticipated. This policy is likely to support avoidance or reduction of noise impacts which will have beneficial effects on the avoidance of disturbance effects to sensitive species. This policy will reduce noise impacts.
ENVP8	To seek to preserve and maintain noise quality (including underwater noise) in accordance with good practice and relevant legislation.	*	+	+	+	+	+	*	*	*	*	*	*	*	*	*	*	*	+	*	No significant negative effect anticipated. This policy is likely to support avoidance or reduction of noise impacts which will have beneficial effects on the avoidance of disturbance effects to sensitive species. This policy will reduce noise impacts.

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment
ENVP9	To have regard to the objectives of the National Landscape Strategy and the Regional Seascape Character Assessment in onshore and offshore grid development projects, to protect landscapes and seascapes from grid development.	*	*	*	*	*	*	+	+	*	*	*	*	*	*	*	*	*	+	*	No significant negative effect anticipated. This policy is likely to support avoidance or reduction of landscape and seascape impacts which will have beneficial effects on the avoidance of impacts to tourism. This policy will reduce landscape and seascape impacts.
ENVP10	To ensure appropriate dust suppression during construction works.	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	*	No significant negative effect anticipated. This policy is likely to support avoidance or reduction of dust during construction impacts which will have beneficial effects on water quality and biodiversity by extension; which will in turn be beneficial for tourism. This policy will reduce dust during construction impacts.
ENVP11	To minimise impacts on surface, ground, and marine water quality and support achieving objectives of the Marine Strategy Framework Directive and Water Framework Directive	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	*	No significant negative effect anticipated. This policy is likely to support the protection of water quality – and habitats/ecosystems/species which are sensitive to hydrological interactions. This policy will also provide benefits to tourism in terms of natura based tourism products being protected.

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment
ENVP1 2	To deliver projects while ensuring natural resources in coastal and marine waters are exploited in a sustainable manner so that biodiversity is maintained or achieved and that European regional seas are clean, healthy and productive	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	*	No significant negative effect anticipated. This policy is likely to support the protection of water quality – and habitats/ecosystems/species which are sensitive to hydrological interactions. This policy will also provide benefits to tourism in terms of natura based tourism products being protected.
BIODP1	To protect flora, fauna and habitats, and sites designated in the Habitats Directive, the Birds Directive, the Wildlife Act 1976 (as amended), the Flora Protection Order (S.I. no. 235 of 2022), and the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended)	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	+	No significant negative effect anticipated. This policy is likely to support the protection of biodiversity – and habitats/ecosystems/species which are sensitive to impacts from plan provisions such as infrastructure development. This policy will reduce impacts to biodiversity. These will also improve human induced benefits from biodiversity, improvements to water quality, air quality and climate by association as well as improvements to tourism offerings in terms of nature based tourism products.

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment
BIODP2	To minimise the impact of grid development on existing trees and hedgerows, and all semi-natural habitats	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	+	No significant negative effect anticipated. This policy is likely to support the protection of biodiversity – and habitats/ecosystems/species which are sensitive to impacts from plan provisions such as infrastructure development. This policy will reduce impacts to biodiversity. These will also improve human induced benefits from biodiversity, improvements to water quality, air quality and climate by association as well as improvements to tourism offerings in terms of nature based tourism products.
BIODP3	To protect and wherever possible enhance wooded, wetland and other habitats which function as wildlife corridors, in accordance with Article 10 of the EU Habitats Directive.	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	+	No significant negative effect anticipated. This policy is likely to support the protection of biodiversity – and habitats/ecosystems/species which are sensitive to impacts from plan provisions such as infrastructure development. This policy will reduce impacts to biodiversity. These will also improve human induced benefits from biodiversity, improvements to water quality, air quality and climate by association as

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment
																					well as improvements to tourism offerings in terms of nature based tourism products.
<b>BIODP4</b>	To design habitat creation, restoration and enhancement into project scopes wherever possible, in collaboration with ESB for onshore assets, while complying with relevant technical and safety standards.	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	+	No significant negative effect anticipated. This policy is likely to support the protection of biodiversity – and habitats/ecosystems/species which are sensitive to impacts from plan provisions such as infrastructure development. This policy will reduce impacts to biodiversity. These will also improve human induced benefits from biodiversity, improvements to water quality, air quality and climate by association as well as improvements to tourism offerings in terms of nature based tourism products.
<b>CLIMP1</b>	To integrate measures to address climate change into grid development, through effective mitigation and adaptation responses, in accordance with available guidance and best practice.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	+	+	This policy is likely to support climate action and reduce impacts to climate factors. Climate action can have unintended adverse impacts on biodiversity if not considered or implemented correctly. Therefore, there is potential conflict with status of SEOs related to biodiversity however,

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment	
																						these are likely to be mitigated by the other policies which must also be complied with. This policy will reduce climate impacts.
CLIMP2	To support, through all activities, and in particular connection of low-carbon and renewable energy generation onshore and offshore, delivery of the Government’s target of up to 80% electricity consumption generated from renewable energy sources by the year 2030.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	+	+	This policy is likely to support climate action and reduce impacts to climate factors. Climate action can have unintended adverse impacts on biodiversity if not considered or implemented correctly. Therefore, there is potential conflict with status of SEOs related to biodiversity however, these are likely to be mitigated by the other policies which must also be complied with. This policy will reduce climate impacts.
CLIMP3	That there is no increase in flood risk as a result of grid development, and to ensure any flood risk to the development is appropriately managed.	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	*	*	No significant negative effect anticipated. This policy is likely to support the protection of water quality – and habitats/ecosystems/species which are sensitive to hydrological interactions. This policy will also protect against unintended flooding issues for local economies.	

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment
CULTP1	To conserve and protect designated and undesignated architectural assets and their settings (onshore) and archaeological heritage (onshore and offshore)	*	*	*	*	*	*	*	*	+	*	*	*	*	*	*	*	*	+	*	No significant negative effect anticipated. This policy is likely to support the protection of architectural assets and archaeological heritage which will also have positive implications for cultural heritage tourism.
CULTP2	To protect known and unknown (potential) archaeological material in grid development, by avoidance, best practice mitigation measures, and by process improvements identified from review of project level environmental monitoring reports	*	*	*	*	*	*	*	*	+	*	*	*	*	*	*	*	*	+	*	No significant negative effect anticipated. This policy is likely to support the protection of architectural assets and archaeological heritage which will also have positive implications for cultural heritage tourism.
TP1:	To promote and facilitate the sustainable development of a high-quality transmission grid to serve the existing and future needs of the country, in accordance with EirGrid's Grid Development Strategy, and the Shaping Our Electricity Future Transmission Network Analysis	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	Sustainable development can have a variable meaning – therefore it is not clear if this will have positive impacts on all of the SEOs. However, all other policies and objectives must be implemented alongside this policy. Thus, any potential adverse impacts are likely to be mitigated by the other policies & objectives.
TP2:	To consider all practical technology options in the development of its projects,	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	+	+	*	*	No significant negative effect anticipated. Improvements to technology options and maximizing

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment
	including maximising use of the existing grid.																				the existing grid is likely to have positive impacts on the existing material assets.
TP3:	To continue to be proactive in the development of emerging or innovative technical solutions for the development of the transmission grid.	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	Emerging technologies are currently not known and therefore there could be unintended consequences on the environmental themes if implemented incorrectly. However, all other policies and objectives must be implemented alongside this policy. Thus, any potential adverse impacts are likely to be mitigated by the other policies & objectives.
TP4:	To effectively manage oversupply by utilising Demand Flexibility in order to promote renewable generation	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	+	No significant negative effect anticipated. The emphasis on renewable generation is likely to support the SEO related to climate action.
TP5:	To ensure EirGrid and ESB Networks develop and implement an end-to-end TSO/TAO joint approach to optimise delivery of onshore and offshore grid infrastructure projects.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	No significant negative effect anticipated. This policy relates to general operations and ownership of grid infrastructure the logistics of which are not likely to interact with the SEOs.
TP6:	To promote Security of Supply in order to maximise access to generation and promote future interconnections with	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	No significant negative effect anticipated. This policy does not provide for infrastructure or project development but to promote



No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment
	neighbouring countries																				security of supply, therefore it is not likely to interact with the SEOs.
<b>PDP1:</b>	To have regard to EirGrid’s approach to developing the grid, and any associated guidelines, consenting precedents, policies and processes, to ensure the structured, consistent development of all its grid development projects.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. By applying best practice in the design and appraisal of TDPs this policy will have a positive effect on the receptors associated with the SEOs as it will allow in the first instance avoidance of significant effects and appropriate routing/option development having regard to environmental considerations.
<b>PDP2:</b>	To promote sustainable grid development by balancing complex and/or competing technical, economic, environmental, social and deliverability goals and priorities in decision-making.	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	+	No significant negative effect anticipated. The policy will promote sustainable development including economic, social and environmental considerations. These considerations will also take account of all other policies and objectives.
<b>PDP3:</b>	To continue to build staffing capacity to adequately resource onshore and offshore grid development and operation, across engineering, environmental, project management, administrative,	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. This policy relates to administrative capacity.

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment	
	legal and human resources																					
PCP1:	To comply with relevant legislation and have regard for relevant guidelines in planning and consenting of grid development projects, and make provision for any policies for the provision of grid development set out in these documents. In particular, to have regard to the National Spatial Strategy, National Planning Framework, Offshore Renewable Energy Development Plans, RSES, and Regional Spatial and Economic Strategies.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. Compliance with regulations and legislation will have a positive effect on the receptors associated with the SEOs as it will allow in the first instance avoidance of significant effects and appropriate routing/option development having regard to environmental considerations.
PCP2:	To have regard to precedent arising from decisions of the Competent Authorities, and of the High Court in Judicial Review of decisions, relating to the planning and consenting of grid development projects.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. Compliance with emerging case law will have a positive effect on the receptors associated with the SEOs as it will allow in the first instance avoidance of significant effects and appropriate routing/option development having regard to environmental considerations.
PCP3:	To promote sustainable grid development by balancing complex and/or competing	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	+	+	No significant negative effect anticipated. The policy will promote

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment
	technical, economic and environmental goals and priorities in decision-making.																				sustainable development including economic, social and environmental considerations. These considerations will also take account of all other policies and objectives.
PCP4:	To prepare and/or update internal policies and processes related to the planning and consenting of grid development projects, including the existing internal process for Screening of Exempted Development, and Screening for Appropriate Assessment	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	No significant negative effect anticipated. This policy relates to administrative processes surrounding technical assessments.
CEP1:	To consult and engage on grid developments with statutory and non-statutory stakeholders, including communities, landowners and the general public, at the earliest meaningful stage of a project's development. Consultation will be transboundary where relevant, to include governments, statutory nature conservation bodies, and other agencies, including The Northern Ireland Environment Agency for cross-border matters.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. Consultation processes will improve understanding of baseline condition and potential issues related to all SEOs which can then be incorporated into the plan/project where relevant.

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment
CEP2:	To recognise and develop the essential role that communities, landowners and other stakeholders play in grid development , and to engage with different stakeholders as appropriate at all stages of a grid development project, and in plan-making.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. Consultation processes will improve understanding of baseline condition and potential issues related to all SEOs which can then be incorporated into the plan/project where relevant.
CEP3:	To ensure consultation and engagement feedback is appropriately considered in decision making.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. Consultation processes will improve understanding of baseline condition and potential issues related to all SEOs which can then be incorporated into the plan/project where relevant.
CEP4:	To facilitate formal complaints and to resolve such complaints in a timely manner.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. Recording a formalized complaints processes will improve understanding of any conflicts which may arise and potential issues related to all SEOs which can then be incorporated into the plan/project where relevant.
HBS1:	To consider and address social impact and the impact on human beings in the development of grid development projects as appropriate.	*	+	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	No significant negative effect anticipated. This will support the avoidance of impacts to population and human health.
HBSO1:	To examine the social impact	*	+	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	No significant negative effect

No	Policy	O1	PHH 1	B1	B2	B3	B4	L1	L2	CH1	GSL1	LU1	W1	W2	W3	W4	MAI 1	MAI 2	TR1	CF1	Comment	
	of grid development s on the receiving environment as appropriate and in accordance with EirGrid’s methodology for Social Impact Assessment.																				anticipated. This will support the avoidance of impacts to population and human health.	
HBSO2:	To ensure that all grid development projects are screened for the requirement for a Social Impact Assessment, and where so required, that such Assessment will accompany an application for statutory consent.	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	No significant negative effect anticipated. This will support the avoidance of impacts to population and human health.	
HBSO3:	To promote and deliver EirGrids Community Benefit Policy and Proximity Payments for certain categories of grid development projects, in accordance with established terms of reference.	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	*	No significant negative effect anticipated. This will support the enhancement of communities – including natural assets and associated waterways, which in turn could support tourism in these areas.	
HBSO4:	To assess and mitigate wherever possible the potential impact upon tourism in the development of grid development projects onshore and offshore, particularly on natural and unspoilt attractions with identified tourism potential	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	+	*	No significant negative effect anticipated. This will support the avoidance of impacts to tourism.

**Table 11-4: Objectives Assessment**

No	Objective	O1	PH H1	B1	B2	B3	B4	L1	L2	CH1	GSL 1	LU1	W1	W2	W3	W4	MA I1	MA I2	TR1	CF1	Comment	
ENVO1	To ensure that grid development projects onshore and offshore follow standard approaches to environmental assessment of grid development projects including EirGrid topic specific guidelines on Electromagnetic Fields (EMF), Cultural Heritage, and Ecology and international best practice.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. The EirGrid environmental Guidelines are based on the EBES which looked at the actual effects of transmission development. The use of these best proactive guidelines for future development will help to reduce the potential negative effect on many SEO receptors.
ENVO2	To continue to prepare and/or update EirGrid evidence-based environmental guidelines, to integrate updated evidence or assess new types of development including offshore	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. Ongoing work on the EBES will increase the understanding of the impact from transmission development projects and help to inform best practice and thus decrease potential impact on many of the SEO receptors going forward. These studies can also contribute to the implementation of adaptive mitigation where existing infrastructure is found to be having a negative effect.

No	Objective	O1	PH H1	B1	B2	B3	B4	L1	L2	CH1	GSL 1	LU1	W1	W2	W3	W4	MA I1	MA I2	TR1	CF1	Comment
ENVO3	To develop the environment space on the EirGrid website as a tool for sharing information on EirGrid's impacts on and actions for the environment.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. The development of the EirGrid environmental information portal will help to reduce the perceived environmental effects with increased information sharing therefore a potential positive effect on each of the SEOs on foot of the other policies which integrate learnings and collaboration.
ENVO4	To have regard to any future National Landscape and/or Seascape Character Assessment in the development of its grid development projects.	*	*	*	*	*	*	+	+	*	*	*	*	*	*	*	*	*	+	*	No significant negative effect anticipated. This policy is likely to support avoidance or reduction of landscape and seascape impacts which will have beneficial effects on the avoidance of impacts to tourism. This policy will reduce landscape and seascape impacts.
ENVO5	That all grid development proposals, and in particular, transmission substation developments, shall carry out, to an appropriate level of detail, a site-specific Flood Risk Assessment that shall demonstrate compliance with all current Guidelines, standards and best practice. The Flood Risk	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. Ongoing work on the EBES will increase the understanding of the impact from transmission development projects and help to inform best practice and thus decrease potential impact on many of the SEO receptors going forward. These studies can also contribute to the implementation of adaptive mitigation where existing infrastructure is found to be having a negative effect.

No	Objective	O1	PH H1	B1	B2	B3	B4	L1	L2	CH1	GSL 1	LU1	W1	W2	W3	W4	MA I1	MA I2	TR1	CF1	Comment	
	Assessment shall pay particular emphasis to residual flood risks, site-specific mitigation measures, flood-resilient design and construction, and any necessary management measures.																					
ENVO6	To identify the nature of tourism in a project area; to consider the cumulative / in combination impact on tourism of a project and to consider short term and long term impacts of grid development projects on tourism as appropriate.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	+	*	No significant negative effect anticipated. This objective will reduce the risks associated with potential impacts to tourism offerings.
ENVO7	That development of new transmission substations will not occur on sites which are below estimated flood levels for CFRAM Zone A or Zone B, without the relevant justification test	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	No significant negative effect anticipated. This objectives ensures justification tests are undertaken for transmission development related to CFRAMs. Other policies ensure no potential effects to water quality etc. will be permitted under the plan.



No	Objective	O1	PH H1	B1	B2	B3	B4	L1	L2	CH1	GSL 1	LU1	W1	W2	W3	W4	MA I1	MA I2	TR1	CF1	Comment
ENVO8	To continually improve the effectiveness of project level mitigations, and fill knowledge gaps, by reviewing project-level environmental monitoring reports, and identifying any instances of mitigation failure.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. This objective is likely to continuously improve the environmental outcomes of the plan.
ENVO9	To continually improve the effectiveness of plan level mitigations, and fill knowledge gaps, by regularly (where possibly annually) publishing SEA-related monitoring reports, and implementing recommendations for process improvements	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. This objective is likely to continuously improve the environmental outcomes of the plan.
ENVO10	To establish and maintain a Geographic Information System of existing and proposed EirGrid grid development projects onshore and offshore, to assist with the identification of cumulative and transboundary impacts	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. This objective is likely to continuously improve the environmental outcomes of the plan.

No	Objective	O1	PH H1	B1	B2	B3	B4	L1	L2	CH1	GSL 1	LU1	W1	W2	W3	W4	MA I1	MA I2	TR1	CF1	Comment	
ENV011	To insert in project environmental assessments for onshore and offshore projects, new requirements for Contractors to provide written environmental monitoring reports to the EirGrid Planning and Environmental Unit, in addition to any prescribed bodies. This will increase the flow of information back to EirGrid, and between project and plan level assessments	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. This objective is likely to continuously improve the environmental outcomes of the plan. This will improve overall learning objectives and monitoring processes.
ENV012	To ensure that site selection and design of new overground infrastructure onshore and offshore considers views from existing purpose-built tourism facilities, as well as views from touring routes, walking trails, scenic viewing points, and greenways	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	+	*	*	No significant negative effect anticipated. This objective will reduce the risks associated with potential impacts to tourism offerings.

No	Objective	O1	PH H1	B1	B2	B3	B4	L1	L2	CH1	GSL 1	LU1	W1	W2	W3	W4	MA I1	MA I2	TR1	CF1	Comment
BIODO1	That any grid development project, either individually or in combination with other projects, that has the potential to give rise to significant effect on the integrity of any European (Natura) site(s) shall be subject to Appropriate Assessment (AA) in accordance with Article 6 of the EU Habitats Directive.	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	+	No significant negative effect anticipated. This policy is likely to support the protection of biodiversity – and habitats/ecosystems/species which are sensitive to impacts from plan provisions such as infrastructure development. This policy will reduce impacts to biodiversity. These will also improve human induced benefits from biodiversity, improvements to water quality, air quality and climate by association as well as improvements to tourism offerings in terms of nature based tourism products.
BIODO2	To quantify and report losses in habitat area from development and deliver wherever possible, net gain (and if not no net loss) of semi-natural habitats from grid development. Mechanisms will include ecological input to landscape planting so that it functions for biodiversity, enhancement of existing habitats, and as a last	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	+	No significant negative effect anticipated. This policy is likely to support the protection of biodiversity – and habitats/ecosystems/species which are sensitive to impacts from plan provisions such as infrastructure development. This policy will reduce impacts to biodiversity. These will also improve human induced benefits from biodiversity, improvements to water quality, air quality and climate by association as well as improvements to tourism offerings in terms of nature based tourism products.

No	Objective	O1	PH H1	B1	B2	B3	B4	L1	L2	CH1	GSL 1	LU1	W1	W2	W3	W4	MA I1	MA I2	TR1	CF1	Comment	
	resort, off-site habitat compensation.																					
BIODO3	To continue the retrofitting of bird flight diverters on existing overhead lines (where the opportunity arises during line repairs), and seek to establish a citizen science reporting portal for bird strikes to better understand likely high risk lines to birds.	*	*	+	+	+	+	*	*	*	*	*	*	*	*	*	*	*	*	*	*	No significant negative effect anticipated. This policy is likely to support the protection of birds.
BIODO4	To standardize the reporting of residual biodiversity impacts (after mitigation) at a geographic frame of reference, and report on trends in the course of SEA-related monitoring	+	*	+	+	+	+	*	*	*	*	*	*	*	*	*	*	*	*	*	*	No significant negative effect anticipated. This policy is likely to support processes of monitoring and compliance to future proof the development of the grid network in terms of potential impacts to biodiversity.

No	Objective	O1	PH H1	B1	B2	B3	B4	L1	L2	CH1	GSL 1	LU1	W1	W2	W3	W4	MA I1	MA I2	TR1	CF1	Comment	
BIODO5	To establish the submission of ecological records to the National Biodiversity Data Centre as Business-as-Usual, by imposing as a contractual requirement at planning and where relevant operational phases of grid developments onshore and offshore	+	*	+	+	+	+	*	*	*	*	*	*	*	*	*	*	*	*	*	*	No significant negative effect anticipated. This policy is likely to support processes of monitoring and compliance to future proof the development of the grid network in terms of potential impacts to biodiversity.
CLIMO1	To assist towards meeting national and EU climate targets, in particular the Government's Climate Action Plan 2023 (and future plans). Specific to grid development, EirGrid will deliver it's obligations under the Governments Sectoral Climate Change Adaptation Plan (Electricity and Gas Networks) in grid development plans and projects.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	This policy is likely to support climate action and reduce impacts to climate factors. Climate action can have unintended adverse impacts on biodiversity if not considered or implemented correctly. Therefore, there is potential conflict with status of SEOs related to biodiversity however, these are likely to be mitigated by the other policies which must also be complied with. This policy will reduce climate impacts.

No	Objective	O1	PH H1	B1	B2	B3	B4	L1	L2	CH1	GSL 1	LU1	W1	W2	W3	W4	MA I1	MA I2	TR1	CF1	Comment	
CLIMO2	To mitigate the impacts of climate change through policies and processes that reduce energy consumption and energy loss/wastage. EirGrid will meet committed targets to reduce Green House Gas Emmisions under the international Science Based Targets initiative, towards which progress will be reported publicly	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	+	This policy is likely to support climate action and reduce impacts to climate factors. Climate action can have unintended adverse impacts on biodiversity if not considered or implemented correctly. Therefore, there is potential conflict with status of SEOs related to biodiversity however, these are likely to be mitigated by the other policies which must also be complied with. This policy will reduce climate impacts.
CULTO1	To obtain summary archaeological monitoring reports for grid developments onshore and offshore in collaboration with ESB (where relevant), and share summary findings from the Database of Irish Excavation Reports on the EirGrid webpage	*	*	*	*	*	*	*	*	+	*	*	*	*	*	*	*	*	+	*	No significant negative effect anticipated. This policy is likely to support the protection of architectural assets and archaeological heritage which will also have positive implications for cultural heritage tourism.	

No	Objective	O1	PH H1	B1	B2	B3	B4	L1	L2	CH1	GSL 1	LU1	W1	W2	W3	W4	MA I1	MA I2	TR1	CF1	Comment
PDO1	To undertake periodic reviews, as appropriate, of the approach and associated guidelines, policies and processes, to ensure that the approach remains a suitable and sustainable structured approach to the development of grid development projects.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. By applying best practice in the design and appraisal of TDPs this policy will have a positive effect on the receptors associated with the SEOs as it will allow in the first instance avoidance of significant effects and appropriate routing/option development having regard to environmental considerations.
CEO1	To engage with statutory and non-statutory stakeholders in a meaningful manner as set out in the EirGrid Engagement Handbook and Toolkit and via EirGrid's Agricultural Liaison Officers and Community Liaison Officers.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. Consultation processes will improve understanding of baseline condition and potential issues related to all SEOs which can then be incorporated into the plan/project where relevant.

No	Objective	O1	PH H1	B1	B2	B3	B4	L1	L2	CH1	GSL 1	LU1	W1	W2	W3	W4	MA I1	MA I2	TR1	CF1	Comment
CEO2:	To maintain and update as required EirGrid's Complaints procedure.	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	No significant negative effect anticipated. Recording a formalized complaints processes will improve understanding of any conflicts which may arise and potential issues related to all SEOs which can then be incorporated into the plan/project where relevant.
HBSO1	To implement our new Community Benefit policy and fund high quality sustainability, biodiversity, and community projects in areas affected by grid development projects. All projects are aligned with United Nations Sustainable Development Goals, and administered through a Community Forum to ensure they are designed by local communities, for local communities	*	+	+	+	+	+	*	*	*	*	*	+	+	+	+	*	*	+	*	No significant negative effect anticipated. This will support the enhancement of communities – including natural assets and associated waterways, which in turn could support tourism in these areas.



The majority of Draft Grid IP objectives and policies are deemed to have a positive or neutral likely significant effect when assessed against the SEOs. Many of the positive effects from the implementation of these policies and objectives are long term and direct in nature by firstly making provisions to avoid potential effects e.g. BOIDP1 *“To protect flora, fauna and habitats, and sites designated in the Habitats Directive, the Birds Directive, the Wildlife Act 1976 (as amended), the Flora Protection Order (S.I. no. 235 of 2022), and the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended)”* and secondly by making provisions to reduce or mitigate potential effects e.g. PDP1 *“To have regard to EirGrid’s approach to developing the grid, and any associated guidelines, consenting precedents, policies and processes, to ensure the structured, consistent development of all its grid development projects..”*

In some instances, there are indirect long term positive effects on SEO receptors due to inter-relationships with other aspects for example ENVP4 *“To require the use of sustainable urban drainage systems in all new grid developments where appropriate.”* the use of SUDS will have a positive direct effect on W1-4 but also an indirect positive effect on B1-B4 due to the protection of water quality by the use of SUDS and the inter-relationship between these aspects.

It is noted that EirGrid has committed to using existing infrastructure as far as reasonably practical but, by its very nature, the provision of new development (new grid infrastructure) associated with policies such as TP1 – TP6 could potentially have an adverse effect on the receptors associated with the SEOs. However, all future grid development projects will be subject to the inherent mitigation as set out in Section 11.2 and the likely significant effects of these policies are therefore unknown at the project level. The overall aim of these policies however are to prevent adverse effects wherever possible and help towards achieving the government renewable energy target; thus, having a positive effect on CC1.

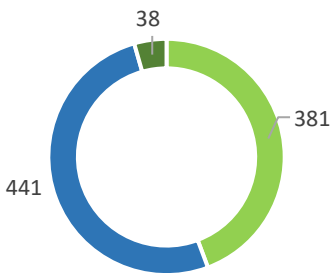
Some policies and objectives have the potential for both positive and negative effects, for example, PDP2 *“To promote sustainable grid development by balancing complex and/or competing technical, economic, environmental, social and deliverability goals and priorities in decision-making”* may have both positive and negative effects as it may not always be possible to provide the least environmental impactful development on the balance with economic and technical goals.

As outlined in Section 6. of this report, the EPA has identified seven key environmental actions for Ireland. EirGrid recognises the importance of these key actions and Table 11-14 outlines which of the Draft Grid IP policies and objectives work to support these seven key actions.

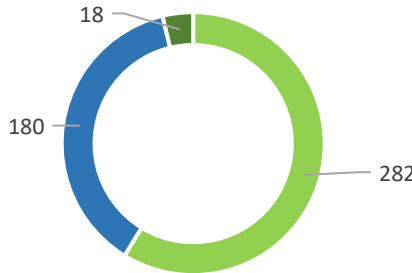
Figure 11-1 provides a visual summary of the assessment of the Draft Grid IP policies and objectives. It can be seen from these figures that overall, the policies and objectives within the Draft Grid IP are positive in nature.

Recommendations and additions to further strengthen these policies and objectives are proposed as part of the SEA Mitigation and are provided in Section 12.3.

**Policy Impact Assessment**



**Objective Impact Assessment**



■ Positive ■ Neutral ■ Unknown

■ Positive ■ Neutral ■ Unknown

**Figure 11-1 Visual summary of the assessment of the Draft Grid IP policies and objectives**



**Table 11-5 Overall assessment of policies and objectives in relation to the SEOs**

	Likely to <b>Improve</b> status of SEOs	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	Probable <b>Conflict</b> with status of SEOs- unlikely to be mitigated	No Likely interaction with status of SEOs
<p><b>Integrated Implementation Plan provisions:</b></p> <p>EirGrid is the national electricity Transmission System Operator (TSO). In its role as TSO in Ireland, EirGrid operates and maintains a safe, secure, reliable, economical and efficient transmission system. EirGrid develops key infrastructural projects - High Voltage (110, 220, 275, and 400 kV) - which are vital for the socio-economic development of the State, with due regard for the environment. The Electricity Supply Board (ESB), as the Transmission Asset Owner (TAO), is charged with constructing the transmission assets as specified by the TSO. ESB also has the role of Distribution System Operator (DSO).</p> <p>The scope of this Draft Grid IP will have three defined aspects due to the development of the sector and evolving role of EirGrid nationally during the lifetime of the forthcoming Draft Grid IP:</p> <p>Onshore development of the grid network;</p> <p>Stakeholder Engagement with developers for phase 1 Offshore development of the grid network:</p> <p>Offshore development for future works of the grid network; and</p> <p>Temporary back-up generation development.</p> <p>It is recognised that the likely environmental envelope of potential effects for each of the 3 aspects will be different given the spatial scope and nature of any associated developments. These three elements or aspects are expanded below where relevant - in the context of EirGrid 's role.</p>	<p><b>Policies:</b></p> <p>ENVP1, ENVP2, ENVP3, ENVP5, ENVP6, ENVP7, ENVP8, ENVP9, ENVP10, ENVP11, ENVP12, BIODP1, BIODP2, BIODP3, BIODP4, PDP2, PCP1, PCP2, PCP3, PCP4, CEP1, CEP2, CEP3, CEP4</p> <p><b>Objectives:</b></p> <p>ENVO1, ENVO2, ENVO3, ENVO4, ENVO5, ENVO7, ENVO8, ENVO9, ENVO10, ENVO11, BIODO1, BIODO2, BIODO3, BIODO4, BIODO5, CULTO1, PDO1, CEO1, CEO2, HBSO1</p>	<p><b>Policies:</b></p> <p>ENVP4, CLIMP1, CLIMP2, CLIMP3, TP1, TP2, TP3, TP4, TP5, TP6, PDP1, PDP3, CEP1, CEP2, CEP3, CEP4, HBSP1, HBSO1, HBSO2, HBSO3, HBSO4</p> <p><b>Objectives:</b></p> <p>ENVO6, ENV012, CLIMO1, CLIMO2, CEO1</p>		
<p><b>SEA Commentary:</b></p> <p><i>The selected alternative – to progress with the revised and updated Draft Grid IP 2023-2027 – introduces strong policies and objectives which provide for various developments and projects which have associated environmental effects. The various types of environmental effects likely to arise with respect to the Draft Grid IP as a direct result of development and activities under the Plan and in combination with the wider planning framework are detailed in Section 8.</i></p> <p><i>However, there are also a number of policies and objectives which provide positive environmental effects such as the Community benefits scheme which provides positive impacts to both the population and human health and biodiversity environmental themes. The coordinated approach to grid development processes are guided by environmentally progressive policies which are likely to improve the overall processes currently undertaken. Furthermore, the Draft Grid IP provides clarity on the approach to be taken in the marine space while also including additional measures for the protection of such. These can be seen in detail in Section 12.</i></p>				

## 11.4 Grid Development under the Draft Grid IP

The Draft Grid IP has reference to the adopted Grid IP 2017-2022, with the projects referenced, based on those outlined in the TDP document and Shaping Irelands Future document. The recommendations, mitigation measures and monitoring measures outlined in Section 12. SEA Recommendations and Section 13. Monitoring Framework of this report have been developed, accounting for those projects and they are integrated into the Draft Grid IP.

It is noted that new projects may arise over the lifetime of the Draft Grid IP. The system of environmental appraisal required for each annual TDP, ensures that a high level of environmental assessment is undertaken annually in line with provisions set out in the Draft Grid IP and associated SEA and AA reports.

The projects outlined within the Draft Grid IP are at various planning stages. The Celtic Interconnector has gone through all relevant consent procedures and is currently at pre-construction phase. This project is likely to be delivered within the lifetime of the Draft Grid IP. It is important to note that all projects which have already been granted consent will not be required to comply with all of the policies and objectives of the Draft Grid IP. However, the Celtic Interconnector will be eligible for the Community Benefit Scheme which will provide incentives for biodiversity enhancement and community engagement. All future plans and projects at various design and consent phases will be subject to compliance with the policies and objectives of the Draft Grid IP.

TEG has been scoped out of the Draft Grid IP and supporting AA and SEA, as EirGrid is neither the developer or future asset owner of any TEG sites, with EirGrids role limited to procurement. Similarly other Consented projects Scoped out of higher level assessment such as CP0970 Cross-Shannon as these have already completed a full suite of statutory environmental assessment processes. Minor projects not yet consented such as all upgrades and refurbs and minor station projects in the TDP have been scoped out of higher level assessment due to their scale and nature.

Projects currently within the planning system<sup>78</sup> which have been scoped in due to the scale and nature include:

- CP0966 Kildare Meath Grid Upgrade;
- CP1190 Poolbeg; and,
- CP1213 Belcamp.

Major Projects not in planning system which have been scoped in due to the scale and nature include:

- CP1021 East Meath to North Dublin (Dublin and Meath)
- Phase 2 South Coast offshore (and onshore grid connection) (Cork and Waterford)
- CP1023 Letterkenny Station Redevelopment (Co. Donegal)
- CP1048 Power Flow Control Scheme (Co. Donegal)
- CP0967 Moneypoint Series Compensation (Site at Knockkyle, Co. Laois)
- CP1196 Arklow / Ballybeg to Carrickmines Upvoltage
- CP1300 Climate Change Adaptation

---

<sup>78</sup> Note that EirGrid is not aware of any potential for conflict between the Draft Grid IP policies, and any future planning conditions, if/when granted However that for the avoidance of any doubt any conditions from planning authorities will take precedence over the draft policies in this Draft Grid IP

- CP0982 Flagford Sligo Capacity Needs
- CP1233 Donegal - Srananagh Corridor

All other projects were subject to a high-level assessment of effects as these projects comprised modifications to, or extensions of existing assets. Due to their relatively small scale or nature prior to the assessment, significant effects to European sites are not identified.



**Table 11-6 Projects considered within the Draft Grid IP of scale relevant to the high level assessment process**

Project Number and Name	Project Type	Project Stage	Discussion of Effects	Relevant Mitigation
CP0966 Kildare Meath Grid Upgrade	Grid Upgrade	Currently within the planning system	<p>This project will be subject to the statutory processes and the EirGrid six step framework. The progression of this project through these processes will facilitate the avoidance of long term significant effects such as habitat loss, effects on SPAs/SACs, effects on the species requiring protection under the Habitats Directive, including European Eel (now an endangered species), effects on residential receptors and effects on cultural heritage and landscape features.</p> <p>There could be construction related impacts in relation to this project including the following:</p> <ul style="list-style-type: none"> <li>• disturbance to species;</li> <li>• disturbance to local residents from construction works i.e. noise or dust emissions;</li> <li>• temporary disturbance to local services; and</li> <li>• potential pollution of nearby watercourse(s).</li> </ul> <p>The project will be subject to the inherent mitigation and in particular the construction best practice and any measures set out during the statutory processes. The adherence to this construction best practice will facilitate the avoidance and reduction of significant effects.</p> <p>Considering the inherent mitigation which the project will be subject to, the potential for significant effects associated with the construction phase or any new infrastructure and land-take requirements are unlikely, but the overall magnitude of impacts remains unknown.</p> <p>The project is likely to facilitate renewable energy connection therefore the likely significant effects on SEO CC1 is positive.</p> <p>Due to the location of this project it is not considered that there is potential for transboundary effects.</p>	<ul style="list-style-type: none"> <li>• ER1</li> <li>• ER2</li> <li>• ER3</li> <li>• ER4</li> <li>• EM2</li> </ul>
CP1190 Poolbeg	Grid Upgrade	Currently within the planning system		
CP1213 Belcamp	Grid Upgrade	Currently within the planning system		
CP1021 East Meath to North Dublin (Dublin and Meath)	Underground Cable Project	Step 5, Best Performing Option Identified, and Planning Application in Preparation		
Phase 2 South Coast offshore (and onshore grid connection) (Cork and Waterford)	Offshore and onshore grid connection	Foreshore Licence Application for Site Investigations under consideration by DHLGH		
CP1023 Letterkenny Station Redevelopment (Co. Donegal)	Station Redevelopment	Step 5, Design Review ongoing to inform Planning Application		
CP1048 Power Flow Control Scheme (Co. Donegal)	Flow Control Scheme	Step 5, Design Review ongoing to inform Planning Application		
CP0967 Moneypoint Series Compensation (Site at Knockkyle, Co. Laois)	New infrastructure at Knockkyle, Co. Laois	Step 5, Draft Planning application prepared		
CP1196 Arklow / Ballybeg to Carrickmines Upvoltage	Upvoltage Project	Step 4, optioneering ongoing		
CP1300 Climate Change Adaptation	Climate Change Adaptation	Step 5, Outline Design in preparation		
CP0982 Flagford Sligo Capacity Needs	Capacity Needs	Step 3, short list of options		

## 11.5 Assessment of Alternatives

A No Plan, no development alternative was initially considered. However, this was not deemed a reasonable alternative, which would allow EirGrid to meet their legal obligations as a TSO nor provide for future development and their role as TSA for the offshore transmission network. and on this basis, was not considered further.

The plan alternatives presented in were identified as potential ways that EirGrid could achieve an appropriate and sustainable approach to the planning and consenting of transmission projects and were assessed on this basis. These where:

No Plan – no new development or upgrading - not considered a reasonable alternative as EirGrid would not comply with obligations and not considered other than for the baseline environment.

- 1) No plan with reliance on the Grid Strategy - so development without the framework of a plan covering targeted policy and objectives;
- 2) Continuation of Previous Plan- Grid 25 Implementation Programme - applying the policies and objectives from the previous plan; and
- 3) Grid Implementation Plan 2017- 2022 - applying new policies and objectives identified in Draft Grid IP published for consultation and amended in response to comments.

These three alternatives include common elements as they are influenced by the overarching Grid Strategy. The focus is therefore on the areas of difference between the three potential approaches. While the plans provide a level guidance and direction for project development, it is noted that alternative options, routes and technologies will be considered in the development of individual schemes.

### 11.5.1 Effects Common to all Alternatives

Significant positive effects likely to occur and potentially significant adverse effects, if unmitigated, that are common to all alternatives are identified on Table 11-7.

**Table 11-7 Effects Common to All Alternatives**

Environmental Component	Significant Positive Effect, likely to occur	Potentially Significant Adverse Environmental Effects, if unmitigated
<b>Population and Human Health</b>	<ul style="list-style-type: none"> <li>• Community engagement is a functional process within EirGrid independent of the specific plan. EirGrid are committed incorporating social issues into the transmission network development process.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential adverse effects arising conflicts with communities and economic activities.</li> </ul>

<b>Biodiversity and Flora and Fauna</b>	<ul style="list-style-type: none"> <li>Existing EBES studies and process used by EirGrid as a measure of best practice are incorporated into the standard processes for Transmission development which benefit ecological features as standard.</li> </ul>	<p>Arising from both construction and operation of development and associated infrastructure:</p> <ul style="list-style-type: none"> <li>Loss of/damage to biodiversity in designated sites (including European Sites and Wildlife Sites) and Annexed habitats and species, listed species, ecological connectivity and non- designated habitats; and disturbance to biodiversity and flora and fauna;</li> <li>Habitat loss, fragmentation and deterioration, including patch size and edge effects; and</li> <li>Disturbance (e.g. due to noise and lighting along transport corridors) and displacement of protected species such as birds and bats.</li> </ul>
<b>Landscape, Seascape and Visual Amenity</b>	<ul style="list-style-type: none"> <li>N/A</li> </ul> <p>One plan alternative is to have no plan – which is unrestrained and therefore it is not known if there are likely positive effects common to all three alternatives.</p>	<ul style="list-style-type: none"> <li>Occurrence of adverse visual impacts and conflicts with the appropriate protection of designations relating to the landscape.</li> </ul>
<b>Geology and Soils</b>	<ul style="list-style-type: none"> <li>N/A</li> </ul> <p>One plan alternative is to have no plan – which is unrestrained and therefore it is not known if there are likely positive effects common to all three alternatives.</p>	<ul style="list-style-type: none"> <li>Potential adverse effects on the hydrogeological and ecological function of the soil resource, including as a result of development on contaminated lands.</li> <li>Potential for riverbank and coastal erosion.</li> <li>Potential effects on protected and unknown archaeology and protected architecture arising from construction and operation activities.</li> </ul>
<b>Land Use</b>	<ul style="list-style-type: none"> <li>N/A</li> </ul> <p>One plan alternative is to have no plan – which is unrestrained and therefore it is not known if there are likely positive effects common to all three alternatives.</p>	<ul style="list-style-type: none"> <li>Potential changes to land use based on grid development projects.</li> </ul>
<b>Air Quality and Noise</b>	<ul style="list-style-type: none"> <li>N/A</li> </ul> <p>One plan alternative is to have no plan – which is unrestrained and therefore it is not known if there are likely positive effects common to all three alternatives.</p>	<ul style="list-style-type: none"> <li>Potential conflicts between grid emissions, including implications for noise and air quality.</li> </ul>

<b>Water</b>	<ul style="list-style-type: none"> <li>• Contribution towards the protection of water by facilitating development of lands (including those within and adjacent to existing built-up transmission system) that have relatively low levels of environmental sensitivities and are served (or can be more easily served) by infrastructure and services, thereby helping to avoid the need to develop more sensitive, less well-served lands elsewhere in within the transmission network and beyond.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential adverse effects upon the status of water bodies and entries to the WFD Register of Protected Areas (ecological and human value), arising from changes in quality, flow and/or morphology.</li> <li>• Increase in flood risk and associated effects associated with flood events.</li> </ul>
<b>Material Assets</b>	<ul style="list-style-type: none"> <li>• N/A</li> <li>• One plan alternative is to have no plan – which is unrestrained and therefore it is not known if there are likely positive effects common to all three alternatives.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential impacts upon public assets and infrastructure.</li> <li>• Potential interactions at local level between agricultural waste and soil, water, biodiversity and human health – including site run off as a result of construction phase of transmission projects.</li> </ul>
<b>Tourism and Recreation</b>	<ul style="list-style-type: none"> <li>• N/A</li> <li>• One plan alternative is to have no plan – which is unrestrained and therefore it is not known if there are likely positive effects common to all three alternatives.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential impacts upon tourism assets and infrastructure including natural features and views which could influence destination competitiveness.</li> </ul>
<b>Climatic Factors</b>	<ul style="list-style-type: none"> <li>• Contribution towards climate mitigation and adaptation by facilitating compact developments in line with national and local targets.</li> </ul>	<ul style="list-style-type: none"> <li>• Potential conflict between development under the Plan and aiming to reduce carbon emissions in line with local, national and European environmental objectives.</li> <li>• Potential conflicts between grid emissions, including implications for renewables, and air quality.</li> <li>• Potential conflicts with climate adaptation measures including those relating to flood risk management.</li> </ul>

### 11.5.2 Effects from each of the Alternatives

An overview of the considerations for each plan alternative is provided in Table 11-8 and then a detailed assessment of the policies and objectives from each are presented in Table 11-9.



**Table 11-8 Overview of considerations for each of the plan alternatives**

Alternatives	Considerations
<p>1) No Plan - With reliance on the Grid Development Strategy</p>	<p>In the absence of the Draft Grid IP grid development would still occur but it would not be framed by targeted policies and objectives designed to ensure sustainable grid development.</p> <p>This could result in a more ad hoc approach to grid development and there would be some uncertainty with regards to the achievement of the SEOs. There would be a mixture of positive and negative effects on the SEO's.</p> <p>Any development would be subject to planning/legal processes that would reduce potential environmental effects. However, this alternative does not take account of the environmental policies included in the Draft Grid IP. These would have positive impacts in relation to protecting the environment with respect to future grid development.</p>
<p>2) Continuation of Previous Plan- Grid 25 Implementation Programme</p>	<p>This alternative would involve development of the projects identified in the Draft Grid IP by applying the policies and objectives from the previous plan. Applying the previous plan policies would not take account of:</p> <ul style="list-style-type: none"> <li>• The strengthened policies developed through the SEA process and adopted in the Draft Grid IP.</li> <li>• The progress and commitments made by EirGrid with regard to Community Benefits Scheme and dedication to environmental record gathering.</li> <li>• The role of EirGrid as TSA and TSO within the marine space.</li> <li>• The provisions for emergency generation facilities.</li> <li>• The recommendations and mitigation in the Draft SEA ER for the Draft Grid IP.</li> </ul> <p>The previous plan is recognized to include some policies and objectives for environmental protection and the planning/legal process would provide some basis for reducing environmental adverse effects.</p> <p>However, the development of proposed projects in the absence of updated policies and objectives would likely result in stronger negative effects or more protected project development timeframes.</p>
<p>3) New and updated Grid Implementation Plan incorporating Ireland's Grid Strategy, updated and strengthened environmental policies and objectives and the TDP i.e. 2023-2028 Plan (Preferred Alternative)</p>	<p>The Draft Grid IP outlines the current understanding of the grid development over the next six years. This grid development has been guided by defined and relevant protective policies aimed at meeting EirGrid's legal, planning and licensing obligations.</p> <p>The fact that implementation of the Draft Grid IP would have some adverse impacts is recognized as a negative.</p> <p>However, in general the implementation of the Draft Grid IP in compliance with policies and objectives would likely result in stronger positive effects.</p>



**Table 11-9 Plan Alternatives Assessment**

Alternatives	Likely to <b>Improve</b> status of SEOs	Likely to <b>Improve</b> status of SEOs to a lesser degree	Least Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	Potential <b>Conflict</b> with status of SEOs- likely to be mitigated	Probable <b>Conflict</b> with status of SEOs- unlikely to be mitigated	No Likely interaction with status of SEOs
No Plan - With reliance on the Grid Development Strategy					In the absence of the Draft Grid IP grid development would still occur but it would not be framed by targeted policies and objectives designed to ensure sustainable grid development.	
Continuation of Previous Plan- Grid 25 Implementation Programme		<p><b>Policies:</b>            ENVP1, ENVP2, ENVP3, ENVP4, ENVP5, ENVP6, ENVP7, ENVP8 ENVP9, ENVP10, ENVP11, ENVP12, ENVP13, ENVP16, ENVP17, ENVP18, ENVP19, ENVP20 (MWQ), ENVP21 (MWQ), ENVP22 (GS), PDP2, PCP3</p> <p><b>Objectives:</b>            ENVO1, ENVO2, ENVO3, ENVO4, ENVO5, ENVO6, ENVO7, ENVO8, ENVO9, PDO2</p>		<p><b>Policies:</b>            CEP1, CEP2, CEP3, CEP4, HBSP1, TP1</p> <p><b>Objectives:</b>            CEO1, CEO2, HBSO1, HBSO2, HBSO3, TO1</p>		
New and updated Grid	<p><b>Policies:</b>            ENVP1, ENVP2, ENVP3,</p>		<p><b>Policies:</b>            ENVP4, CLIMP1,</p>			



<p>Implementation Plan incorporating Irelands Grid Strategy, updated and strengthened environmental policies and objectives and the TDP i.e. 2023-2028 Plan (Preferred Alternative)</p>	<p>ENVP5, ENVP6, ENVP7, ENVP8, ENVP9, ENVP10 , ENVP11, ENVP12, BIODP1, BIODP2, BIODP3, BIODP4, PDP2, PCP1, PCP2, PCP3, PCP4, CEP1, CEP2, CEP3, CEP4</p> <p><b>Objectives:</b>          ENVO1, ENVO2, ENVO3, ENVO4, ENVO5, ENVO7, ENVO8, ENVO9, ENVO10, ENV011, BIODO1, BIODO2, BIODO3, BIODO4, BIODO5, CULTO1, PDO1, CEO1, CEO2, HBSO1</p>		<p>CLIMP2, CLIMP3, TP1, TP2, TP3, TP4, TP5, TP6, PDP1, PDP3, CEP1, CEP2, CEP3, CEP4, HBSP1, HBSO1, HBSO2, HBSO3, HBSO4</p> <p><b>Objectives:</b>          ENVO6, ENV012, CLIMO1, CLIMO2, CEO1</p>			
---	--	--	---	--	--	--

Given the nature of the Draft Grid IP many of the differences between the previous and new updated plan relate to the strength of additional protection policies and objectives and also the emphasis on upgrading compared to new build and commitment for consultation and options assessment. A summary of the key differences between Alternative 2 and 3 is set out in Table 11-10 below explaining the preference for selecting the updated Draft Grid IP.

As outlined in Section 4.5, EirGrid have developed a series of possible future scenarios to allow them to better explain what may drive changes to the grid in the future and to facilitate planning for these scenarios. Some considerations in relation to likely effects of these future scenarios are outlined in Table 11-11.

Based on the assessment of the previous Draft Grid IP 2017 – 2022 and the new Draft Grid IP 2023 – 2028, it is considered that bringing the Draft Grid IP 2023 – 2028 forward would be the best option. Draft Grid IP 2023 – 2028 has been built on recommendations in the previous Draft Grid IP. In addition, the new Draft Grid IP does not place as much emphasis on new build and extends to the marine space with clear processes for EirGrid's role as TSO. The new Draft Grid IP includes stronger consultation and engagement strategies and also reflects the updated Grid Strategy as well as stronger environmental monitoring processes. Then the new Draft Grid IP is also more robust in terms of future demand, as it is better positioned to adapt to different scenarios in the future.

**Table 11-10: Reasons for selecting the Draft Grid IP**

Draft Grid IP 2017 – 2022 (Old Version)	Draft Grid IP 2023 – 2028 (New Version)	Preferred Option to Take Forward
A total of 34 new projects have been brought forward in Draft Grid IP 2017 – 2022 including the Celtic Interconnector Project and the Regional Solution, both of which aim to strengthen the electricity grid in Ireland to meet future requirements.	Over 200 projects have been brought forward in Draft Grid IP 2023 – 2028 including the Celtic Interconnector Project and the Regional Solution, both of which aim to strengthen the electricity grid in Ireland to meet future requirements.	Draft Grid IP 2023- 2028 The new projects provide potential for long term customer benefits.
<b>The Framework for Grid Development:</b> The six-step process for all EirGrid grid development projects which integrates the technical development of a project with enhanced engagement (with stakeholders, communities and landowners), environmental assessment and social assessment. It also provides enhanced governance points throughout the process.	The same project development process will be followed. However the SEOs and general environmental protocols incorporated into the updated Draft IP have improved processes.	Draft Grid IP 2023- 2028 with a more robust, detailed and inclusive framework likely to lead to improved project outcomes in relation to the SEOs.

<p><b>Grid Strategy (2017): Irelands Grid Strategy</b></p> <p>This was developed with stakeholders and through public consultation and is based on the three broad strategy statements which differ significantly from the original Grid25 approach.</p> <p>It allows for a more inclusive consultation process with local communities and stakeholders. A new approach to engagement when developing the grid was developed.</p> <p>Consideration has been afforded to all practical technology options. EirGrid are committed to engaging with the public before identifying a preferred technology. This consultation will explain the transmission technology options, and then seek feedback from stakeholders.</p> <p>This will help EirGrid to determine the best transmission technology for future projects and ensure commitment to looking for alternative options that may avoid or reduce the need for new overhead lines.</p> <p>Allows for the continued maximisation of the use of the existing electricity grid with an aim to avoid constructing new lines or cables, where possible. This will be achieved by increasing the capacity of existing infrastructure, or by using new technologies. This strategy lowers costs and ensures that there will be potentially less impact on the environment and on local communities and is reflected in the greater reliance on existing infrastructure upgrading.</p>	<p>The communication processes from the previous grid plan have been further refined and developed based on previous learnings.</p>	<p>Draft Grid IP 2023-2028 provides a framework which can limit environmental effects with the emphasis on use of upgrading and also provide a basis for optimising individual scheme routes and design and technology use to minimise effects taking account of stakeholder views.</p>
<p><b>Development of Energy Scenarios</b></p> <p>The Draft Grid IP 2017- 2022 has examined potential future needs of the grid through developing four energy scenarios. The Draft Grid IP provides a framework to respond to as different scenarios may evolve in the future.</p> <p>This also allows for reviews to be carried out to assess which scenario is developing as the most appropriate for future adaptation.</p>	<p>The new Draft Grid IP can provide a better framework to respond to as different scenarios may evolve in the future.</p> <p>This also allows for reviews to be carried out to assess which scenario is developing as the most appropriate for future adaptation.</p>	<p>Draft Grid IP 2023-2028 provides a framework for coping with a range of different scenarios</p>

**Table 11-11: Considerations for future Scenarios**

Scenario	Description	Considerations
<b>Steady Evolution</b>	Steady improvements in the economy and in technologies which generate electricity result in renewable electricity generation continuing to grow at a steady pace. New consumer technologies help to increase energy efficiency in homes and businesses.	More renewable energy use could contribute to a positive effect on SEO CC1.  There is the potential for more grid development, and this can have a negative effect on achieving the other SEOs. The use of new technologies could reduce the requirement for increased infrastructure or reduce significant effects associated with new infrastructure thus having a neutral or even positive effect on some SEOs.
		Draft Grid IP 2023-2028 is the preferred alternative for responding to this scenario with the approach giving greater scope to consider new technologies and minimising environmental effects.
<b>Slow Change</b>	Slow economic growth and a slow response to renewable policies results in little change in the way electricity is generated. The adoption of new technologies at residential, commercial and electricity generation levels has been slow due to a risk adverse approach. Ireland’s 2030 emission targets are missed under this scenario.	No or slow increase in renewable energy use could mean the 2030 emission targets are missed under this scenario so potential negative effect on SEO CC1.  Anticipated that new grid development projects would be limited under this scenario therefore potential neutral effect on some SEOs.
		Draft Grid IP 2023-2028 is the preferred alternative for responding to this scenario with the framework provided for all new build and upgrading although fewer projects are likely to come forward.
<b>Low Carbon Living</b>	High economic growth encourages the creation and rollout of new technologies for low carbon electricity generation. A strong public demand to reduce GHG emissions, in addition to high carbon prices and incentives for renewables, creates a high level of renewable generation on the grid.	Fast increase in renewable energy uses the 2030 emission targets are met under this scenario so potential positive effect on SEO CC1.  New grid development projects could have a negative effect on other SEOs prior to mitigation.
		Draft Grid IP 2023-2028 is the preferred alternative for responding to this scenario to limit other environmental impacts associated with additional infrastructure required and change in demand.
<b>Customer Action</b>	A strong economy leads to high levels of consumer spending ability. The public wants to reduce greenhouse emissions therefore electricity consumers enthusiastically limit their energy use and generate their own energy. This results in a large number of community led energy projects and a rapid adoption of electric vehicles and heat pumps in the home.	Fast increase in renewable energy uses the 2030 emission targets are met under this scenario so potential positive effect on SEO CC1.  Less need for large scale grid development with community led energy projects could have a positive or neutral effect on other SEOs.
		Draft Grid IP 2023-2028 is the preferred alternative for responding to this scenario with the strengthened commitment to consultation and engagement.

## 11.6 Inter-Relationship and Cumulative Assessment

Cumulative effects are one of the types of effects which have been considered by the assessment of the alternatives. Cumulative effects can be described as the addition of many small impacts to create one larger, more significant, impact.

There are two types of potential cumulative effects that have been considered, namely:

- Potential *intra-Plan* cumulative effects - these arise from the interactions between different types of potential environmental effects resulting from a plan, programme, etc. Where there are elevated levels of environmental sensitivities (such as those identified under Section 6. ), future development could result in environmental conflicts and lead to a deterioration in environmental integrity. The interrelationships between environmental components that help determine these potential effects are identified e.g. interrelationships between: human health and water quality; human health and air quality; human health and flood risk; and ecology and water quality.
- Potential *inter-Plan* cumulative effects - these arise when the effects of the implementation of one plan occur in combination with those of other plans, programmes, developments, etc.

Effects that may arise as a result of implementing the Plan have been mitigated to the extent that the only residual adverse effects likely to occur as a result of implementation of the Plan are those which are identified under.

Other policies, plans and programmes that have been considered by the assessment of effects include those which are detailed under Section 0 (and associated Appendix A “Relationship with Legislation, Plans and Programmes”), Section 6. and Section 7. . Plans and programmes from various sectors will interact with the Plan, including those relating to land use planning. These plans and programmes are subject to their own environmental assessment requirements as relevant. Examples include:

- Land use policy, plans and programmes (e.g. the National Planning Framework, the Eastern and Midland Regional Spatial and Economic Strategy, County Development Plans for All Counties, Local Area Plans within each County);
- Energy policy, plans and programmes (e.g. Ireland’s National Renewable Energy Action Plan 2010, Strategy for Renewable Energy 2012- 2020, Offshore Renewable Energy Development Plan, Draft National Energy and Climate Plan 2021-2030 and the Renewable Electricity Policy and Development Framework);
- Climate related policy, plans and programmes (e.g. the National Policy Position on Climate Action and Low Carbon Development, Low Carbon Development Act 2015 and White Paper Ireland’s Transition to a Low Carbon Energy Future 2015, Climate Action Plan 2019, the National Adaptation Framework 2018 and the Dún Laoghaire-Rathdown County Council’s Climate Change Action Plan 2019-2024);
- Water services, waste management, transport and energy infrastructure plans (e.g. Transport Strategy for the Greater Dublin Area 2016-2035, Greater Dublin Area Cycle Network Plan, Irish Water’s Water Services Strategic Plan and associated Capital Investment Plan and Regional Waste Management Plan); and
- Other environmental protection and management plans (e.g. River Basin Management Plan, emerging Marine Spatial Plan and Flood Risk Management Plan).

Potential cumulative/in combination effects include:

- Contributions towards travel related greenhouse gas and other emissions to air (in combination with plans and programmes from all sectors, including renewable energy generation and land use planning) as a result of facilitating development which must be accompanied by road capacity;
- Facilitation of new development that is accompanied by appropriate levels of water services thereby contributing towards environmental protection;
- Need for and use of water and waste water treatment capacity arising from new developments and associated potential adverse effects;
- Potential cumulative effects upon surface and ground water status as a result of housing, employment, agricultural and forestry – loadings and abstractions;
- Potential cumulative effects (habitat damage, enhancing ecological connectivity, contributing towards sustainable mobility) arising from linear developments, such as those relating to Green Infrastructure, including beyond the Country border;
- Potential cumulative effects on flood risk by, for example, development of greenfield lands or obstruction of flood paths; and
- In combination with plans and programmes from all sectors potential adverse effects on all environmental components arising from all development in greenfield and brownfield areas (e.g. infrastructural, residential, economic, agricultural etc.). The type of these effects is consistent with those described on Table 8.2. These plans and programmes are required to comply with environmental legislation and undergo SEA and AA as relevant comply with environmental legislation while projects are subject to EIA and AA, as relevant.

These effects would have the potential, if unmitigated, if they occurred, to result in changes in the environment within and beyond the national boundary.

All programmes considered are in Appendix A with the key considerations being:

- Ireland's Shaping Our Electricity Future.
- Offshore Renewable Energy Development Plan (ORED II).
- A National Landscape Strategy for Ireland (NLS).
- The Habitats Directive (92/43/EEC).
- The Birds Directive (2009/147/EC).
- Environmental Impact Assessment Directive (2014/52/EU) and associated Irish legislation.
- Ireland 2040 Our Plan - National Planning Framework.
- Transmission Development Plan (TDP).
- Strategic Environmental Directive (2001/42/EC) and associated Irish legislation.
- National Planning Framework (DHLGH)
- Rural Development Programme (DAFM)
- CAP Strategic Plan 2023-2027
- Food Vision 2030
- Agri Food Strategy 2030 (DAFM)
- National Biodiversity Plan (DHLGH)
- National Peatland Strategy (DHLGH)
- SAC Raised Bog Management Plan (DHLGH)



- Climate Action Plan 2023 (DECC)
- Sectoral Climate Change Adaptation Strategies and Low Carbon Roadmaps
- National Mitigation Plan (DECC)
- National Adaptation Framework (DECC)
- National Policy Position on Climate Action and Low Carbon Development (DECC)
- EU Climate Adaptation Strategy 2021
- National Broadband Plan (DECC)
- National Renewable Electricity Policy Framework (DECC)
- Draft Renewable Electricity Spatial Policy Framework (DECC)
- Framework for Alternative Fuel Infrastructure in Transport (DOT)
- Offshore Renewable Energy Development Plan (DECC)
- National Bioenergy Plan (DECC)
- National Forestry Programme/ Forestry Policy Review (DAFM)
- National Landscape Strategy (DHLGH)
- 10 Year Tourism Strategy (Failte Ireland)
- Smarter Transport /Strategic Framework for Integrated Land Transport (DOT)
- National Greenway Strategy (DOT)
- State of the Environment Report (EPA)
- National River Basin Management Plan (DHLGH)
- National Marine Planning Framework (DHLGH)
- Seafood Operation Programme/ Strategic Aquaculture Programme (DAFM)
- Harnessing Our Ocean Wealth (DAFM)
- Capital Investment Programme (Irish Water)
- Draft Water Resources Management Plan (Irish Water)
- National CFRAMS Programme (OPW)

#### 11.6.1 Inter-Relationship between Individual Environmental Components

The SEA Directive requires the Environmental Report to include information on the likely significant effects on the environment, on issues such as biodiversity, fauna, flora, population, human health, soil, water, air, climatic factors, material assets, cultural heritage including architectural and archaeological heritage, landscape and the interrelationship between the above factors. Likely significant effects on environmental components which are identified include those which are interrelated; implementation of the Plan will not affect the interrelationships between these components. The presence of significant interrelationships between environmental components is identified on Table 11-12.

**Table 11-12: Inter-Relationship between Environmental Components**

Inter-relationship Matrix	Population and human health	Biodiversity, flora and fauna	Water	Air Quality and Noise	Cultural heritage	Geology and Soils	Landscape, Seascape and Visual Amenity	Material Assets	Tourism and Recreation
Biodiversity, flora and fauna	✓								
Water	✓	✓							
Air Quality and Noise	✓	✓	✓						
Cultural heritage	✓		✓						
Geology and Soils	✓	✓	✓	✓	✓				
Landscape, Seascape and Visual Amenity	✓	✓	✓	✓	✓	✓			
Material Assets	✓	✓	✓	✓	✓	✓	✓		
Tourism and Recreation	✓	✓	✓	✓	✓	✓	✓	✓	
Climatic factors	✓	✓	✓	✓		✓	✓		

11.6.2 Inter-Relationship with other Plans and Strategies

There is potential for inter-relationship between the Draft Grid IP components and external plans and policy documents. Where required the Draft Grid IP has developed a series of objectives and policies to support these plans as summarised in Table 11-13 and further detailed in Appendix A.

**Table 11-13: Inter-Relationships between the Draft Grid IP and the External Plans (See Appendix A for Full Details)**

Plan or Programme	SEA	Inter-relationship
<b>National Level</b>		
<p>Regional, Spatial and Economic Strategies (RSES) Ireland’s Shaping Our Electricity Future.</p> <p>Offshore Renewable Energy Development Plan (OREDPA II).</p> <p>A National Landscape Strategy for Ireland (NLS).</p> <p>CAP Strategic Plan 2023-2027</p> <p>SAC Raised Bog Management Plan (DHLGH)</p> <p>Climate Action Plan 2023 (DECC)</p> <p>Sectoral Climate Change Adaptation Strategies and Low Carbon Roadmaps</p> <p>National Mitigation Plan (DECC)</p> <p>National Adaptation Framework (DECC)</p> <p>National Policy Position on Climate Action and Low Carbon Development (DECC)</p> <p>EU Climate Adaptation Strategy 2021</p> <p>National Broadband Plan (DECC)</p> <p>National Renewable Electricity Policy Framework (DECC)</p> <p>Draft Renewable Electricity Spatial Policy Framework (DECC)</p> <p>Framework for Alternative Fuel Infrastructure in Transport (DOT)</p> <p>Offshore Renewable Energy Development Plan (DECC)</p> <p>National Bioenergy Plan (DECC)</p> <p>National Forestry Programme/ Forestry Policy Review (DAFM)</p> <p>National Landscape Strategy (DHLGH)</p> <p>10 Year Tourism Strategy (Failte Ireland)</p> <p>Smarter Transport /Strategic Framework for Integrated Land Transport (DOT)</p> <p>National Greenway Strategy (DOT)</p> <p>State of the Environment Report (EPA)</p>	Yes	<p>Each plan focuses on strategic level changes with limited information on specific developments required. Specific developments are typically detailed within county and local area development plans.</p> <p>There is a potential for in-combination effects, due to the pressure of multiple development proposals on electricity supply resources and/or other resources in the country.</p> <p>Upgrading and improving the electrical grid network will contribute toward the objectives of these national plans in terms of future development and growth.</p> <p>Many of the Draft Grid IP policies and objective’s support the requirement of sustainable planning.</p>

Plan or Programme	SEA	Inter-relationship
National Planning Framework (NPF) National River Basin Management Plan (DHLGH) National Marine Planning Framework (DHLGH) Seafood Operation Programme/ Strategic Aquaculture Programme (DAFM) Harnessing Our Ocean Wealth (DAFM) Capital Investment Programme (Irish Water) Draft Water Resources Management Plan (Irish Water) National CFRAMS Programme (OPW) Transmission Development Plan (TDP). Rural Development Programme (DAFM) Food Vision 2030 Agri Food Strategy 2030 (DAFM) National Biodiversity Plan (DHLGH) National Peatland Strategy (DHLGH)	No	
Regional Economic Spatial Strategies	Yes	
A National Landscape Strategy (NLS) for Ireland 2015-2025 County Landscape Character Assessments (LCA)	No (screened out)	There is a potential for effects on landscape features from grid development however, the Draft Grid IP has included for the following objective and policies to avoid significant effect as far as reasonably practical: <ul style="list-style-type: none"> <li>• ENVP11 - To have regard to the objectives of the National Landscape Strategy in its transmission development projects.</li> <li>• ENVP12 - To continue to protect and enhance landscapes and visual amenity through the sustainable planning and design of transmission infrastructure development.</li> <li>• ENVP13 – To seek to avoid and reduce visual impact on residential receptors in the development of transmission projects.</li> <li>• ENVO7 – To have regard to any future National Landscape and/or Seascape Character Assessment in the development of its transmission projects.</li> </ul>
Climate Action Plan 2023	No	The Draft Grid IP aims to contribute toward the promotion and integration of energy produced from renewable energy sources (RES) and climate change. The Draft Grid IP has included for the following policies and objectives: <ul style="list-style-type: none"> <li>• ENVP7 - To integrate measures to address climate change and climate change resilience into grid development, by way of both effective mitigation and adaptation responses, in accordance with available</li> </ul>
National Energy Efficiency Action Plan (NEEAP) (2021)	No	

Plan or Programme	SEA	Inter-relationship
Offshore Renewable Energy Development Plan (OREDPII) (2023)	Yes	guidance and best practice.
Ireland and the Climate Change Challenge – Connecting How Much with How to (2012)	No	<ul style="list-style-type: none"> <li>• ENVP8 - To support the Government’s target of having 40% of electricity consumption generated from renewable energy sources by the year 2020.</li> </ul>
Framework for Sustainable Development in Ireland (2012)	No	<ul style="list-style-type: none"> <li>• ENVO4 – To assist towards meeting national and EU targets, in particular by means of having regard to EirGrid’s Climate Change Adaptation Plan in undertaking grid development projects.</li> <li>• ENVO5 - To mitigate the impacts of climate change through the implementation of policies and processes that reduce energy consumption, reduce energy loss/wastage, and facilitate the supply of energy from renewable sources.</li> </ul>
National Biodiversity Action Plan 2023 - 2027  County Council Heritage & Biodiversity Plans (where available, various dates)	No	<p>There is a potential for effects on biodiversity features from grid development however, to address this, the Draft Grid IP has included the following objective and policies to avoid significant effects as far as reasonably practical:</p> <ul style="list-style-type: none"> <li>• ENVP3 - That any transmission development project, either individually or in combination with other projects, that has the potential to give rise to significant effect on the integrity of any European (Natura) site(s) shall be subject to Appropriate Assessment (AA) in accordance with Article 6 of the EU Habitats Directives.</li> <li>• ENVP4 - To protect flora, fauna and habitats (<u>terrestrial and aquatic</u>) which have been identified in accordance with Articles 12 of the Habitats Directive, the Birds Directive, Wildlife Act 1976 (as amended), the Flora Protection Order (S.I. no. 84 of 1999), the European Communities (Birds and Natural Habitats) Regulations 2011 and the Alien Species Regulation (EU) No 1143/2014. This protection will be afforded at the earliest opportunity in the project development process, i.e., option selection.</li> <li>• ENVP5 - To promote a pro-active good practice approach to tree and hedgerow management in grid development, with the aim of <u>avoiding</u> in the first instance and minimising the impact of transmission development on existing trees and hedgerows.</li> <li>• ENVP6 - To <u>and restore (where possible) habitats</u> which function as wildlife corridors, in accordance with Article 10 of the EU Habitats Directive.</li> <li>• ENVO1 - To ensure that transmission development projects follow the standard approach to environmental assessment of transmission projects set out in the EirGrid topic specific guidelines: <i>EMF &amp; You, Cultural Heritage Guidelines, Ecology Guidelines</i>.</li> </ul>

Plan or Programme	SEA	Inter-relationship
National Heritage Plan (published 2030)	No	<p>There is a potential for effects on cultural heritage features from grid development however, the Draft Grid IP has included for the following objective and policies to avoid significant effects as far as reasonably practical:</p> <ul style="list-style-type: none"> <li>• ENVP14 - To ensure that the special interest of protected structures, including their curtilages and settings, are avoided where possible / protected to the greatest extent possible when considering site or route options for transmission infrastructure development.</li> <li>• ENVP15 - To protect known and unknown (potential) archaeological material in transmission infrastructure development, by avoidance or by best practice mitigation measures.</li> <li>• ENVO1 - To ensure that transmission development projects follow the standard approach to environmental assessment of transmission projects set out in the EirGrid topic specific guidelines: <i>EMF &amp; You, Cultural Heritage Guidelines, Ecology Guidelines</i>.</li> </ul>
The Irish Geological Heritage Programme 1998- ongoing	No	<p>There is a potential for effects on geological features from grid development and as there was no specific objectives and policies proposed in the Draft Grid IP they have been suggested as part of the SEA mitigation.</p>
River Basin Management Plan 2022-2027	Yes	<p>There is a potential for effects on water features from grid development and as there was no specific objectives and policies proposed in the Draft Grid IP they have been suggested as part of the SEA mitigation.</p>
<b>Other Regional, County and Local Plans (not included in the above)</b>		
Flood Risk Management Plans (FRMP) (2021-2027)	Yes	<p>The following objective has been included in the Draft Grid IP to support the FRMP:</p> <ul style="list-style-type: none"> <li>• ENVP16 - To have regard to the Guidelines for Planning Authorities on the Planning System and Flood Risk Management, and Technical Appendices, November 2009, published by the Department of the Environment, Community and Local Government as may be revised/updated when devising grid development projects, and in the preparation of grid development strategies and plans to ensure that there is no increase in flood risk as a result of transmission development, and to ensure any flood risk to the development is appropriately managed.</li> <li>• ENVP17 - To protect the water environment, water quality and aquatic ecology in accordance with the EU Water Framework Directive, in the development of its transmission projects.</li> </ul>

Plan or Programme	SEA	Inter-relationship
County Development Plans (various dates)  Local, City, Town and Electoral Area/ Development Plans (where available, various dates)	Yes (screening as a minimum)	<p>These plans provide existing and future zoning of land at various scales, i.e., county and local.</p> <p>There is a potential for in-combination effects, due to the pressure of multiple development proposals, including on electricity resources and/or other resources in the study area. All development will be subject to appropriate planning and AA requirements. Many of the plans are subject to SEA, while SEA was screened out in others.</p> <p>Upgrading and improving the electrical grid network will aid potential future developments in local, city and town areas.</p> <p>Many of the Draft Grid IP policies and objectives support the requirement of sustainable planning.</p>

### 11.6.3 Cumulative Effects with other Projects

It is assumed that all projects have been or will be subject to any relevant planning processes (including the EIA and AA processes as required) and that project level cumulative impact assessment will be undertaken at the project stage.

Key Messages from Section 11:
<ul style="list-style-type: none"> <li>• Overall, the likely significant effect (LSE) of policies and objectives that will be applied to individual projects will be positive to neutral in nature.</li> <li>• The application of inherent mitigation as developed by EirGrid will reduce the likelihood of significant negative effects on the environment.</li> <li>• The overall magnitude of impacts cannot be quantified and remain unknown until project level assessments are undertaken.</li> <li>• Detailed cumulative impact assessment will be required at the project level assessment stage based on project specific data and analysis.</li> </ul>

## 12. MITIGATION MEASURES

### 12.1 Introduction

The SEA Directive Article Annex 1 of the SEA Directive requires the Environmental Report to set out ‘the measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment of implementing the plan or programme’. Mitigation measures are measures envisaged to prevent, reduce and, as fully as possible, offset any significant adverse impacts on the environment of implementing the Integrated Implementation Plan. Various environmental sensitivities and issues have been communicated to the Authority through the SEA and Appropriate Assessment (AA) processes.

By integrating all SEA and AA recommendations into the Integrated Implementation Plan, the Authority has helped to ensure that:

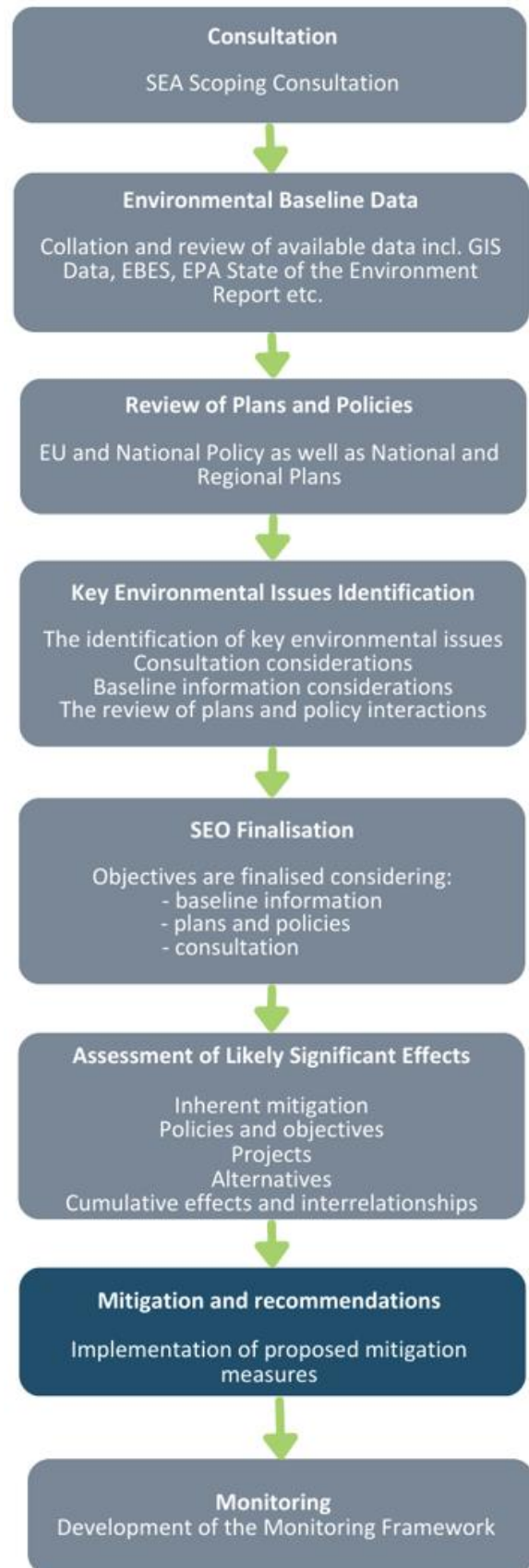
- The potential significant adverse effects of implementing the Plan are avoided, reduced or offset; and
- The beneficial environmental effects of implementing the Plan are maximised.

Mitigation was achieved through the following:

- Early work undertaken by the Authority to ensure contribution towards environmental protection and sustainable development;
- Consideration of alternatives; and
- Integration of individual measures into the Plan.

### 12.2 Early work undertaken by the Authority to ensure contribution towards environmental protection and sustainable development

Far in advance of the placing of the Plan (and associated SEA and AA) on public display, EirGrid undertook early work that has helped to ensure that the Draft Grid IP contributes towards environmental protection and sustainable development of the national grid.





This work includes the adoption of the closely related Transmission Development Plan 2022-2030 that establishes an overall framework for transmission development nationally and already contributes towards the environmental protection and management.

Most proposals included within the Draft Grid IP Plan have been already included within plans that facilitate sustainable energy development such as Shaping our energy future and the Offshore Renewable Energy Development Plan II (ORED II).

The Draft Grid IP has focused significant focus on future learning objectives, prioritisation of data gathering and retention, and action based monitoring processes. There are also commitments for knowledge transfer through collaboration, stakeholder engagement and data sharing processes. Overall the policies and objectives within the Draft Grid IP ensure the protection – and in some instances enhancement – of the environment.

The measures presented below represent the emerging measures after the consideration of alternatives as detailed above.

### 12.3 Integration of individual measures into the Plan

The SEA and AA processes that have been undertaken alongside the preparation of the Plan have brought about changes to the emerging Plan thereby enabling the mitigation of any potentially adverse environmental effects. All recommendations made by the SEA and AA processes were integrated into the Plan. The changes which have been brought about by the SEA and AA processes are detailed in Table 12-1 below.

This tables also link the various mitigation measures to specific environmental components and the potential adverse effects that would be present if the changes were not made. The measures generally benefit multiple environmental components i.e. a measure providing for the protection of biodiversity, flora and fauna could beneficially impact upon the minimisation of flood risk and the protection of human health, for example.

**Table 12-1 Policies incorporated into the Draft Grid IP to mitigate (avoid or minimise) potential impacts from the implementation process – with context provided with regard to the environmental relative effects on the environmental components.**

Environmental component	Environmental Impact Being Mitigated	Code	Policy
Various	Without guided coordinated grid development there is potential for cumulative and/or long term impacts which could affect sustainability of environmental features.	ENVP1	To uphold best environmental practice in the design and appraisal of onshore and offshore grid development, considering impacts onshore, offshore, cumulatively and across state boundaries where relevant.
Various	This policy ensure the monitoring process and future learnings will be integrated by into decision making processes.	ENVP2	To continually improve EirGrid’s approach to the protection of the onshore and marine environment from development impacts, by applying the findings from monitoring at plan and project level to improve existing processes and fund and resource new processes where required
Various	Sustainable development will incorporate social, economic and environmental considerations throughout transmission network planning.	TP1	To promote and facilitate the sustainable development of a high-quality transmission grid to serve the existing and future needs of the country, in accordance with EirGrid's Grid Development Strategy, and the Shaping Our Electricity Future Transmission Network Analysis
Various	Utilising existing infrastructure will promote a reduction in green field development and additional environmental impacts.	TP2	To consider all practical technology options in the development of its projects, including maximising use of the existing grid.
Various	Understanding of decision making processes are fundamental to ensure the timely delivery of projects without which impacts could arise.	TP3	To continue to be proactive in the development of emerging or innovative technical solutions for the development of the transmission grid.
Various	Unintended consequences of grid development could arise – therefore measures are required to identify any such issues.	PDP1	To have regard to EirGrid’s approach to developing the grid, and any associated guidelines, consenting precedents, policies and processes, to ensure the structured, consistent development of all its grid development projects.

Various	Sustainable development will incorporate social, economic and environmental considerations throughout transmission network planning.	PDP2	To promote sustainable grid development by balancing complex and/or competing technical, economic, environmental, social and deliverability goals and priorities in decision-making.
Various	Adequate resources will ensure the delivery of environmental protection measures.	PDP3	To continue to build staffing capacity to adequately resource onshore and offshore grid development and operation, across engineering, environmental, project management, administrative, legal and human resources
Various	Without guided coordinated grid development there is potential for cumulative and/or long term impacts which could affect sustainability of environmental features.	PCP1	To comply with relevant legislation and have regard for relevant guidelines in planning and consenting of grid development projects, and make provision for any policies for the provision of grid development set out in these documents. In particular, to have regard to the National Spatial Strategy, National Planning Framework, Offshore Renewable Energy Development Plans, RSES, and Regional Spatial and Economic Strategies.
Various	Relevant case law informs best practice and provides clarity surrounding topics which may result in unintended issues. This policy will minimise risk in this regard.	PCP2	To have regard to precedent arising from decisions of the Competent Authorities, and of the High Court in Judicial Review of decisions, relating to the planning and consenting of grid development projects.
Various	Sustainable development will incorporate social, economic and environmental considerations throughout transmission network planning.	PCP3	To promote sustainable grid development by balancing complex and/or competing technical, economic and environmental goals and priorities in decision-making.
Various	Stakeholder engagement processes ensure that locally specific environmental issues are easily addressed – as well as helping to identify local data sources – which support the overall sustainable development goals.	CEP1	To consult and engage on grid developments with statutory and non-statutory stakeholders, including communities, landowners and the general public, at the earliest meaningful stage of a project’s development. Consultation will be transboundary where relevant, to include governments, statutory nature conservation bodies, and other agencies, including The Northern Ireland Environment Agency for cross-border matters.

Various	Stakeholder engagement processes ensure that locally specific environmental issues are easily addressed – as well as helping to identify local data sources – which support the overall sustainable development goals.	CEP2	To recognise and develop the essential role that communities, landowners and other stakeholders play in grid development , and to engage with different stakeholders as appropriate at all stages of a grid development project, and in plan-making.
Various	Stakeholder engagement processes ensure that locally specific environmental issues are easily addressed – as well as helping to identify local data sources – which support the overall sustainable development goals.	CEP3	To ensure consultation and engagement feedback is appropriately considered in decision making.
Various	Complaints processes can facilitate additional learnings which will feed into the monitoring programme and strengthen ENVP2 which provides for the incorporation of learnings into future practices.	CEP4	To facilitate formal complaints and to resolve such complaints in a timely manner.
Various	This scheme provides incentive for positive collaboration with communities for environmental enhancement measures.	HBSO3	To promote and deliver EirGrids Community Benefit Policy and Proximity Payments for certain categories of grid development projects, in accordance with established terms of reference.
Various	This policy will identify and minimise potential conflicts with flood risk issues for all plans and projects that arise due to the implementation of the plan.	CLIMP3	That there is no increase in flood risk as a result of grid development, and to ensure any flood risk to the development is appropriately managed.
Population, Human Health & the Economy	This policy will avoid and minimise potential impact to society for all plans and projects that arise due to the implementation of the plan. This will be strengthened by stakeholder engagement policies.	HBSP1	To consider and address social impact and the impact on human beings in the development of grid development projects as appropriate.

Population, Human Health & the Economy	This policy will avoid and minimise potential impact to society for all plans and projects that arise due to the implementation of the plan. This will be strengthened by stakeholder engagement policies.	HBSO1	To examine the social impact of grid development s on the receiving environment as appropriate and in accordance with EirGrid’s methodology for Social Impact Assessment.
Population, Human Health & the Economy	This policy will avoid and minimise potential impact to society for all plans and projects that arise due to the implementation of the plan. This will be strengthened by stakeholder engagement policies.	HBSO2	To ensure that all grid development projects are screened for the requirement for a Social Impact Assessment, and where so required, that such Assessment will accompany an application for statutory consent.
Biodiversity, Flora & Fauna	Streamlining internal processes with regard to technical assessment processes will promote the protection of European sites.	PCP4	To prepare and/or update internal policies and processes related to the planning and consenting of grid development projects, including the existing internal process for Screening of Exempted Development, and Screening for Appropriate Assessment
Biodiversity, Flora & Fauna	This policy ensures the protection of coastal systems and factors necessary for the maintenance of marine biodiversity.	ENVP12	To deliver projects while ensuring natural resources in coastal and marine waters are exploited in a sustainable manner so that biodiversity is maintained or achieved and that European regional seas are clean, healthy and productive
Biodiversity, Flora & Fauna	Inappropriate plan or projects (P/P) development could result in impacts to Protected sites. Thus all lower level P/P require additional considerations. This policy will ensure these types of impacts are avoided for protected species and areas.	BIODP1	To protect flora, fauna and habitats, and sites designated in the Habitats Directive, the Birds Directive, the Wildlife Act 1976 (as amended), the Flora Protection Order (S.I. no. 235 of 2022), and the European Communities (Birds and Natural Habitats) Regulations 2011 (as amended)
Biodiversity, Flora & Fauna	Ecological connectivity and the protection of natural or semi natural habitats could be at risk due to the implementation plan in the absence of mitigation measures.	BIODP2	To minimise the impact of grid development on existing trees and hedgerows, and all semi-natural habitats

Biodiversity, Flora & Fauna	Ecological connectivity and the protection of natural or semi natural habitats could be at risk due to the implementation plan in the absence of mitigation measures.	BIODP3	To protect and wherever possible enhance wooded, wetland and other habitats which function as wildlife corridors, in accordance with Article 10 of the EU Habitats Directive.
Biodiversity, Flora & Fauna	This policy goes beyond protection measures and aims to provide benefits for biodiversity through the transmission development process.	BIODP4	To design habitat creation, restoration and enhancement into project scopes wherever possible, in collaboration with ESB for onshore assets, while complying with relevant technical and safety standards.
Biodiversity, Flora & Fauna	The transmission network has a high level of linear development projects which could influence habitat fragmentation. Early appraisal of options relating to route selection is required to avoid and minimise potential impacts.	BIODP6	<p>The following Corridor and Route Selection Process will be undertaken for relevant new infrastructure both onshore and offshore:</p> <p>Stage 1 – Route Corridor Identification, Evaluation and Selection</p> <ul style="list-style-type: none"> <li>• Environmental constraints (including those identified in Section 6 of the Draft SEA ER) and opportunities (such as existing linear infrastructure) will assist in the identification of possible route corridor options;</li> <li>• Potentially feasible corridors within which infrastructure could be accommodated will be identified and these corridors assessed. The selection of the preferred route corridor will avoid constraints and meet opportunities to the optimum extent, as advised by the relevant specialists; and</li> <li>• In addition to the constraints identified above, site-specific field data may be required to identify the most appropriate corridors.</li> </ul> <p>Stage 2 – Route Identification, Evaluation and Selection</p> <ul style="list-style-type: none"> <li>• Potentially feasible routes within the preferred corridor will be identified and assessed. The selection of preferred routes will avoid constraints and meet opportunities to the optimum extent, as advised by the relevant specialists, taking into account project level information and potential mitigation measures that are readily achievable;</li> <li>• In addition to the constraints identified above, site specific field data may be required to identify the most appropriate routes; and</li> <li>• In addition to environmental considerations, the identification of route corridors</li> </ul>

			and the refinement of route lines is likely to be informed by other considerations.
Landscape, Seascape & Visual Amenity	This policy will identify and minimise potential impact to Landscape and seascapes for all plans and projects that arise due to the implementation of the plan.	ENVP9	To have regard to the objectives of the National Landscape Strategy and the Regional Seascape Character Assessment in onshore and offshore grid development projects, to protect landscapes and seascapes from grid development.
Cultural Heritage - Archaeology & Architectural	This policy will identify and minimise potential impact to architectural and archeological features for all plans and projects that arise due to the implementation of the plan.	CULTP1	To conserve and protect designated and undesignated architectural assets and their settings (onshore) and archaeological heritage (onshore and offshore)
Cultural Heritage - Archaeology & Architectural	This policy will identify and minimise potential impact to architectural and archeological features for all plans and projects that arise due to the implementation of the plan.	CULTP2	To protect known and unknown (potential) archaeological material in grid development , by avoidance, best practice mitigation measures, and by process improvements identified from review of project level environmental monitoring reports
Air Quality & Noise	This policy commits to undertaking good practice and environmental compliance measures with respect to construction phase developments. This will avoid and minimise potential impacts to air quality.	ENVP6	To seek to preserve and maintain air quality in accordance with good practice and relevant legislation in the construction of grid development projects onshore, and offshore
Air Quality & Noise	This policy will support the noise reduction processes introduced by ENVP8.	ENVP7	To facilitate new technologies which minimise noise emissions on onshore and offshore grid development
Air Quality & Noise	This policy commits to undertaking good practice and environmental compliance measures with respect to construction phase developments. This will avoid and minimise potential impacts to air quality.	ENVP8	To seek to preserve and maintain noise quality (including underwater noise) in accordance with good practice and relevant legislation.
Air Quality &	Dust suppression will avoid and minimise potential effects to air quality – as well as	ENVP10	To ensure appropriate dust suppression during construction works.

Noise	indirect effects to features such as water quality.		
Water	The use of SuDS will comply with the SuDs directive as well as avoid and minimize potential impacts to water quality.	ENVP4	To require the use of sustainable urban drainage systems in all new grid developments where appropriate.
Water	This policy will identify and minimise potential conflicts with existing flood risk management processes as well as minimizing impact from flooding issues for all plans and projects that arise due to the implementation of the plan.	ENVP5	To have regard to the statutory guidelines on the Planning System and Flood Risk Management, as may be revised/updated when devising grid development projects, and in the preparation of grid development strategies and plans.
Water	This policy will avoid or minimise potential effects to water quality for surface, ground and marine water systems.	ENVP11	To avoid or minimise impacts on surface, ground, and marine water quality and support achieving objectives of the Marine Strategy Framework Directive and Water Framework Directive.
Water	This policy will ensure the transmission development protects the aquatic environment necessary for compliance the EU Water Framework Directive.	ENVP23	To protect the water environment, water quality and aquatic ecology in accordance with the EU Water Framework Directive, in the development of its transmission projects.
Water	This policy will identify and minimise potential impact to environmental themes which rely on water quality – as well as ensuring compliance with relevant legislation – for all plans and projects that arise due to the implementation of the plan.	ENVP24	Contribute towards, as appropriate, the protection of existing and potential water resources, and their use by humans and wildlife, including rivers, streams, wetlands, groundwater, coastal waters and associated habitats and species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009), the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (groundwater) Regulations, 2010 (S.I. No. 9 of 2010) and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same). To support the application and implementation of a catchment planning and



			management approach to development and conservation, including the implementation of Sustainable Drainage System techniques for new development.
Water	This policy will identify and minimise potential impact to bathing water quality – as well as ensuring compliance with relevant legislation – for all plans and projects that arise due to the implementation of the plan.	ENVP25	Contribute towards the achievement of the requirements of the EU Bathing Water Directive and transposing Bathing Water Quality Regulations (SI No. 79 of 2008) and EU Mandatory Values, as a minimum, and EU Guide Values, where possible.
Tourism & Recreation	This policy will identify and minimise potential impact to tourism for all plans and projects that arise due to the implementation of the plan.	HBS04	To assess and mitigate wherever possible the potential impact upon tourism in the development of grid development projects onshore and offshore, particularly on natural and unspoilt attractions with identified tourism potential.
Climate Change	Streamlining and optimizing approach to delivery of targets will improve the efficiency related to the delivery of climate targets.	ENVP3	To apply a strategic / programmatic approach to onshore and offshore grid development to optimize environmental assessment and public engagement at a regional / landscape scale. Through programmatic approaches, reduce timescales and resources, and increase project delivery rate to achieve the 2030 targets of up to 80% electricity from renewable sources.
Climate Change	This policy supports renewable energy generation.	TP4	To effectively manage oversupply by utilising Demand Flexibility in order to promote renewable generation.
Climate Change	Streamlining and optimizing approach to delivery of targets will improve the efficiency related to the delivery of climate targets.	TP5	To ensure EirGrid and ESB Networks develop and implement an end-to-end TSO/TAO joint approach to optimise delivery of onshore and offshore grid infrastructure projects.
Climate Change	Streamlining and optimizing approach to delivery of targets will improve the efficiency related to the delivery of climate targets.	CLIMP1	To integrate measures to address climate change into grid development, through effective mitigation and adaptation responses, in accordance with available guidance and best practice.
Climate Change	Streamlining and optimizing approach to delivery of targets will improve the efficiency	CLIMP2	To support, through all activities, and in particular connection of low-carbon and renewable energy generation onshore and offshore, delivery of the Government’s target of up to 80% electricity consumption generated from renewable energy

	related to the delivery of climate targets.		sources by the year 2030.
Transboundary Effects	This will support transboundary collaboration.	TP6	To promote Security of Supply in order to maximise access to generation and promote future interconnections with neighbouring countries

**Table 12-2 Objectives incorporated into the Draft Grid IP to mitigate (avoid or minimise) potential impacts from the implementation process – with context provided with regard to the environmental relative effects on the environmental components.**

Environmental component	Environmental Impact Being Mitigated	Code	Objectives
Various	Without guided coordinated grid development there is potential for cumulative and/or long term impacts which could affect sustainability of environmental features.	ENVO1:	To ensure that grid development projects onshore and offshore follow standard approaches to environmental assessment of grid development projects including EirGrid topic specific guidelines on Electromagnetic Fields (EMF), Cultural Heritage, and Ecology and international best practice
Various	This objective ensure the future learnings will be integrated by into decision making processes and will be communicated outwards.	ENVO2:	To continue to prepare and/or update EirGrid evidence-based environmental guidelines, to integrate updated evidence or assess new types of development including offshore
Various	This objective ensure collaborative learning from stakeholder engagement to be integrated by into decision making processes and will be communicated outwards.	ENVO3:	To develop the environment space on the EirGrid website as a tool for sharing information on EirGrid's impacts on and actions for the environment
Various	This objective will identify and minimise potential conflicts with flood risk issues for all plans and projects that arise due to the implementation of the plan.	ENVO5:	That all grid development proposals, and in particular, transmission substation developments, shall carry out, to an appropriate level of detail, a site-specific Flood Risk Assessment that shall demonstrate compliance with all current Guidelines, standards and best practice. The Flood Risk Assessment shall pay particular emphasis to residual flood risks, site-specific mitigation measures, flood-resilient design and construction, and any necessary management measures.
Various	This objective will identify and minimise potential conflicts with flood risk issues for all plans and projects that arise due to the implementation of the plan.	ENVO7:	That development of new transmission substations will not occur on sites which are below estimated flood levels for CFRAM Zone A or Zone B, without the relevant justification test
Various	This objective ensure the future learnings will be integrated by into decision making processes and will be communicated outwards.	ENVO8:	To continually improve the effectiveness of project level mitigations, and fill knowledge gaps, by reviewing project-level environmental monitoring reports, and identifying any instances of mitigation failure.
Various	This objective ensure the future learnings will	ENVO9:	To continually improve the effectiveness of plan level mitigations, and fill

	be integrated by into decision making processes and will be communicated outwards.		knowledge gaps, by regularly (where possibly annually) publishing SEA-related monitoring reports, and implementing recommendations for process improvements
Various	This database will assist in future monitoring processes.	ENVO10:	To establish and maintain a Geographic Information System of existing and proposed EirGrid grid development projects onshore and offshore, to assist with the identification of cumulative and transboundary impacts
Various	This objectives will support the creation of a database will assist in future monitoring processes.	ENV011:	To insert in project environmental assessments for onshore and offshore projects, new requirements for Contractors to provide written environmental monitoring reports to the EirGrid Planning and Environmental Unit, in addition to any prescribed bodies. This will increase the flow of information back to EirGrid, and between project and plan level assessments
Various	Without guided coordinated grid development there is potential for cumulative and/or long term impacts which could affect sustainability of environmental features.	PDO1:	To undertake periodic reviews, as appropriate, of the approach and associated guidelines, policies and processes, to ensure that the approach remains a suitable and sustainable structured approach to the development of grid development projects.
Various	This Objective will avoid and minimise potential impact to society for all plans and projects that arise due to the implementation of the plan. This will be strengthened by stakeholder engagement policies.	CEO1:	To engage with statutory and non-statutory stakeholders in a meaningful manner as set out in the EirGrid Engagement Handbook and Toolkit and via EirGrid's Agricultural Liaison Officers and Community Liaison Officers.
Various	This scheme provides incentive for positive collaboration with communities for environmental enhancement measures.	HBSO1	To implement our new Community Benefit policy and fund high quality sustainability, biodiversity, and community projects in areas affected by grid development projects. All projects are aligned with United Nations Sustainable Development Goals, and administered through a Community Forum to ensure they are designed by local communities, for local communities
Population, Human Health & the Economy	Complaints processes can facilitate additional learnings which will feed into the monitoring programme and strengthen ENVP2 which provides for the incorporation of learnings into future practices.	CEO2:	To maintain and update as required EirGrid's Complaints procedure.
Biodiversity, Flora & Fauna	This policy will avoid or minimise effects to European sites so that no Plan or Project shall arise from the IP which is likely to give rise to	BIODO1:	That any grid development project, either individually or in combination with other projects, that has the potential to give rise to significant effect on the integrity of any European (Natura) site(s) shall be subject to Appropriate Assessment (AA) in

	significant effects.		accordance with Article 6 of the EU Habitats Directive.
Biodiversity, Flora & Fauna	Having a standardised approach to recording habitat loss and net gain into a localised GIS database will facilitate effective monitoring and future learnings.	BIODO2	To quantify and report losses in habitat area from development and deliver wherever possible, net gain (and if not no net loss) of semi-natural habitats from grid development. Mechanisms will include ecological input to landscape planting so that it functions for biodiversity, enhancement of existing habitats, and as a last resort, off-site habitat compensation.
Biodiversity, Flora & Fauna	This objective will further reduce existing impacts due to collision risk.	BIODO3	To continue the retrofitting of bird flight diverters on existing overhead lines (where the opportunity arises during line repairs), and seek to establish a citizen science reporting portal for bird strikes to better understand likely high risk lines to birds.
Biodiversity, Flora & Fauna	Having a standardised approach to reporting of impacts feeding into a localised GIS database will facilitate effective monitoring and future learnings.	BIODO4	To standardize the reporting of residual biodiversity impacts (after mitigation) at a geographic frame of reference, and report on trends in the course of SEA-related monitoring
Biodiversity, Flora & Fauna	This objective promotes collaboration with existing national data sources to contribute to understandings of biodiversity.	BIODO5	To establish the submission of ecological records to the National Biodiversity Data Centre as Business-as-Usual, by imposing as a contractual requirement at planning and where relevant operational phases of grid developments onshore and offshore
Landscape, Seascape & Visual Amenity	This objective will identify future changes to thresholds related to potential impact to Landscape and seascapes for all plans and projects that arise due to the implementation of the plan.	ENVO4:	To have regard to any future National Landscape and/or Seascape Character Assessment in the development of its grid development projects.
Cultural Heritage - Archaeology & Architectural	This objective will identify and minimise potential impact to architectural and archeological features for all plans and projects that arise due to the implementation of the plan.	CULTO1	To obtain summary archaeological monitoring reports for grid developments onshore and offshore in collaboration with ESB (where relevant), and share summary findings from the Database of Irish Excavation Reports on the EirGrid webpage
Tourism & Recreation	This objective will identify and minimise potential impact to tourism for all plans and projects that arise due to the implementation of the plan.	ENVO6:	To identify the nature of tourism in a project area; to consider the cumulative / in combination impact on tourism of a project and to consider short term and long term impacts of grid development projects on tourism as appropriate.
Tourism & Recreation	This will avoid impacts to both visual amenity and tourism.	ENV012:	To ensure that site selection and design of new overground infrastructure onshore and offshore considers views from existing purpose-built tourism facilities, as well as views from touring routes, walking trails, scenic viewing points, and greenways

Climate Change	Streamlining and optimizing approach to delivery of targets will improve the efficiency related to the delivery of climate targets.	CLIMO1:	To assist towards meeting national and EU climate targets, in particular the Government's Climate Action Plan 2023 (and future plans). Specific to grid development, EirGrid will deliver it's obligations under the Governments Sectoral Climate Change Adaptation Plan (Electricity and Gas Networks) in grid development plans and projects.
Climate Change	This objective supports renewable energy generation.	CLIMO2:	To mitigate the impacts of climate change through policies and processes that reduce energy consumption and energy loss/wastage. EirGrid will meet committed targets to reduce Green House Gas Emissions under the international Science Based Targets initiative, towards which progress will be reported publicly

**Table 12-3: Examples of SEA/AA recommendations included within the Draft Grid IP – Green text is additional text, strike through text reflects words removed**

Recommendation	Code	Policy or Objective
Amended Text	ENVP11	To avoid or minimise impacts on surface, ground, and marine water quality and support achieving objectives of the Marine Strategy Framework Directive and Water Framework Directive.
Policy Added	ENVP23	To protect the water environment, water quality and aquatic ecology in accordance with the EU Water Framework Directive, in the development of its transmission projects.
Policy Added	ENVP24	Contribute towards, as appropriate, the protection of existing and potential water resources, and their use by humans and wildlife, including rivers, streams, wetlands, groundwater, coastal waters and associated habitats and species in accordance with the requirements and guidance in the EU Water Framework Directive 2000 (2000/60/EC), the European Union (Water Policy) Regulations 2003 (as amended), the European Communities Environmental Objectives (Surface Waters) Regulations 2009 (SI No. 272 of 2009), the Groundwater Directive 2006/118/EC and the European Communities Environmental Objectives (groundwater) Regulations, 2010 (S.I. No. 9 of 2010) and other relevant EU Directives, including associated national legislation and policy guidance (including any superseding versions of same). To support the application and implementation of a catchment planning and management approach to development and conservation, including the implementation of Sustainable Drainage System techniques for new development.
Policy Concept Provided for addition	BIODO2	To quantify and report losses in habitat area from development and deliver wherever possible, net gain (and if not no net loss) of semi-natural habitats from grid development. Mechanisms will include ecological input to landscape planting so that it functions for biodiversity, enhancement of existing habitats, and as a last resort, off-site habitat compensation.
Policy Concept Provided for addition	ENVO10:	To establish and maintain a Geographic Information System of existing and proposed EirGrid grid development projects onshore and offshore, to assist with the identification of cumulative and transboundary impacts.
Policy Concept Provided for addition	ENVO11:	To insert in project environmental assessments for onshore and offshore projects, new requirements for Contractors to provide written environmental monitoring reports to the EirGrid Planning and Environmental Unit, in addition to any prescribed bodies. This will increase the flow of information back to EirGrid, and between project and plan level assessments

Policy Added	BIODP6	<p>The following Corridor and Route Selection Process will be undertaken for relevant new infrastructure both onshore and offshore:</p> <p>Stage 1 – Route Corridor Identification, Evaluation and Selection</p> <ul style="list-style-type: none"> <li>• Environmental constraints (including those identified in Section 6 of the Draft SEA ER) and opportunities (such as existing linear infrastructure) will assist in the identification of possible route corridor options;</li> <li>• Potentially feasible corridors within which infrastructure could be accommodated will be identified and these corridors assessed. The selection of the preferred route corridor will avoid constraints and meet opportunities to the optimum extent, as advised by the relevant specialists; and</li> <li>• In addition to the constraints identified above, site-specific field data may be required to identify the most appropriate corridors.</li> </ul> <p>Stage 2 – Route Identification, Evaluation and Selection</p> <ul style="list-style-type: none"> <li>• Potentially feasible routes within the preferred corridor will be identified and assessed. The selection of preferred routes will avoid constraints and meet opportunities to the optimum extent, as advised by the relevant specialists, taking into account project level information and potential mitigation measures that are readily achievable;</li> <li>• In addition to the constraints identified above, site specific field data may be required to identify the most appropriate routes; and</li> <li>• In addition to environmental considerations, the identification of route corridors and the refinement of route lines is likely to be informed by other considerations.</li> </ul>
--------------	--------	---



### Key Messages from Section 12:

- Recommendations have been provided to strengthen the Draft Grid IP policies and objectives. All recommendations have been accepted by EirGrid.
- A series of mitigation measures, in the form of recommendations, have been proposed in order to alleviate potential unknown and negative likely significant effects (LSEs), and to further strengthen the existing in-house EirGrid processes and procedures.

## 13. MONITORING FRAMEWORK

The monitoring framework provided in Table 13-2 has been developed for the Draft Grid IP using the SEA objectives and indicators. The purpose of this monitoring is to:

- provide the evidence needed to monitor and manage the potential significant negative effects and unforeseen effects of the Draft Grid IP during detailed project development; and
- monitor the baseline environmental conditions for all SEA objectives and inform the planned six yearly updates of the Draft Grid IP when all available monitoring data will be reviewed.
- EPA (2020) guidance was considered throughout its development along with EirGrids 2022 SEA Monitoring Report recommendations.

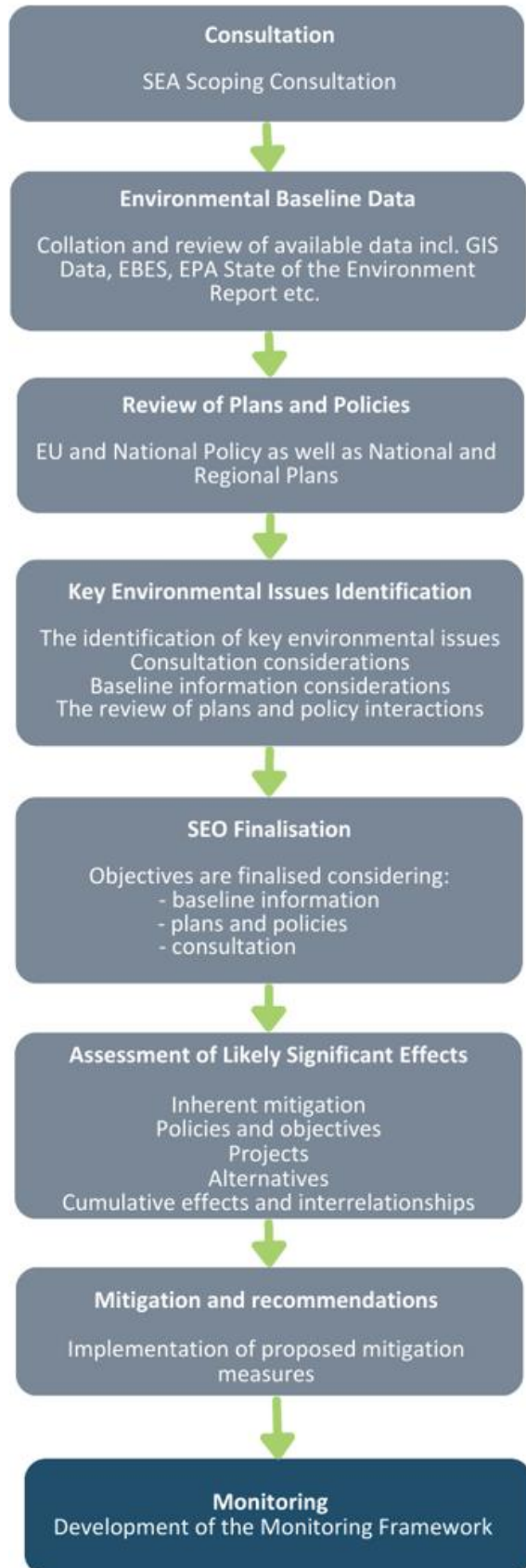
The new monitoring programme will harness existing datasets and aims to streamline report generation by using automated pathways for analysis. The R-Markdown package (or similar) will be used to ensure data is gathered and cleaned effectively to produce repeatable reports. This will facilitate annual monitoring. The source code and supporting data will be made available using a Zotero database link each year within the lifetime of the Draft Grid IP.

Given the passage of time since the publication of the previous Draft Grid IP and SEA, a review of the appropriateness and practicality of the previous objectives, indicators, targets and monitoring measures was undertaken. This exercise examined their suitability as tools in the environmental appraisal of works undertaken as part of the previous Draft Grid IP.

The monitoring frequency for each indicator will vary depending on availability of data however, where available, these will be recorded annually. Monitoring using the indicators set out in Table 13-2 will commence as soon as the Draft Grid IP is implemented.

It is noted that (EMM3) Environmental SEA Compliance Check will facilitate the SEA monitoring and will be adapted for each stage of the project development and project scale.

Any effects or issues identified during the SEA monitoring will be used to inform the development of the next Draft Grid IP. It is also important to note that the monitoring framework will also apply for any potential transboundary effects.



**Table 13-1 Key Monitoring Recommendations from EirGrid’s SEA Monitoring Report of the Grid IP 2017-2022**

Key Monitoring Recommendations from EirGrid’s SEA Monitoring Report of the Grid IP 2017-2022 (Direct Relevance to Monitoring Framework in Grey)		Status of EirGrid Recommendation
R1	Specify GIS workflows and datasets, to include the EPA’s latest Synthesis of Spatial Datasets <a href="https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/sea-spatial-information-sources-inventory-.php">https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/sea-spatial-information-sources-inventory-.php</a>	Incorporated into Monitoring Framework in Draft Grid IP 2023-2028.
R2	Include formal interviews with EirGrid Community Liaison Officers, Agricultural Liaison Officers, and other relevant Subject Matter Experts to gather qualitative information on actual or perceived project impacts.	Incorporated into Monitoring Framework in Draft Grid IP 2023-2028. Interviews to commence 2024.
R3	Specify that appointed Contractors provide written monitoring reports to the EirGrid Planning and Environmental Unit, in addition to prescribed bodies. This will increase flow of information from project to plan level (principle of ‘tiering’) to verify project level predictions, and refine future mitigation future	Specification already baselined into EirGrid environmental documents since 2022.
R4	EirGrid will seek the licence number of the licensed archaeologist carrying out project level monitoring, to enable EirGrid access to archaeological monitoring reports on the publicly accessible <a href="http://www.excavations.ie">www.excavations.ie</a> website. EirGrid will engage with Kilkenny County Council to seek GIS data for the County Kilkenny Record of Protected Structures	Process established with ESB 2022.  KCC GIS data to be obtained 2024.
R5	EirGrid will curate a centralized GIS data repository for all Capital Projects, to include scopes of environmental assessments (EIA vs PECR; AA vs AA Screening).	Completed 2023.
R6	Standardize residual impact reporting in Planning and Environmental Consideration Reports/Environmental Impact Assessment Reports to include residual biodiversity effects at a geographic scale of reference and quantification of net habitat loss areas.  This will be achieved by issuing guidance to expert consultants, compliance with which is a contractual requirement	Completed 2022.
R7	On certain existing overhead line projects being uprated, EirGrid will propose retrofitting wires with bird flight diverters (following ESB specification), at potential high risk collision areas, based on expert ecological judgement (spans oversailing Special Protection Areas, significant wetlands, or other significant bird habitats). This is an example of Nature Inclusive Design, referred under recommendation R8.	Process already baselined into project scopes (17 km overhead lines committed as of Q4 2024).
R8	EirGrid will embed a Nature Inclusive Design requirement in every project scope in response to the European and national policy imperative for action on biodiversity . These will be delivered in collaboration with ESB.	Process baselined 2022 and ongoing.

R9	In collaboration with ESB, EirGrid will seek to develop a specification for planting over cables, to minimise residual habitat loss from underground cable projects.	Ongoing. Draft Strategy in preparation including ongoing EirGrid engagement with international Transmission System Operators.
R10	In future projects, in collaboration with ESB, EirGrid Planning and Environmental Unit will specify that the appointed Contractor delivers a five year aftercare plan for landscaping and adhere to Teagasc hedgerow planting guidelines (2021).	Process baselined 2022 and ongoing.
R11	Include bespoke objective to link SEA and project level assessments by imposing SEA mitigation on all future planning applications.	Complete and incorporated within the policies.

**Table 13-2: SEA Objectives, Target and Indicators: Monitoring Framework**

Theme	Objective	Target	Indicator	Frequency of Monitoring Reports on EirGrid Website	Automated GIS or other analyses
All	<b>O1:</b> Ensure, where appropriate, that lower level plans and projects implement SEA mitigation and policies and contribute to overall environmental monitoring processes within EirGrid .	<b>O1_T1:</b> Communicate project-relevant policies and mitigation requirements to EirGrid project managers, and Lead EirGrid consultants	<b>O1_I1</b> Written technical guidance issued to EirGrid project managers, and Lead EirGrid consultants	N/A	No
Population, Human Health & the Economy	<b>PHH1:</b> Minimise the proximity of development to concentrations of population in order to reduce actual and/or perceived environmental effects.	<b>PHH1_T1:</b> Noise levels emanating from the proposed development following commissioning, when measured externally at a noise sensitive location shall not exceed recommended guideline values.	<b>PHH1_I1:</b> No exceedances reported in monitoring reports (where available) in levels specified in planning conditions.	Annually starting 2024, with final report in 2029	No
		<b>PHH1_T2:</b> Ensure compliance with all authoritative international and national guidelines for Extremely Low Frequency (ELF) EMF	<b>PHH1_I2:</b> <u>Project Documents</u> Compliance with all authoritative international and national guidelines for ELF EMF exposure confirmed in project documents, and monitoring reports if/where available	Annually starting 2024, with final report in 2029	No

Theme	Objective	Target	Indicator	Frequency of Monitoring Reports on EirGrid Website	Automated GIS or other analyses
		exposure.			
		<b>PHH1_T3:</b> Avoid where possible routing of overhead transmission line within 50m of existing dwellings.	<b>PHH1_I3:</b> <u>GIS analysis:</u> No. existing dwellings (OSI Prime 2 data) within 50m of <i>new</i> overhead transmission line development.	Annually starting 2024, with final report in 2029	Yes
		<b>PHH1_T4:</b> Intersection of marine transmission infrastructure with range of inshore fishing activities	<b>PHH1_I4:</b> <u>GIS analysis:</u> No. inshore fishing sites intersected by marine transmission infrastructure (Specific Datasets TBC following consultation with Fisheries groups)	Annually starting 2024, with final report in 2029	Yes
		<b>PHH1_T5:</b> Intersection of marine transmission infrastructure with range of inshore fishing activities	<b>PHH1_I5:</b> <u>EirGrid Annual Report:</u> €Total Available € for community fund projects		
<b>Biodiversity, Flora &amp; Fauna</b>	<b>B1:</b> Ensure compliance with Habitats and Birds Directives with regard to protection of designated European Sites	<b>B1_T1:</b> Maintenance of favourable conservation status for all habitats and species protected under the Habitat	<b>BI_I1:</b> <u>Project Documents:</u> No. projects subject to Imperative Reasons of Overriding Public Interest (IROPI).	Annually starting 2024, with final report in 2029	No

Theme	Objective	Target	Indicator	Frequency of Monitoring Reports on EirGrid Website	Automated GIS or other analyses
		Directive potentially affected by the implementation of the Grid IP.	<b>BI_I2:</b> <u>Project Documents</u> No. projects screened in for Appropriate Assessment	Annually starting 2024, with final report in 2029	No
			<b>BI_I3:</b> <u>GIS analysis</u> No. projects with new overhead line or underground cable infrastructure within Special Areas of Conservation or Special Protection Areas (onshore and offshore)	Annually starting 2024, with final report in 2029	Yes
			<b>BI_I4:</b> <u>Bespoke EirGrid Database</u> No. projects (new or existing overhead lines) with bird diverters proposed to reduce bird strike risk	Annually starting 2024, with final report in 2029	No
			<b>BI_I5</b> <u>Bespoke EirGrid Database</u> Total length of overhead line spans on which retrofitted bird diverters are committed by EirGrid and ESB in CPP documents	Annually starting 2024, with final report in 2029	No
	<b>B2:</b> Support Article 10 of the Habitats Directive with regard to ecological networks	<b>B2_T1:</b> No significant loss to ecological networks resulting from development provided for by the Grid IP.	<b>B2_I1:</b> <u>Bespoke EirGrid Database</u> Length of hedges/treelines (km) permanently removed, resulting in breaks to wildlife corridors (notwithstanding compensatory planting in other areas)	Annually starting 2024, with final report in 2029	No

Theme	Objective	Target	Indicator	Frequency of Monitoring Reports on EirGrid Website	Automated GIS or other analyses
			<b>B2_I2:</b> <u>GIS analysis</u> No of hedges/treelines permanently removed, which are Part of 2 or 3 ecological networks, in NPWS Ecosystem Services <u>Data (MAES15)</u>	Annually starting 2024, with final report in 2029	Yes
	<b>B3:</b> Avoid significant impacts on protected habitats, or species, or nationally designated sites	<b>B3_T1:</b> Avoid significant impacts on habitats, species or nationally designated sites	<b>B3_I1:</b> <u>GIS analysis</u> No. and length of projects with new overhead line or underground cable infrastructure within Natural Heritage Areas or proposed Natural Heritage Areas (pNHAs), onshore and offshore	Annually starting 2024, with final report in 2029	Yes
			<b>B3_I2:</b> <u>Project Documents</u> No. projects with residual effects (post mitigation) on Important Ecological Features at geographic scale of County or above.	Annually starting 2024, with final report in 2029	No
			<b>B3_I3:</b> <u>Project Documents</u> No. projects requiring translocation of rare or protected plant species, or habitats	Annually starting 2024, with final report in 2029	No
<b>B4</b> Restore or enhance nature (including net habitat gain)	<b>B4_T1:</b> Deliver measurable gain in biodiversity	<b>B4_I1</b> <u>Bespoke EirGrid Database</u> No. of projects* demonstrating measurable gain in habitat area**  *Excluding uprates, refurbishments, and projects entirely within existing substations **Habitats of Local Importance (Higher value) and above only	Annually starting 2024, with final report in 2029	No	



Theme	Objective	Target	Indicator	Frequency of Monitoring Reports on EirGrid Website	Automated GIS or other analyses
			<b>B4_I2</b> <u>Bespoke EirGrid Database</u> Cumulative total net change in habitat area from relevant projects*	Annually starting 2024, with final report in 2029	No
			<b>B4_I3</b> <u>Bespoke EirGrid Database</u> No. of offshore transmission projects with nature inclusive design features	Annually starting 2024, with final report in 2029	No
<b>Landscape &amp; Visual Amenity</b>	<b>L1:</b> Avoid or, minimise impacts to statutory landscape and seascape designations,	<b>L1_T1:</b> No avoidable impacts on the landscape or seascape	<b>L1_I1:</b> <u>GIS analysis</u> No. overhead line projects, or offshore substations with within 1km of a) scenic routes and b) scenic viewpoints	Annually starting 2024, with final report in 2029	Yes
			<b>L1_I2:</b> <u>GIS analysis</u> No. offshore transmission projects interacting negatively with seascape character areas (Details TBC)	Annually starting 2024, with final report in 2029	Yes
<b>Cultural Heritage - Archaeology &amp; Architectural</b>	<b>CH1:</b> Avoid or minimise impacts upon archaeological heritage sites	<b>CH1_T1:</b> No. projects resulting in significant long-term impacts to entries in the RMP	<b>CH1_I1:</b> <u>GIS analysis</u> No. projects intersecting Zone of Notification for cultural heritage sites	Annually starting 2024, with final report in 2029	Yes
			<b>CH1_I2:</b> <u>GIS analysis</u> No. marine transmission projects intersecting Recorded shipwrecks (including INFOMAR data)	Annually starting 2024, with final report in 2029	Yes
<b>Geology and</b>	<b>GSL1:</b> To avoid or minimise effects designated geological	<b>GSL_T1:</b> No significant long-term impacts on	<b>GSL1_I1:</b> <u>GIS analysis</u> No. projects intersecting designated Geological Heritage	Annually starting 2024, with final report	No

Theme	Objective	Target	Indicator	Frequency of Monitoring Reports on EirGrid Website	Automated GIS or other analyses
Soils	sites	designated geological heritage sites	sites (geological Natural Heritage Areas, audited County Geological Sites)	in 2029	
Land use	<b>LU1:</b> To avoid or minimise effects on existing land and marine use.	<b>LU1_T1:</b> No avoidable impacts on the landuse resulting from development provided for by the Grid IP.	<b>LU1_I1:</b> <u>Project Documents</u> Area of land-use change predicted from substation development following mitigation	Annually starting 2024, with final report in 2029	No
Water	<b>W1:</b> Maintain and/or improve, the quality and status of surface waters, including supporting for the objectives for the Draft Third Cycle River Basin Management Plan (2022-2027) where relevant and appropriate	<b>W1_T1:</b> No deterioration in the status of any surface ground water or affect the ability of any surface ground to maintain or achieve 'good' status.	<b>W1_I1:</b> Change in Overall WFD Status for surface and groundwater (comparison before Draft IP, and after Draft IP)	2029 only, when pre-IP WFD data (2016-2021; released 2022) can be compared with plan cycle data (2022-2027; released 2025)	Yes
			<b>W1_I2:</b> <u>GIS analysis</u> Area of new substation or underground cable development in areas of extreme or high groundwater vulnerability	Annually starting 2024, with final report in 2029	Yes
			<b>W1_I3:</b> <u>GIS analysis</u> Area of new substation or underground cable development intersecting GSI Groundwater wells and springs	Annually starting 2024, with final report in 2029	Yes
Material	<b>MAI1:</b> Avoid or minimise effects	<b>MAI1_T1:</b> To minimise	<b>MAI1_I1:</b> <u>GIS analysis</u> Area of Good	Annually starting	Yes

Theme	Objective	Target	Indicator	Frequency of Monitoring Reports on EirGrid Website	Automated GIS or other analyses
Assets & Infrastructure	on built/amenity assets and infrastructure.	impacts on farming practices.	Agricultural Land lost to permanent infrastructure (GIS Data Source TBC)	2024, with final report in 2029	
		<b>MAI2:</b> Minimise effects upon existing and planned infrastructure.	<b>MAI1_I2:</b> <u>GIS analysis</u> No. of High Density Commercial and transport routes intersected by offshore transmission routes	Annually starting 2024, with final report in 2029	Yes
Tourism & Recreation	<b>TR1:</b> Minimise effects upon the tourism and recreation amenities.	<b>TR1_T1:</b> No significant impacts on tourism and recreation amenities.	<b>TR1_I1:</b> <u>GIS analysis</u> No. tourist sites* within 500m of significant new infrastructure  *Failte Ireland Tourism Designations and OPW Visitor Sites <b>TR1_I2:</b> <u>GIS analysis</u> No. intersections of new infrastructure projects with designated walking trails	Annually starting 2024, with final report in 2029	Yes
			<b>TR1_I3:</b> <u>GIS analysis</u> No. blue flag beaches intersected by marine transmission infrastructure	Annually starting 2024, with final report in 2029	Yes
Climate Change	<b>CC1:</b> Help to facilitate the achievement of higher level government targets for delivery of renewable energy in latest Climate Action Plan	<b>CC_T1:</b> Contribute towards an increase in electricity generation from renewable energy (ultimately up to 80% by 2030).	<b>CC_I1:</b> <u>EirGrid Annual Report</u> Percentage electricity generation from renewable energy reported in EirGrid Annual Report <b>CC_I2:</b> <u>EirGrid Annual Report</u> No. of projects in Annual Transmission Development Plan	Annually starting 2024, with final report in 2029	Yes

Theme	Objective	Target	Indicator	Frequency of Monitoring Reports on EirGrid Website	Automated GIS or other analyses
			<b>CC_I3: <u>EirGrid Annual Report</u></b> MW Capacity Energized <b>CC_I4 <u>EirGrid Annual Report</u></b> Connection Projects?		

### Key Messages from Section 13 of this report:

- The SEA monitoring Framework has been proposed in order to monitor and manage the potential significant negative effects and unforeseen effects of the Draft Grid IP.
- EirGrid is committed to undertaking a detailed and data driven monitoring programme throughout the lifetime of the Draft Grid IP.
- The Monitoring Programme will be iterative and evolving ensuring lessons learned are actioned into future monitoring approaches in collaboration with the EPA.
- EPA (2020) guidance was considered throughout its development along with EirGrids 2022 SEA Monitoring Report recommendations.
- There is a commitment for annual monitoring with the data being made publicly available (where possible).

## 14. CONCLUSION

This Draft SEA ER presents an assessment of the likely significant effects of the Draft Grid IP on the environment. It has been prepared in compliance with the SEA Directive and associated transposing Irish regulations. The SEA and the NIS have been developed in tandem with the Draft Grid IP. This stage (Stage 3) of the SEA process (the assessment stage) was undertaken.

Since the previous Grid IP and its associated SEA, significant progress has been made in terms of internal processes and procedures within EirGrid to ensure environmental aspects are given consideration throughout grid development process. One key area of progress has been the fundamental shift in policy and progress to embed nature restoration into business as usual, in response to the society-wide imperative to tackle the biodiversity crisis declared by the Irish government in 2019. Another is the continually enhanced commitment to meaningful public consultation and deliberative dialogue in all aspects of grid development.

As part of this draft of the Draft Grid IP EirGrid have continued to build on the work to date and have included a series of policies and objectives to ensure that the environment is appropriately protected in the process of grid development. A total of 67 policies and objectives are proposed under the Draft Grid IP. Each one has been assessed against the SEOs, and overall, the policies and objectives within the Draft Grid IP have been found to be positive in nature, helping to:

- Serve the electricity needs of the county in a sustainable manner;
- Explore offshore renewable options and develop where feasible;
- Make provisions to avoid and mitigate against potential environmental effects;
- Promote the use of existing grid infrastructure when feasible;
- Implement and improve existing internal guidance, processes and procedure when it comes to grid development;
- Incorporate social impact assessment into the grid development process;
- Promote new (and potentially less impactful) technologies in transmission infrastructure development;
- Increase transparency and public participation in the grid development process;
- Contribute to Irelands achievement of its renewable energy targets;
- Contribute to combating climate change; and
- Support the key actions outlined in the EPAs State of the Environment Report (EPA,2020).

Where needed, amendments, recommendations or additions were proposed within this Draft SEA ER in order to strengthen these draft policies and objectives.

The Draft Grid IP provides the best current understanding of those parts of the transmission system that are likely to be developed over the next six years. All projects within the Draft Grid IP will be subject to the inherent mitigation as set out in **Section 11.2**. Consideration of the potential environmental effects will be undertaken during the selection of the preferred solution through the Framework for Grid Development, and each project will be subject to the policies and objective set out in the Draft Grid IP.

Under the Draft Grid IP, and in line with EirGrid Strategy, there is a strong focus on the utilisation of the existing network as far as reasonably practical. This focus will avoid potential negative effects on the environment and will contribute toward sustainable development. Projects currently within the planning system<sup>79</sup> which have been scoped in due to the scale and nature include:

- CP0966 Kildare Meath Grid Upgrade;
- CP1190 Poolbeg; and,
- CP1213 Belcamp.

Major Projects not in planning system which have been scoped in due to the scale and nature include:

- CP1021 East Meath to North Dublin (Dublin and Meath)
- Phase 2 South Coast offshore (and onshore grid connection) (Cork and Waterford)
- CP1023 Letterkenny Station Redevelopment (Co. Donegal)
- CP1048 Power Flow Control Scheme (Co. Donegal)
- CP0967 Moneypoint Series Compensation (Site at Knockkyle, Co. Laois)
- CP1196 Arklow / Ballybeg to Carrickmines Upvoltage
- CP1300 Climate Change Adaptation
- CP0982 Flagford Sligo Capacity Needs
- CP1233 Donegal - Srananagh Corridor

All other projects were subject to a high-level assessment of effects as these projects comprised modifications to, or extensions of existing assets. Due to their relatively small scale or nature prior to the assessment, significant effects to European sites are not identified.

These projects will include the inherent mitigation set out in Section 11.2. The progression of these projects with the inherent mitigation identified and guided by the policies and procedures for project development in place, will enable the avoidance significant effects such as construction impacts, habitat loss, effects on SPAs/SACs, effects on residential receptors, and cultural heritage and landscape features.

The Draft Grid IP has focused significant focus on future learning objectives, prioritisation of data gathering and retention, and action based monitoring processes. There are also commitments for knowledge transfer through collaboration, stakeholder engagement and data sharing processes. Overall the policies and objectives within the Draft Grid IP ensure the protection – and in some instances enhancement – of the environment.

In addition to the policies and objectives set out in the Draft Grid IP all future projects will be subject to the recommendations and the SEA monitoring framework proposed within this Draft SEA ER.

---

<sup>79</sup> Note that EirGrid is not aware of any potential for conflict between the Draft Grid IP policies, and any future planning conditions, if/when granted However that for the avoidance of any doubt any conditions from planning authorities will take precedence over the draft policies in this Draft Grid IP

Consideration of potential effects from alternatives to the plan has also been provided and an assessment of potential cumulative effects has been undertaken, with a potential significant effect being identified in relation to the Marine area in relation to potential effects on cetaceans and other marine life including sea birds. Mitigation has been proposed in relation to this potential effect.

It is considered that the Draft Grid IP, the objectives and policies within the plan, and the mitigation/recommendations proposed as part of the SEA which build on the inherent mitigation, will contribute to the sustainable development of the transmission system in Ireland over the next six years and beyond.

### **14.1 Response to Consultation**

Consultation is currently underway for the Draft IP, DRAFT SEA ER and NIR.

### **14.2 Next Steps**

Once the Draft Grid IP has been published, the monitoring framework set out within the SEA Statement will be used to assess the impacts of the implementation. This will also be used to inform the future revision of the Draft Grid IP on a six-yearly basis.



## LIST OF ABBREVIATIONS

Abbreviation	Explanation
AA	Appropriate Assessment
AC	Alternating Current
ACAs	Architectural Conservation Areas
AFF	Alternative Fuels Infrastructure for Transport
BAU	Business Area Units
BNM	Bord na Móna
CAFE	Cleaner Air for Europe
CER	Commission of Energy Regulation
CFRAM	Catchment Flood Risk Assessment and Management
CIP	Capital Investment Plan
CLC	CORINE Land Cover
CO2	Carbon Dioxide
CSO	Central Statistics Office
DAA	Dublin Airport Authority
DAFM	Department of Agriculture, Food and the Marine
DAHRRG	Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs
DC	Direct Current
DECLG	Department of the Environment, Community and Local Government
DECNR	Department of Energy, Communications and Natural Resources
DEHLG	Department of Environment, Heritage and Local Government
DSO	Distribution System Operator
EAG	Environmental Advisory Group
EAR	Environmental Appraisal Report
EBES	Evidence Based Environmental Studies
EC	European Commission
EEA	European Economic Area
EEC	European Economic Communities
EIA	Environmental Impact Assessment
ELC	European Landscape Convention
ELF	Extremely Low Frequency
ELIG	Environmental Law Implementation Group
EMF	Electromagnetic Fields
EMM	Environmental Mitigation Measure
EPA	Environmental Protection Agency

Abbreviation	Explanation
ESB	Electricity Supply Board
ETS	Emissions Trading Scheme
EU	European Union
FEPS	Forestry Environmental Protection Scheme
FIPS	Forest Inventory Planning System
FRMP	Flood Risk Management Plan
FWPM	Freshwater Pearl Mussel
GDP	Gross Domestic Product
GES	Good Environmental Status
GHG	Greenhouse Gas
GIS	Geographic Information Systems
GSI	Geological Survey Ireland
GSNI	Geological Survey of Northern Ireland
HI	Healthy Ireland
HTLS	High-Temperature Low-Sag
HVAC	High Voltage Alternating Current
HVDC	High Voltage Direct Current
IAE	Ireland's Ancient East
IDA	Industrial Development Authority
IEP	Independent Expert Panel
IFI	Inland Fisheries Ireland
IGH	Irish Geological Heritage
IGHS	Irish Geological Heritage Sites
IP	Implementation Plan
IRBD	International River Basin District
IROPI	Imperative Reasons of Overriding Public Interest
ITS	Irish Transmission System
IWAI	Inland Waterways Association Ireland
IWEA	Irish Wind Energy Association
JNCC	Joint Nature Conservation Committee
kV	kilovolt
LCAs	Landscape Character Areas
M	Modify
MW	Megawatt
MW	Mid-West
NB	New Build

Abbreviation	Explanation
NBP	National Biodiversity Plan
NDP	National Development Plan
NEEAP	National Energy Efficiency Action Plan
NHA	National Heritage Area
NIAH	National Inventory of Architectural Heritage
NIEA	Northern Ireland Environment Agency
NIS	Natura Impact Statement
NLS	National Landscape Strategy
NMP	National Mitigation Plan
NPF	National Planning Framework
NPWS	National Park and Wildlife Service
NRA	National Roads Authority
NSDB	National Soil Database
NSS	National Spatial Strategy
OHL	Overhead Line
OPW	Office of Public Works
OREDP	Offshore Renewable Energy Development Plan
OSI	Ordinance Survey Ireland
PAH	Polycyclic Aromatic Hydrocarbons
pNHA	Proposed National Heritage Area
PM	Particulate Matter
PPP	Plans, Policies and Programmes
RBD	River Basin District
RBMP	River Basin Management Plan
RD	Redevelopment
RES	Renewable Energy Sources
RMPs	Record of Monuments and Places
ROI	Republic of Ireland
RPII	Radiological Protection Institute of Ireland
RPSs	Record of Protected Structures
RR	Refurbish/ Replace
RSES	Regional Spatial and Economic Strategies
RSPB	Royal Society for the Protection of Birds
RTE	Réseau de transport d'électricité
SAC	Special Area of Conservation
SEA	Strategic Environmental Assessment

Abbreviation	Explanation
<b>SEAI</b>	Sustainable Energy Authority in Ireland
<b>SEF</b>	Strategic Environmental Framework
<b>SEMO</b>	Single Electricity Market Operator
<b>SEOs</b>	Strategic Environmental Objectives
<b>SFM</b>	Sustainable Forest Management
<b>SHARP</b>	Sustainable Healthy Agri-Food Research Plan
<b>SONI</b>	System Operator in Northern Ireland
<b>SPAs</b>	Special Protection Areas
<b>TAO</b>	Transmission Asset Owner
<b>TDP</b>	Transmission Development Programme
<b>TII</b>	Transport Infrastructure Ireland
<b>TSO</b>	Transmission System Operator
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organisation
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>WAW</b>	Wild Atlantic Way
<b>WEEE</b>	Waste Electrical and Electronic Equipment
<b>WFD</b>	Water Framework Directive
<b>WHO</b>	World Health Organisation
<b>WSSP</b>	Water Services Strategic Plan

## GLOSSARY

Term	Description
<b>Administrative Area</b>	A portion of a country or other region delineated for the purpose of administration.
<b>Afforestation</b>	The planting or seeding of trees in an area previously devoid of trees.
<b>Alluvium</b>	A deposit of clay, silt, and sand left by flowing floodwater in a river valley or delta, typically producing fertile soil.
<b>Annex I</b>	List of designated habitats which have been afforded protection under the Habitats Directive.
<b>Annex II</b>	List of protected species which have been afforded protection under the Habitats Directive.
<b>Appropriate Assessment</b>	Comprehensive ecological impact assessment of a plan or project. AA examines the direct and indirect effects of the Draft Grid IP or project, either individually or in-combination with other plans and projects on Natura 2000 sites.
<b>Architectural Conservation Areas</b>	An Architectural Conservation Area is a place, area, group of structures or townscape of special architectural, historical, archaeological, artistic, cultural, scientific, social or technical interest or that contributes to the appreciation of a Protected Structure, and whose character should be preserved.
<b>Baseline Condition</b>	The prevailing environmental condition in the absence of a programme or plan.
<b>Birds Directive</b>	Outlines measures necessary to protect all of the 500 wild bird species naturally occurring in the European Union.
<b>Bord Bia</b>	Irish state agency with the aim of promoting sales of Irish food and horticulture both abroad and in Ireland itself. It acts as a link between Irish producers and their customers worldwide.
<b>Bord na Móna</b>	Utility company service provider encompassing electricity, heating solutions, resource recovery, water, horticulture and related services.
<b>Catchment</b>	The total area of land that drains into a watercourse.
<b>Coillte</b>	Commercial company operating in forestry, land-based businesses, renewable energy and panel products.
<b>County Development Plan</b>	The principal instrument that is used to manage change in land use in a County. These plans outline the objectives and policies to deliver an overall strategy for planning and sustainable development of the area of the Development Plan.
<b>Desilting</b>	The removal of suspended silt from (the water of a stream).
<b>Electromagnetic Fields</b>	Combination of invisible electric and magnetic fields of force. They are generated by natural phenomena like the Earth's magnetic field but also by human activities, mainly through the use of electricity.
<b>Emissions Trading System</b>	International system for trading greenhouse gas emission allowances.
<b>Environmental Impact Assessment</b>	Sets the statutory requirement for member states of the EU to carry out assessments of the environmental impact of certain public and private projects

Term	Description
<b>Directive</b>	before they are allowed to go ahead.
<b>Erosion</b>	The process of eroding or being eroded by wind, water, or other natural agents.
<b>Fens</b>	An area of low land that is covered wholly or partly with water unless artificially drained and that usually has peaty alkaline soil and characteristic flora (as of sedges and reeds).
<b>Finite Resource</b>	A resource that cannot renew itself at a sufficient rate for sustainable economic extraction in meaningful human timeframes.
<b>Flood Risk Management Plan</b>	These plans set out a range of proposed measures and actions to manage and reduce flood risk within the catchments and coastal reaches covered by each Plan.
<b>Food Harvest 2020</b>	Strategic vision for the agriculture, food and fishing sector up to 2020.
<b>Forest Environmental Scheme</b>	Encourages farmers to combine the establishment of high nature-value woodland with their participation in the Rural Environment Protection Scheme.
<b>Geochemistry</b>	The study of the distribution and amounts of the chemical elements in minerals, rocks, soils, water, and the atmosphere, and the study of the circulation of the elements in nature, on the basis of the properties of their atoms and ions.
<b>Geo-demographic</b>	Data of a specific geographical area which profiles the economic and demographic characteristics of the population living there.
<b>Geological Heritage Site</b>	Areas of geologic features with significant scientific, educational, cultural, or aesthetic value.
<b>Glacial</b>	Relating to, caused by, or deposited by a glacier.
<b>Greenhouse Gas</b>	A gas that contributes to the greenhouse effect by absorbing infrared radiation.
<b>Habitat</b>	The place where an organism or species normally lives and is characterised by its physical characteristics and/or dominant type of vegetation.
<b>Horticulture</b>	Cultivation and management of plants.
<b>Hydro Generation</b>	Electricity generated from the gravitational force of falling or flowing water.
<b>Invasive Species</b>	Non-native plant and animal species which can negatively impact on native species, transforming habitats and threatening whole ecosystems causing serious problems to the environment and the economy.
<b>Kyoto Protocol</b>	International treaty which extends the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits State Parties to reduce greenhouse gases emissions, based on the premises that global warming exists, and man-made carbon dioxide emissions have caused it.
<b>Landscape Character Assessment</b>	The process of identifying and describing variation in character of the landscape.
<b>Milk Quota</b>	Quota introduced in the European Union which helped to cap the expansion of milk production. Applied to milk from cows only. The quota has now been removed.
<b>Mitigation</b>	The implementation of measures designed to reduce the undesirable effects of a proposed action on the environment.

Term	Description
<b>National Biodiversity Plan</b>	Plan outlining a range of measures to secure the conservation, including where possible the enhancement and sustainability of biological diversity in Ireland and worldwide.
<b>National Development Plan</b>	Roadmap to Ireland's future. The Draft Grid IP integrated strategic development frameworks for regional development, for rural communities, for All-Island co-operation, and for protection of the environment with common economic and social goals.
<b>National Framework Policy</b>	Policy serving as the foundation upon which the range of State policies, programmes and interventions for local and community development will be developed and implemented.
<b>Natural Heritage Areas</b>	An area of national nature conservation importance, designated under the Wildlife Act 1976 (as amended), for the protection of features of high biological or earth heritage value or for its diversity of natural attributes.
<b>National Landscape Strategy</b>	Strategy outlining Ireland's responsibility to comply with the European Landscape Convention. It is a high-level policy framework to achieve balance between the protection, management and planning of the landscape by way of supporting actions.
<b>National Spatial Strategy</b>	National planning framework for Ireland for the next 20 years. The NSS aims to achieve a better balance of social, economic and physical development across Ireland, supported by more effective planning.
<b>Natura 2000 Sites</b>	The EU-wide network of SPA and SAC nature conservation sites.
<b>Nutrient Pollution</b>	Excessive input of nutrients, mainly nitrogen and phosphorus in water bodies leading to excessive growth of algae and oxygen depletion.
<b>Organic Matter</b>	Carbon-based compounds found within natural or engineered terrestrial and aquatic environments.
<b>Overgrazing</b>	Excessive level of grazing which damages vegetation and increases the liability of surrounding ground to erosion.
<b>Ozone</b>	A colourless unstable toxic gas with a pungent odour and powerful oxidizing properties, formed from oxygen by electrical discharges or ultraviolet light. It differs from normal oxygen (O <sub>2</sub> ) in having three atoms in its molecule (O <sub>3</sub> ).
<b>Particulate Matter</b>	A mixture of solid particles and liquid droplets found in the air. Some particles can be seen by the naked eye and others are microscopic.
<b>Physico-chemical</b>	The physical and chemical properties of a substance.
<b>Polycyclic Aromatic Hydrocarbon</b>	A group of chemicals that are formed during the incomplete burning of organic substances.
<b>Raised Bog</b>	Discreet, raised, dome-shaped masses of peat occupying former lakes or shallow depressions in the landscape. Raised bogs in Ireland are mainly found in the midlands.
<b>RAMSAR Site</b>	Wetland site of international importance designated under the RAMSAR Convention on Wetlands of International Importance 1971, primarily because of its importance for waterfowl.
<b>River Basin District</b>	RBDs are natural geographical and hydrological units for water management, as defined by the WFD. River basins are used instead of administrative or political

Term	Description
	boundaries.
<b>Special Area of Conservation</b>	An area designated in accordance with the EU Directive on the conservation of habitats and wild flora and fauna (92/43/EEC) for the protection of species and habitats of conservation concern within the EU.
<b>Special Protection Area</b>	An area designated in accordance with the EU Directive on the Conservation of Wild Birds (79/409/EEC) for the specific protection of wild birds.
<b>Strategic Environmental Objectives</b>	Methodological measures against which the environmental effects of the Implementation Programme (IP) can be tested.
<b>Sustainable Forest Management</b>	The environmentally appropriate, socially beneficial, and economically viable management of forests for present and future generations.
<b>Thermal Generation</b>	Electricity generated from heat sources including coal, gas, wood waste and geothermal.
<b>Trace Elements</b>	A chemical element present in minute quantities.
<b>Transitional Water</b>	Surface water bodies in the vicinity of a river mouth which are partly saline in character as a result of their close proximity to coastal waters, but which are substantially influenced by freshwater flows.
<b>Transmission Grid</b>	An electrical supply distribution network that carries electricity from a power plant to the user.
<b>Transmission System Operator</b>	Entity entrusted with transporting energy in the form of natural gas or electrical power on a national or regional level, using fixed infrastructure.
<b>Transposing Legislation</b>	Primary or secondary legislation adopted by a European country which gives force to a European Union Directive.
<b>UNESCO Biosphere Site</b>	Areas of terrestrial and coastal ecosystems promoting solutions to reconcile the conservation of biodiversity with its sustainable use.
<b>UNESCO World Heritage Site</b>	Sites of outstanding universal value: cultural, natural or mixed.
<b>Urbanisation</b>	The process by which towns and cities are formed and become larger as more and more people begin living and working in central areas.
<b>Water Framework Directive</b>	EU Water Framework Directive 2000/60/EC sets out a system for the integrated and sustainable management of river basins so that the ecological quality of waters is maintained in at least a good state or is restored. The Directive lays down a six-yearly cycle of river basin planning.



## REFERENCES

- Bord na Móna. 2015. *Sustainability 2030* [Online]. Available from: [http://www.bordnamona.ie/wp-content/uploads/2016/01/Sustainability\\_Statement\\_2015.pdf](http://www.bordnamona.ie/wp-content/uploads/2016/01/Sustainability_Statement_2015.pdf) [Accessed 5 September 2012].
- Central Statistics Office (2022). 2022 Census. Preliminary Results <https://www.cso.ie/>
- Central Statistics Office. 2011. Census 2011 Ireland and Northern Ireland.
- Central Statistics Office. 2016. *Aviation Statistics*. [ONLINE] Available from: <http://www.cso.ie/en/releasesandpublications/er/as/aviationstatistics2015/>. [Accessed 3 August 2016].
- Central Statistics Office. 2016. *Statistics of Port Traffic 2015*. [ONLINE] Available from: <http://www.cso.ie/en/releasesandpublications/er/spt/statisticsofporttraffic2015/>. [Accessed 3 August 2016].
- CIEEM (2019). Guidelines for Ecological Impact Assessment in the UK and Ireland. Terrestrial, Freshwater, Coastal and Marine. <https://cieem.net/resource/guidelines-for-ecological-impactassessment-ecia/>
- CIRIA. 2011. 'Control of Water Pollution from Construction Sites, Guidance for Consultants and Contractors'
- Colhoun and Cummins, 2013. Birds of Conservation Concern in Ireland 2014 – 2019. Accessed: 19/09/2018. Available at: <https://www.birdwatchireland.ie/LinkClick.aspx?fileticket=EjODk32LNcU%3D&tabid=178>
- DAFM (2022) Ireland's Forestry Strategy 2017-2022 <https://assets.gov.ie/237557/a425b8a9-0dc5-458b-9aa9-682456f89fdb.pdf>
- DECC (2021) Policy Statement on the Framework for Ireland's Offshore Electricity Transmission System <https://assets.gov.ie/134847/bd02ef78-75b2-4174-a160-4946c69a7b5d.pdf>
- Department of Agriculture, Environment and Rural Affairs, 2018. Northern Ireland Environmental Statistics Report. Accessed: 20/08/2018. Available at: [https://www.daera-ni.gov.uk/sites/default/files/publications/daera/ni-environmental-statistics-report-2018\\_1.pdf](https://www.daera-ni.gov.uk/sites/default/files/publications/daera/ni-environmental-statistics-report-2018_1.pdf)
- Department of Arts, Heritage and the Gaeltacht. 2011. *A National Landscape Strategy for Ireland 2015 – 2025*. [Online] Available from: <http://www.ahrrga.gov.ie/app/uploads/2015/07/N-Landscape-Strategy-english-Web.pdf>. [Accessed 4 August 2016].
- Department of Arts, Heritage and the Gaeltacht. 2011. *Actions for Biodiversity 2011-2016, Ireland's National Biodiversity Plan*. [Online] Available from: <https://www.npws.ie/sites/default/files/general/national-biodiversity-plan-english.pdf>. [Accessed 4 August 2016].
- Department of Business, Enterprise and Innovation, Ireland and the Impacts of Brexit, Strategic Implications for Ireland Arising from Changing EU-UK Trading Relations. Accessed: 12/09/2018. Available at: <https://dbei.gov.ie/en/Publications/Publication-files/Ireland-and-the-Impacts-of-Brexit.pdf>
- Department of Business, Enterprise and Innovation, Ireland and the Impacts of Brexit, Strategic

Implications for Ireland Arising from Changing EU-UK Trading Relations. Accessed: 12/09/2018.  
Available at: <https://dbei.gov.ie/en/Publications/Publication-files/Ireland-and-the-Impacts-of-Brexit.pdf>

- Department of Communications, Energy and Natural Resources. 2014. *Offshore Renewable Energy Development Plan*. [Online] Available from: <http://www.dccae.gov.ie/energy/SiteCollectionDocuments/Renewable-Energy/20140204%20DECC%20>
- Department of Communications, Marine and Natural Resources, Geological Survey of Ireland, Irish Landslides Working Group. 2006. *Landslides in Ireland*. [Online] Available from: [https://www.gsi.ie/NR/rdonlyres/829D5C0E-3E21-429F-88E3-82F899D11CA2/0/Landslidesin\\_Ireland.pdf](https://www.gsi.ie/NR/rdonlyres/829D5C0E-3E21-429F-88E3-82F899D11CA2/0/Landslidesin_Ireland.pdf). [Accessed 3 August 2016].
- Department of Communications, Marine and Natural Resources. 2007. *Government White Paper. Delivering a Sustainable Energy Future for Ireland - The Energy Policy Framework 2007-2020*. [Online] Available from: [http://www.seai.ie/About\\_Energy/Energy\\_Policy/European\\_Union\\_Drivers/EnergyWhitePaper12March2007.pdf](http://www.seai.ie/About_Energy/Energy_Policy/European_Union_Drivers/EnergyWhitePaper12March2007.pdf). [Accessed 11 August 2016].
- Department of Environment, Community and Local Government. 2015. *Towards a National Planning Framework. A Roadmap for the delivery of the National Planning Framework 2016*. [Online] Available from:
- Department of Environment, Heritage and Local Government. 2006. *S.I. No. 140/2006 - Environmental Noise Regulations 2006*. Ireland. Office of the Attorney General.
- Department of Finance. 2007. *National Development Plan 2007-2013*. Dublin. The Stationery Office.
- Department of Health, Social Services and Public Safety. 2015. *Health Survey Northern Ireland First Results 2014/15*. [Online] Available from: <https://www.health-ni.gov.uk/sites/default/files/publications/dhssps/hsni-first-results-14-15.pdf>. [Accessed August 2016].
- Department of the Marine and Natural Resources. 2000. *Code of Best Forest Practice Ireland*. Dublin. Forest Service.
- DHLGH (2022) Heritage Ireland 2030. A Framework for Heritage. <https://www.heritagecouncil.ie/news/news-features/heritage-ireland-2030>
- DHLGH (2022). Strategic Environmental Assessment: Guidelines for Regional Assemblies and Planning Authorities <https://www.gov.ie/en/publication/7e1aa-strategic-environmental-assessment-guidelines-for-regional-assemblies-and-planning-authorities/>
- Dublin Port Company. 2012. *Masterplan (2012-2040)*. [Online] Available at: [http://www.dublinport.ie/fileadmin/user\\_upload/documents/Dublin\\_Port\\_Masterplan.pdf](http://www.dublinport.ie/fileadmin/user_upload/documents/Dublin_Port_Masterplan.pdf). [Accessed 3 August 2016].
- EC (2020). EU Biodiversity Strategy. [https://environment.ec.europa.eu/strategy/biodiversitystrategy-2030\\_en#:~:text=The%20EU's%20biodiversity%20strategy%20for,contains%20specific%20actions%20and%20commitments.](https://environment.ec.europa.eu/strategy/biodiversitystrategy-2030_en#:~:text=The%20EU's%20biodiversity%20strategy%20for,contains%20specific%20actions%20and%20commitments.)
- EC (2022) EU Soil Strategy for 2030 Reaping the benefits of healthy soils for people, food, nature and climate. <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0699>
- EirGrid (2021). Document Reference: CDS-GFS-00-001-R1 110 kV, 220 kV and 400 kV Underground Cable Functional Specification <https://www.eirgridgroup.com/site->

files/library/EirGrid/110kV-Underground-Cable-FunctionalSpecification-General-Requirements.pdf )

- EirGrid (2022a). Storymap: SEA Monitoring of the Grid Implementation Plan 2017-2022. Unpublished Draft. [Will be available in early 2023 at <https://www.eirgridgroup.com/about/in-the-community/environment/sea-and-aa-of-grid-implem/index.xml> ]
- EirGrid (2022b). Community Benefit Policy <https://www.eirgridgroup.com/site-files/library/EirGrid/209130-EirGrid-Community-Benefit-Policy-A4-Report-final.pdf>
- EirGrid 2012. EirGrid Ecology Guidelines for Electricity Transmission Projects - A Standard Approach to Ecological Impact Assessment of High Voltage Transmission Projects.
- EirGrid 2012. Environmental Report for the *GRID25 Implementation Programme 2011-2016, Strategic Environmental Assessment*. EirGrid .
- EirGrid 2012. *GRID25 Implementation Programme 2011-2016*. EirGrid .
- EirGrid 2014. *EMF & You, Information about Electric & Magnetic Fields and the electricity transmission system in Ireland*. EirGrid .
- EirGrid 2014. *Evidence Based Environmental Studies. Study 1: EMF*. EirGrid .
- EirGrid 2015. *Your Grid, Your Views, Your Tomorrow. A Discussion Paper on Ireland’s Grid Development Strategy*.
- EirGrid 2015a. *Evidence Based Environmental Studies. Study 2: Cultural Heritage*. EirGrid .
- EirGrid 2015b. *Evidence Based Environmental Studies. Study 3: Bats*. EirGrid .
- EirGrid 2016b. *Evidence Based Environmental Studies. Study 5: Birds*. EirGrid .
- EirGrid 2016c. *Evidence Based Environmental Studies. Study 6: Water Quality & Aquatic Ecology*. EirGrid
- EirGrid 2016d. *Evidence Based Environmental Studies. Study 7: Soils & Geology*. EirGrid .
- EirGrid 2016e. *Evidence Based Environmental Studies. Study 8: Noise*. EirGrid .
- EirGrid 2016g. *Evidence Based Environmental Studies. Study 10: Landscape & Visual*. EirGrid .
- EirGrid 2017. *Celtic Interconnector Feasibility Study*.
- EirGrid 2017. *Ireland’s Grid Development Strategy, Your Grid, Your Tomorrow*.
- EirGrid 2016a. *Evidence Based Environmental Studies. Study 4: Habitats*. EirGrid .
- EirGrid 2016f. *Evidence Based Environmental Studies. Study 9: Settlement and Land Use*. EirGrid .
- Environmental Protection Agency Ireland’s Environment Land & Soil (2016)
- Environmental Protection Agency. 2002. *Towards Setting Environmental Quality Objectives for Soil. Developing a Soil Strategy for Ireland*. Ireland. Environmental Protection Agency.
- Environmental Protection Agency. 2010. *Focus on Landfilling in Ireland*. Ireland. Environmental Protection Agency.
- Environmental Protection Agency. 2012. *“The second update report on data presented in the EPA report ‘ Focus on Urban Wastewater Discharges in Ireland’. Urban Wastewater Treatment in 2011*. [Online] Available from: <https://www.epa.ie/pubs/reports/water/wastewater/uww/Urban%20Waste%20Water%20Treatment%20in%202011.pdf>. [Accessed 4 August 2016].

- Environmental Protection Agency. 2013. *Ireland's Greenhouse Gas Emission Projections 2012-2030*.
- Environmental Protection Agency. 2014. *CORINE Land Cover 2012.Ireland. Final Report*. Ireland. Environmental Protection Agency.
- Environmental Protection Agency. 2015. *Air Quality in Ireland 2014*.Ireland. Environmental Protection Agency.
- Environmental Protection Agency. 2015. *Water Quality in Ireland 2010-2012*.Ireland. Environmental Protection Agency.
- Environmental Protection Agency. 2016. *Greenhouse Gas Emission Projections to 2020 - An update*. [Online] Available from:  
[https://www.epa.ie/pubs/reports/air/airemissions/2020\\_GHG\\_Projections\\_2016\\_Bulletin.pdf](https://www.epa.ie/pubs/reports/air/airemissions/2020_GHG_Projections_2016_Bulletin.pdf). [Accessed 9
- Environmental Protection Agency. 2016. *Sixth State of the Environment Report*. Environmental Protection Agency
- EPA (2003). EPA Synthesis Report <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmentalassessment/development-of-sea-methodologies-for-plans-and-programmes-in-ireland-.php>
- EPA (2008). SEA Process Checklist – Consultation Draft  
<https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmentalassessment/SEA-Process-Checklist.pdf>
- EPA (2013). Integrated Biodiversity Impact Assessment  
<https://www.epa.ie/publications/research/biodiversity/final-report-integrated-biodiversity-impactassessment-streamlining-aa-sea-and-eia-processes-----best-practice-guidance.php>
- EPA (2015a). SEA Resource Manual for Local and Regional Planning Authorities  
<https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmentalassessment/SEA-Resource-Manual-for-Planning-Authorities.pdf>
- EPA (2015b). Developing and Assessing Alternatives in SEA  
[https://www.epa.ie/publications/research/biodiversity/EPA-157\\_web.pdf](https://www.epa.ie/publications/research/biodiversity/EPA-157_web.pdf)
- EPA (2017). GISEA Manual – Improving the Evidence Base in SEA  
<https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmentalassessment/gisea-manual.php>
- EPA (2019). EPA Integrating Climatic Factors into SEA  
<https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmentalassessment/EPA-SEA-Climatic-Factors-Guidance-Note.pdf>
- EPA (2020a). Guidance on SEA Statements and Monitoring  
<https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmentalassessment/guidance-on-sea-statements-and-monitoring.php>
- EPA (2020b). Ireland’s Environment – An Integrated Assessment 2020 – Nature <https://www.epa.ie/publications/monitoring--assessment/assessment/state-of-the-environment/EPA-Ireland’sEnvironment-2020-Chapter6.pdf>
- EPA (2021a). Good practice note on SEA for the Energy Sector  
<https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmentalassessment/good-practice-note-on-sea-for-the-energy-sector.php>

- EPA (2021b). Research 391: Tiering of Environmental Assessment – The Influence of Strategic Environmental Assessment on Project-level Environmental Impact Assessment <https://www.epa.ie/publications/research/epa-research-2030-reports/research-391-tiering-of-environmental-assessment--the-influence-of-strategic-environmental-assessment-on-project-level-environmental-impact-assessment.php>
- EPA (2022b). EPA SEA Pack <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/sea-pack.php>
- EPA (2022c). Summary Report: Water Quality in Ireland: 2016-2021. [https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/WaterQuality\\_SummaryReport.pdf](https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/WaterQuality_SummaryReport.pdf)
- EPA (2022d). Water Quality in Ireland: 2016-2021. [https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/EPA\\_WaterQualityReport2016\\_2021.pdf](https://www.epa.ie/publications/monitoring--assessment/freshwater--marine/EPA_WaterQualityReport2016_2021.pdf)
- European Commission. 2013. *Overview of CAP Reform 2014-2020*. [Online] Available from: [http://ec.europa.eu/agriculture/policy-perspectives/policy-briefs/05\\_en.pdf](http://ec.europa.eu/agriculture/policy-perspectives/policy-briefs/05_en.pdf). [Accessed 3 August 2016].
- Failte Ireland (2015-2019). Environmental Surveying and Monitoring Programme. Wild Atlantic Way Operational Programme. <https://www.failteireland.ie/Regional-experience-brands/Wild-Atlantic-Way/The-Wild-Atlantic-Way-Operational-Programme/Environmental-Surveying-and-Monitoring-Programme.aspx>
- Failte Ireland (2022). Irish Resident Travel by County: 2019 and 2021 <https://www.failteireland.ie/FailteIreland/media/WebsiteStructure/Documents/Publications/Domestic-Trips-and-Revenue-by-County-2019-and-2021.pdf?ext=.pdf>
- Fálite Ireland. 2013. The Gathering. Ireland 2013. Final Report.
- Fálite Ireland. 2017. [Online] Available from: <http://www.failteireland.ie/FailteIreland/files/04/04b6bc6b-df5a-47b7-9b7d-9c60ff8af8a3.pdf>
- González, A., Therivel, R., Gaughran, A., Bullock, C. (2020). Guidance on Strategic Environmental Assessment (SEA) Statements and Monitoring <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmental-assessment/guidance-on-sea-statements-and-monitoring.php>
- González, A., Bullock, C., Gaughran, A. and Watkin-Bourne, K. (2019). Towards a better understanding of SEA effectiveness in Ireland. Impact Assessment and Project Appraisal. <https://www.tandfonline.com/doi/abs/10.1080/14615517.2019.1580475>
- Government of Ireland (2021). Climate Action Plan 2021 <https://www.gov.ie/en/publication/6223e-climate-action-plan-2021/>
- Government of Ireland (2022a). Ireland's COVID-19 Data Hub <https://covid19ireland-geohive.hub.arcgis.com/pages/detailed-profile-of-cases>
- Government of Ireland (2022b). Project Ireland 2040 Prospects 2022 Ireland's Major Infrastructure Project Pipeline. <https://www.gov.ie/en/press-release/dc3d2-minister-mcgrath-publishes-the-prospects-2022-report/>
- Government of Ireland (2022c). Food Vision 2030. <https://www.gov.ie/pdf/?file=https://assets.gov.ie/179717/910771f6-05ed-43f1-b8ce-52ef7c602710.pdf#page=18>
- Government of Ireland (2022d). Pathway to 51% reduction in economy-wide emissions agreed – McConalogue confirms 25% reduction in agricultural emissions. <https://www.gov.ie/en/press->

release/40b39-pathway-to-51-reduction-in-economy-wide-emissionsagreed-mcconalogue-confirms-25-reduction-in-agricultural-emissions/

- Iarnród Éireann. 2015. *Network Statement 2015*. [Online] Available from: [http://www.irishrail.ie/media/ie\\_2015\\_network\\_statement\\_m.pdf](http://www.irishrail.ie/media/ie_2015_network_statement_m.pdf). Ireland. Iarnród Éireann
- ICNIRP (2020) Guidelines for Limiting Exposure to Electromagnetic Fields (100 kHz To 300 GHz) <https://www.icnirp.org/cms/upload/publications/ICNIRPrfgdl2020.pdf>
- International Commission on Non-Ionizing Radiation Protection (ICNIRP) 2010. Guidelines on exposure Ireland. Environmental Protection Agency
- Levett-Therivel sustainability consultants (2021). EPA Good practice note on SEA for the Energy Sector. [https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmentalassessment/EPA\\_GoodPractice\\_SEA\\_EnergySector.pdf](https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmentalassessment/EPA_GoodPractice_SEA_EnergySector.pdf)
- Murnane et al. 2006. CIRIA C648. Control of water pollution from linear construction projects. Technical Guidance.
- Murnane et al. 2006. CIRIA C648. Control of water pollution from linear construction projects. Site Guide.
- National Roads Authority. 2006. *Guidelines on Procedures for Assessment and Treatment of Geology, Hydrology and Hydrogeology for National Road Schemes*. Ireland. National Roads Authority.
- NPWS (2019). The Status of EU Protected Habitats and Species in Ireland. Volumes 1-3. <https://www.npws.ie/publications/article-17-reports>
- OPW (2021). The Review of the Flood Risk Management Plans Report – December 2021 <https://assets.gov.ie/212525/4d18e191-10d6-4b38-9827-3b097dea2cf0.pdf>
- OSI (2022). Prime 2 data (Digital Landscape Model Core). Release Date April 2022.
- Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) 2015. Final Opinion on Potential health effects of exposure to electromagnetic fields.
- Secretariat of the Convention on Biological Diversity (2022) Global Biodiversity Outlook SUMMARY FOR POLICYMAKERS.
- Sustainable Energy Authority of Ireland. 2015. *Energy in Ireland, Key Statistics 2015*. Ireland. Sustainable Energy Authority of Ireland.
- Teagasc (2021). Hedgerow Planting Guidance. <https://www.teagasc.ie/news--events/daily/environment/how-to-plant-a-hedge.php>
- The Heritage Council. 2011. *Record of Protected Structures Draft List Version 3*. [Online] Available from: [http://www.heritagecouncil.ie/fileadmin/user\\_upload/Publications/Architecture/Heritage\\_Council\\_RPS\\_2011](http://www.heritagecouncil.ie/fileadmin/user_upload/Publications/Architecture/Heritage_Council_RPS_2011)
- The Sustainable Energy Authority of Ireland. 2010. *Strategic Plan 2010-2015*. Ireland. Sustainable Energy Authority of Ireland.
- Therivel, R. (2010) Strategic environmental assessment in action. Earthscan, Abingdon.
- Torsney, A., & Buckley, Y. M. (2023). Visitor demographics, site-type and activities determine the occurrence and severity of environmental impacts at nature-based tourist

destinations. *Ecological Solutions and Evidence*, 4(1).

- Tourism Ireland (2022). SOAR (Situation & Outlook Analysis Report) June 2022. <https://www.tourismireland.com/TourismIreland/media/Tourism-Ireland/Research/SOAR-June.pdf?ext=.pdf> [Accessed 3 August 2016].
- EPA (2022a). SEA Spatial Information Sources Inventory. May 2022. <https://www.epa.ie/publications/monitoring--assessment/assessment/strategic-environmentalassessment/sea-spatial-information-sources-inventory-.php>

## Websites

- An Taisce. Ireland's Peatlands. [Online] Available from: <http://www.antaisce.org/issues/irelands-peatlands>. [Accessed 3 August 2016].
- An Taisce. 2016. Blue Flag Ireland. [Online] Available from: <http://www.blueflagireland.org/locations.10.html>. [Accessed 3 August 2016].
- BirdWatch Ireland. 2016. Birds of Conservation Concern. [Online] Available from: <http://www.birdwatchireland.ie/OurWork/SpeciesHabitatConservationinIreland/BirdsofConservationConcern/tabid/178/Default.aspx> [Accessed 11 October 2016].
- Bord Bia. Factsheet on Irish Agriculture and Food and Drink Sector. [Online] Available from: <http://www.bordbia.ie/industry/buyers/industryinfo/agri/pages/default.aspx>. [Accessed 3 August 2016].
- Bord na Mona. Articles. [Online] Available from: <http://www.bordnamona.ie/company/news/articles/bord-na-mona-announces-biggest-change-of-land-use-in-modern-irish-history/>. [Accessed 3 August 2016].
- Colite. Business Area Unit Strategic Plans and Forest Management Plans [Online] Available from: [http://www.coillte.ie/coillteforest/plans/previous\\_business\\_area\\_unit\\_bau\\_strategic\\_plans\\_and\\_forest\\_management\\_plans\\_2011\\_2015/business\\_area\\_unit\\_bau\\_strategic\\_plans\\_2011\\_2015/](http://www.coillte.ie/coillteforest/plans/previous_business_area_unit_bau_strategic_plans_and_forest_management_plans_2011_2015/business_area_unit_bau_strategic_plans_2011_2015/). [Accessed 11 October 2016]
- CSO, Census 2016 [Online] Available from: <https://www.cso.ie/en/media/csoie/newsevents/documents/census2016summaryresultspart1/Census2016SummaryPart1.pdf>
- Department of Arts, Heritage and the Gaeltacht. 2016. Historic Environmental Viewer. [Online] Available from: <http://webgis.archaeology.ie/historicenvironment/>. [Accessed 2 August 2016].
- Department of Health. 2015. Health in Ireland Key Trends 2015. [Online] Available from: <http://health.gov.ie/blog/publications/health-in-ireland-key-trends-2015/>. [Accessed August 2016].
- EPA. Air Quality Zones. [Online] Available from: <http://www.epa.ie/air/quality/zones/>. [Accessed 9 August 2016].
- EPA. Groundwater. [Online] Available from: <http://www.epa.ie/water/wm/groundwater/>. [Accessed 4 August 2016].
- EPA. Land and Soil. [Online] Available from: <http://www.epa.ie/irelandsenvironment/landandsoil/>. [Accessed 2 August 2016].

- EPA. River Basin Management Plans. [Online] Available from: <http://www.epa.ie/water/watmg/wfd/rbmp/>. [Accessed 4 August 2016].
- EPA. What are Ireland's Greenhouse Gas Emissions? [Online] Available from: <http://www.epa.ie/climate/communicatingclimatescience/whatisclimatechange/whatareirelandsgreenhousegasemissionslike/>. [Accessed 9 August 2016].
- EPA. What impact will Climate Change have for Ireland? [Online] Available from: <http://www.epa.ie/climate/communicatingclimatescience/whatisclimatechange/whatimpactwillclimatechangehaveforireland/>. [Accessed 11 August 2016].
- ESB. 2016. Generation Asset Map. [Online] Available from: <https://www.esb.ie/our-businesses/generation-energy-trading-new/generation-asset-map>. [Accessed 3 August 2016].
- European Commission. Agriculture. [Online] Available from: [http://ec.europa.eu/ireland/news/key-eu-policy-areas/agriculture\\_en](http://ec.europa.eu/ireland/news/key-eu-policy-areas/agriculture_en). [Accessed 3 August 2016].
- European Commission. Soil. [Online] Available from: [http://ec.europa.eu/environment/soil/process\\_en.htm](http://ec.europa.eu/environment/soil/process_en.htm). [Accessed 2 August 2016].
- European Commission. The new EU Forest Strategy. [Online] Available from: [http://ec.europa.eu/agriculture/forest/strategy/index\\_en.htm](http://ec.europa.eu/agriculture/forest/strategy/index_en.htm). [Accessed 3 August 2016].
- European Environment Agency. Policy Context. [Online] Available from: <http://www.eea.europa.eu/themes/agriculture/policy-context>. [Accessed 3 August 2016].
- Government of Ireland. 2018. NPF. National Planning Framework [online] Available from: <http://npf.ie/wp-content/uploads/Project-Ireland-2040-NPF.pdf>
- GSI. Geology and Cuisine of Ireland. [Online] Available from: <https://www.gsi.ie/Education/Geology+and+Cuisine+of+Ireland.htm>. [Accessed 2 August 2016].
- Grid Network Services. Line uprate photo. [Online] Available [www.gridns.com](http://www.gridns.com)
- Invasive Species Ireland. Most Unwanted. [Online] Available from: <http://invasivespeciesireland.com/most-unwanted-species/established/>. [Accessed 4 August 2016].
- Invasive Species Ireland. Setting your Priorities. [Online] Available from: <http://invasivespeciesireland.com/toolkit/invasive-plant-management/setting-your-priorities/>. [Accessed 4 August 2016]
- Irish Trails. National Trails Office. [Online] Available from: <http://www.irishtrails.ie/>. [Accessed 3 August 2016].
- NPWS. Freshwater Pearl Mussel. [Online] Available from: <http://www.npws.ie/research-projects/animal-species/invertebrates/freshwater-pearl-mussel>. [Accessed 5 August 2016].
- NPWS. Natural Heritage Areas. [Online] Available from: <http://www.npws.ie/protected-sites/nha>. [Accessed 4 August 2016].
- NPWS. Special Areas of Conservation. [Online] Available from: <http://www.npws.ie/protected-sites/sac>. [Accessed 4 August 2016].
- NPWS. Special Protection Areas. [Online] Available from: <http://www.npws.ie/protected-sites/spa>. [Accessed 4 August 2016].



- RAMSAR. Ireland. [Online] Available from: <http://www.ramsar.org/wetland/ireland>. [Accessed 4 August 2016].
- Teagasc. Irish Soil Information System. [Online] Available from: <http://gis.teagasc.ie/soils/>. [Accessed 2 August 2016].
- TII. Our Road Network. [Online] Available from: <http://www.tii.ie/roads-tolling/our-road-network/>. [Accessed 2 August 2016].
- UNESCO. Tentative Lists. [Online] Available from: <http://webgis.archaeology.ie/historicenvironment/>. [Accessed 2 August 2016].
- UNESCO. List. [Online] Available from: <http://whc.unesco.org/en/list/>. [Accessed 2 August 2016].
- UNFCCC. Kyoto Protocol. [Online] Available from: [http://unfccc.int/kyoto\\_protocol/items/3145.php](http://unfccc.int/kyoto_protocol/items/3145.php). [Accessed 9 August 2016].
- Water Matters. WFD. [Online] Available from: <http://www.wfdireland.ie/wfd-rpa.html>. [Accessed 4 August 2016].

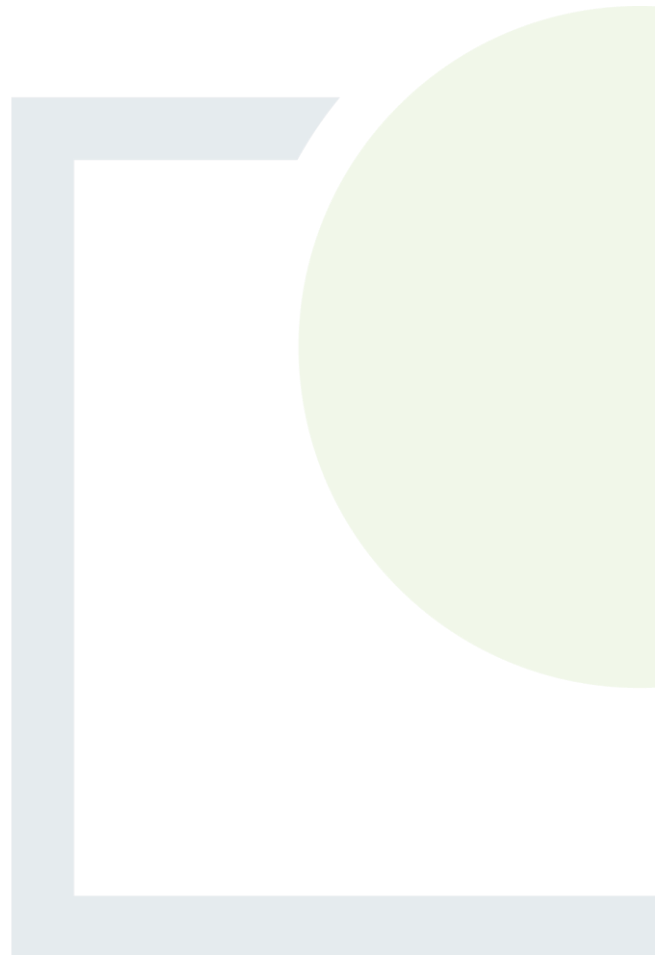


**FEHILY  
TIMONEY**

**CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE  
& PLANNING**

## **APPENDIX A**

**Relevant Legislation, Plans &  
Programmes**





This appendix is not intended to be a full and comprehensive review of EU Directives, the transposing regulations or the regulatory framework for environmental protection and management. The information is not exhaustive and it is recommended to consult the Directive, Regulation, Plan or Programme to become familiar with the full details of each.

Legislation, Plan, etc.	Summary of high level aim/ purpose/ objective	Summary of lower level objectives, actions etc.	Relevance to the Plan
<b>European Level</b>			
<b>SEA Directive (2001/42/EC)</b>	<ul style="list-style-type: none"> <li>Contribute to the integration of environmental considerations into the preparation and adoption of plans and programmes with a view to promoting sustainable development.</li> <li>Provide for a high level of protection of the environment by carrying out an environmental assessment of plans and programmes which are likely to have significant effects on the environment.</li> </ul>	<ul style="list-style-type: none"> <li>Carry out an environmental assessment for plans or programmes referred to in Articles 2 to 4 of the Directive.</li> <li>Prepare an environmental report which identifies, describes and evaluates the likely significant effects on the environment of implementing the plan or programme and reasonable alternatives that consider the objectives and the geographical scope of the plan or programme.</li> <li>Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission.</li> <li>Consult other Member States where the implementation of a plan or programme is likely to have transboundary environmental effects.</li> <li>Inform relevant authorities and stakeholders on the decision to implement the plan or programme.</li> <li>Issue a statement to include requirements detailed in Article 9 of the Directive.</li> <li>Monitor and mitigate significant environmental effects identified by the assessment.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>EIA Directive (2011/92/EU as amended)</b>	<ul style="list-style-type: none"> <li>Requires the assessment of the environmental effects of public and private projects which are likely to have</li> </ul>	<ul style="list-style-type: none"> <li>All projects listed in Annex I are considered as having significant effects on the environment and require an EIA.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and



<p><b>2014/52/EU)</b></p>	<p>significant effects on the environment.</p> <ul style="list-style-type: none"> <li>Aims to assess and implement avoidance or mitigation measures to eliminate environmental effects, before consent is given of projects likely to have significant effects on the environment by virtue, inter alia, of their nature, size or location are made subject to a requirement for development consent and an assessment with regard to their effects. Those projects are defined in Article 4.</li> </ul>	<ul style="list-style-type: none"> <li>For projects listed in Annex II, a "screening procedure" is required to determine the effects of projects on the basis of thresholds/criteria or a case by case examination. This should take into account Annex III.</li> <li>The environmental impact assessment shall identify, describe and assess in an appropriate manner, in the light of each individual case and in accordance with Articles 4 to 12, the direct and indirect effects of a project on the following factors: human beings, fauna and flora, soil, water, air, climate and the landscape, material assets and the cultural heritage, the interaction between each factor.</li> <li>Consult with relevant authorities, stakeholders and public allowing sufficient time to make a submission before a decision is made.</li> </ul>	<p>align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Habitats Directive (92/43/EEC)</b></p>	<ul style="list-style-type: none"> <li>Promote the preservation, protection and improvement of the quality of the environment, including the conservation of natural habitats and of wild fauna and flora.</li> <li>Contribute towards ensuring biodiversity through the conservation of natural habitats and of wild fauna and flora.</li> <li>Maintain or restore to favourable conservation status, natural habitats and species of wild fauna and flora of community interest.</li> <li>Promote the maintenance of biodiversity, taking account of economic, social, cultural and regional requirements.</li> </ul>	<ul style="list-style-type: none"> <li>Propose and protect sites of importance to habitats, plant and animal species.</li> <li>Establish a network of European sites hosting the natural habitat types listed in Annex I and habitats of the species listed in Annex II, to enable the natural habitat types and the species' habitats concerned to be maintained or, where appropriate, restored at a favourable conservation status in their natural range.</li> <li>Carry out comprehensive assessment of habitat types and species present.</li> <li>Establish a system of strict protection for the animal species and plant species listed in Annex IV.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Birds Directive)</b></p>	<ul style="list-style-type: none"> <li>Conserve all species of naturally</li> </ul>	<ul style="list-style-type: none"> <li>Preserve, maintain or re-establish a sufficient</li> </ul>	<p>Implementation of the Plan</p>



<p><b>(2009/147/EC)</b></p>	<p>occurring birds in the wild state including their eggs, nests and habitats.</p> <ul style="list-style-type: none"> <li>Protect, manage and control these species and comply with regulations relating to their exploitation.</li> <li>The species included in Annex I shall be the subject of special conservation measures concerning their habitat in order to ensure their survival and reproduction in their area of distribution.</li> </ul>	<p>diversity and area of habitats for all the species of birds referred to in Annex 1.</p> <ul style="list-style-type: none"> <li>Preserve, maintain and establish biotopes and habitats to include the creation of protected areas (Special Protection Areas).</li> <li>Ensure the upkeep and management in accordance with the ecological needs of habitats inside and outside the protected zones, re-establish destroyed biotopes and creation of biotopes.</li> <li>Measures for regularly occurring migratory species not listed in Annex I is required as regards their breeding, moulting and wintering areas and staging posts along their migration routes. The protection of wetlands and particularly wetlands of international importance.</li> </ul>	<p>needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EU Bathing Water Directive (revised) 2006 [2006/7/EC]</b></p>	<ul style="list-style-type: none"> <li>The purpose of this Directive is to preserve, protect and improve the quality of the environment and to protect human health by complementing Directive 2000/60/EC</li> </ul>	<p>This Directive lays down provisions for:</p> <ul style="list-style-type: none"> <li>the monitoring and classification of bathing water quality;</li> <li>the management of bathing water quality; and</li> <li>the provision of information to the public on bathing water quality</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EU Nitrates Directive (91/676/EC)</b></p>	<ul style="list-style-type: none"> <li>Reducing water pollution caused or induced by nitrates from agricultural sources and - preventing further such pollution.</li> </ul>	<p>Ireland’s Nitrates Action Programme is designed to prevent pollution of surface waters and ground water from agricultural sources and to protect and improve water quality. Ireland’s third NAP came into operation in 2014. Each Member State’s NAP must</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in</p>



		include: <ul style="list-style-type: none"> <li>• a limit on the amount of livestock manure applied to the land each year</li> <li>• set periods when land spreading is prohibited due to risk</li> <li>• set capacity levels for the storage of livestock manure</li> </ul>	combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>EU Integrated Pollution Prevention Control Directive (2008/1/EC)</b>	<ul style="list-style-type: none"> <li>• The purpose of this Directive is to achieve integrated prevention and control of pollution arising from the activities listed in Annex I. It lays down measures designed to prevent or, where that is not practicable, to reduce emissions in the air, water and land from the abovementioned activities, including measures concerning waste, in order to achieve a high level of protection of the environment taken as a whole, without prejudice to Directive 85/337/EEC and other relevant Community provisions.</li> </ul>	The IPPC Directive is based on several principles: <ul style="list-style-type: none"> <li>• an integrated approach</li> <li>• best available techniques,</li> <li>• flexibility; and</li> <li>• public participation</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>EU Plant Protection (products) Directive 2009/127/EC</b>	<ul style="list-style-type: none"> <li>• The Directive aims at reducing the risks and impacts of pesticide use on human health and</li> <li>• the environment by introducing different targets, tools and measures such as Integrated Pest Management (IPM) or National Action Plans (NAPs).</li> </ul>	<ul style="list-style-type: none"> <li>• The Framework Directive applies to pesticides which are plant protection products.</li> <li>• Regarding pesticide application equipment already in professional use, the Framework Directive introduces requirements for the inspection and maintenance to be carried out on such equipment.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>EU Renewables</b>	<ul style="list-style-type: none"> <li>• The Renewable Energy Directive</li> </ul>	<ul style="list-style-type: none"> <li>• The Directive promotes cooperation amongst EU</li> </ul>	Implementation of the Plan



<p><b>Directive (2009/28/EC)</b></p>	<p>establishes an overall policy for the production and promotion of energy from renewable sources in the EU.</p> <ul style="list-style-type: none"> <li>• It requires the EU to fulfil at least 20% of its total energy needs with renewables by 2020 – to be achieved through the attainment of individual national targets.</li> <li>• All EU countries must also ensure that at least 10% of their transport fuels come from renewable sources by 2020.</li> </ul>	<p>countries (and with countries outside the EU) to help them meet their renewable energy targets.</p> <ul style="list-style-type: none"> <li>• The Directive specifies national renewable energy targets for each country, taking into account its starting point and overall potential for renewables.</li> <li>• EU countries set out how they plan to meet these targets and the general course of their renewable energy policy in national renewable energy action plans.</li> <li>• Progress towards national targets is measured every two years when EU countries publish national renewable energy progress reports.</li> </ul>	<p>needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Indirect Land Use Change Directive (2012/0288(COD))</b></p>	<ul style="list-style-type: none"> <li>• Article 3(4) of Directive 2009/28/EC of the European Parliament and of the Council (3) requires Member States to ensure that the share of energy from renewable energy sources in all forms of transport in 2020 is at least 10 % of their final energy consumption.</li> <li>• The blending of biofuels is one of the methods available for Member States to meet this target, and is expected to be the main contributor.</li> <li>• Other methods available to meet the target are the reduction of energy consumption, which is imperative because a mandatory percentage target for energy from renewable sources is likely to become increasingly difficult to achieve sustainably if overall demand for energy for transport continues to rise,</li> </ul>	<ul style="list-style-type: none"> <li>• Limit the contribution that conventional biofuels (with a risk of ILUC emissions) make towards attainment of the targets in the Renewable Energy Directive;</li> <li>• Improve the greenhouse gas performance of biofuel production processes (reducing associated emissions) by raising the greenhouse gas saving threshold for new installations subject to protecting installations already in operation on 1st July 2014;</li> <li>• Encourage a greater market penetration of advanced (low- ILUC) biofuels by allowing such fuels to contribute more to the targets in the Renewable Energy Directive than conventional biofuels;</li> <li>• Improve the reporting of greenhouse gas emissions by obliging Member States and fuel suppliers to report the estimated indirect land-use change emissions of biofuels.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



	and the use of electricity from renewable energy sources.		
<b>Alternative Fuels Infrastructure Directive (2014/94/EU)</b>	<ul style="list-style-type: none"> <li>This Directive establishes a common framework of measures for the deployment of alternative fuels infrastructure in the Union in order to minimise dependence on oil and to mitigate the environmental impact of transport.</li> </ul>	<ul style="list-style-type: none"> <li>This Directive sets out minimum requirements for the building-up of alternative fuels infrastructure, including recharging points for electric vehicles and refueling points for natural gas (LNG and CNG) and hydrogen, to be implemented by means of Member States' national policy frameworks, as well as common technical specifications for such recharging and refueling points, and user information requirements.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>EU Energy Efficiency Directive (2012/27/EU)</b>	<ul style="list-style-type: none"> <li>Establishes a set of binding measures to help the EU reach its 20% energy efficiency target by 2020.</li> <li>Under the Directive, all EU countries are required to use energy more efficiently at all stages of the energy chain, from production to final consumption.</li> </ul>	<ul style="list-style-type: none"> <li>Energy distributors or retail energy sales companies have to achieve 1.5% energy savings per year through the implementation of energy efficiency measures</li> <li>EU countries can opt to achieve the same level of savings through other means, such as improving the efficiency of heating systems, installing double glazed windows or insulating roofs</li> <li>The public sector in EU countries should purchase energy efficient buildings, products and services</li> <li>Every year, governments in EU countries must carry out energy efficient renovations on at least 3% (by floor area) of the buildings they own and occupy</li> <li>Energy consumers should be empowered to better manage consumption. This includes easy and free access to data on consumption through individual metering</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.





		<ul style="list-style-type: none"> <li>National incentives for SMEs to undergo energy audits</li> <li>Large companies will make audits of their energy consumption to help them identify ways to reduce it</li> <li>Monitoring efficiency levels in new energy generation capacities.</li> </ul>	
<b>EU Seveso Directive (2012/18/EU)</b>	<ul style="list-style-type: none"> <li>This Directive lays down rules for the prevention of major accidents which involve dangerous substances, and the limitation of their consequences for human health and the environment, with a view to ensuring a high level of protection throughout the Union in a consistent and effective manner.</li> </ul>	<p>The Seveso Directive is well integrated with other EU policies, thus avoiding double regulation or other administrative burden. This includes the following related policy areas:</p> <ul style="list-style-type: none"> <li>Classification, labelling and packaging of chemicals;</li> <li>The Union's Civil Protection Mechanism;</li> <li>The Security Union Agenda including CBRN-E and Protection of critical infrastructure;</li> <li>Policy on environmental liability and on the protection of the environment through criminal law;</li> <li>Safety of offshore oil and gas operations.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>EU Maritime Spatial Planning Directive (2014/89/EU)</b>	<ul style="list-style-type: none"> <li>This Directive establishes a framework for maritime spatial planning aimed at promoting the sustainable growth of maritime economies, the sustainable development of marine areas and the sustainable use of marine resources.</li> </ul>	<ul style="list-style-type: none"> <li>Each Member State shall establish and implement maritime spatial planning.</li> <li>In doing so, Member States shall take into account land-sea interactions.</li> <li>The resulting plan or plans shall be developed and produced in accordance with the institutional and governance levels determined by Member States. This Directive shall not interfere with Member States' competence to design and determine the format and content of that plan or those plans.</li> <li>Maritime spatial planning shall aim to contribute to the objectives listed in Article 5 and fulfil the requirements laid down in Articles 6 and 8.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.



		<ul style="list-style-type: none"> <li>When establishing maritime spatial planning, Member States shall have due regard to the particularities of the marine regions, relevant existing and future activities and uses and their impacts on the environment, as well as to natural resources, and shall also take into account land-sea interactions.</li> <li>Member States may include or build on existing national policies, regulations or mechanisms that have been or are being established before the entry into force of this Directive, provided they are in conformity with the requirements of this Directive.</li> </ul>	
<b>UK Marine Policy Statement</b>	<ul style="list-style-type: none"> <li>Achieving a sustainable marine economy</li> <li>Ensuring a strong, healthy and just society</li> <li>Living within environmental limits</li> <li>Promoting good governance</li> <li>Using sound science responsibly</li> </ul>	<p>The MPS will facilitate and support the formulation of Marine Plans, ensuring that marine resources are used in a sustainable way in line with the high level marine objectives and thereby:</p> <ul style="list-style-type: none"> <li>Promote sustainable economic development;</li> <li>Enable the UK's move towards a low-carbon economy, in order to mitigate the causes of climate change and ocean acidification and adapt to their effects;</li> <li>Ensure a sustainable marine environment which promotes healthy, functioning marine ecosystems and protects marine habitats, species and heritage assets; and</li> <li>Contribute to the societal benefits of the marine area, including the sustainable use of marine resources to address local social and economic issues</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Marine and Coastal Access Act 2009</b>	<ul style="list-style-type: none"> <li>Aims to provide the legal mechanism to help ensure clean, healthy, safe, productive and biologically diverse</li> </ul>	<p>The Marine Act comprises eight key elements:</p> <ul style="list-style-type: none"> <li>Marine Management Organisation (MMO)</li> <li>Strategic Marine Planning System</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and</p>



	oceans and seas by putting in place a new system for improved management and protection of the marine and coastal environment.	<ul style="list-style-type: none"> <li>Streamlined Marine Licensing System</li> <li>Marine Nature Conservation</li> <li>Fisheries Management and Marine Enforcement</li> <li>Migratory and Freshwater Fisheries</li> <li>Coastal Access</li> <li>Coastal and Estuarine Management</li> </ul>	align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Marine (Northern Ireland) Act 2013</b>	<ul style="list-style-type: none"> <li>Aims to provide for marine plans in relation to the Northern Ireland inshore region; to provide for marine conservation zones in that region; to make further provision in relation to marine licensing for certain electricity works in that region; and for connected purposes.</li> </ul>	<p>The Marine Act sets out a new framework for Northern Ireland’s seas based on: a system of marine planning that will balance conservation, energy and resource needs; improved management for marine nature conservation and the streamlining of marine licensing for some electricity projects. The main provisions of the Act are outlined below:</p> <ul style="list-style-type: none"> <li>Marine Planning</li> <li>Nature Conservation</li> <li>Marine Licensing</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>European Union Biodiversity Strategy to 2020</b>	<ul style="list-style-type: none"> <li>Aims to halt or reverse biodiversity loss and speed up the EU's transition towards a resource efficient and green economy.</li> <li>Halting the loss of biodiversity and the degradation of ecosystem services in the EU by 2020, and restoring them in so far as feasible.</li> </ul>	<ul style="list-style-type: none"> <li>Outlines six targets and twenty actions to aid European Union in halting the loss to biodiversity and eco-system services.</li> <li>The six targets cover:             <ul style="list-style-type: none"> <li>Full implementation of EU nature legislation to protect biodiversity</li> <li>Maintaining, enhancing and protecting for ecosystems, and green infrastructure</li> <li>Ensuring sustainable agriculture, and forestry</li> <li>Sustainable management of fish stocks</li> <li>Reducing invasive alien species</li> </ul> </li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.



		<ul style="list-style-type: none"> <li>○ Addressing the global need to contribute towards averting global biodiversity loss</li> </ul>	
<b>Biodiversity Strategy for 2030 - Bringing nature back into our lives (European Commission, 2020)</b>	<p>The EU’s biodiversity strategy for 2030 is a comprehensive, ambitious and long-term plan to protect nature and reverse the degradation of ecosystems. The strategy aims to put Europe's biodiversity on a path to recovery by 2030, and contains specific actions and commitments.</p>	<p>The Strategy contains specific commitments and actions to be delivered by 2030, including:</p> <ul style="list-style-type: none"> <li>• Establishing a larger EU-wide network of protected areas on land and at sea, building upon existing Natura 2000 areas, with strict protection for areas of very high biodiversity and climate value.</li> <li>• An EU Nature Restoration Plan - a series of concrete commitments and actions to restore degraded ecosystems across the EU by 2030, and manage them sustainably, addressing the key drivers of biodiversity loss.</li> <li>• A set of measures to enable the necessary transformative change: setting in motion a new, strengthened governance framework to ensure better implementation and track progress, improving knowledge, financing and investments and better respecting nature in public and business decision making.</li> <li>• Measures to tackle the global biodiversity challenge, demonstrating that the EU is ready to lead by example towards the successful adoption of an ambitious global biodiversity framework under the Convention on Biological Diversity.</li> </ul>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>EU Green Infrastructure Strategy</b>	<p>Aims to create a robust enabling framework in order to promote and facilitate Green Infrastructure (GI) projects.</p>	<ul style="list-style-type: none"> <li>• Promoting GI in the main EU policy areas.</li> <li>• Supporting EU-level GI projects.</li> <li>• Improving access to finance for GI projects.</li> <li>• Improving information and promoting innovation.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users</p>



			and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>UNESCO (1972) The Convention for the Protection of the World Cultural and Natural Heritage</b>	<ul style="list-style-type: none"> <li>links concepts of nature conservation and the preservation of cultural properties; and</li> <li>recognizes the way in which people interact with nature, and the fundamental need to preserve the balance between the two.</li> </ul>	<ul style="list-style-type: none"> <li>sets out the duties of States Parties in identifying potential sites and their role in protecting and preserving them;</li> <li>each country pledges to conserve not only the World Heritage sites situated on its territory, but also to protect its national heritage;</li> <li>encourages to integrate the protection of the cultural and natural heritage into regional planning programmes, set up staff and services at their sites, undertake scientific and technical conservation research and adopt measures which give this heritage a function in the day-to-day life of the community.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management
<b>UN (1992) The Convention on Biological Diversity</b>	An overall objective is to develop national strategies for the conservation and sustainable use of biological diversity.	The Convention has three main goals: <ul style="list-style-type: none"> <li>the conservation of biological diversity (or biodiversity);</li> <li>the sustainable use of its components; and</li> <li>the fair and equitable sharing of benefits arising from genetic resources.</li> </ul>	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others,



			potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>UN (1992) Framework Convention on Climate Change</b>	It is aimed at stabilising greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system.	The Convention acknowledges the vulnerability of all countries to the effects of climate change and calls for special efforts to ease the consequences, especially in developing countries which lack the resources to do so on their own.	Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>UN Kyoto Protocol (2nd Kyoto Period),</b>	The UN Kyoto Protocol set of policy measures to reduce greenhouse gas emissions.	<ul style="list-style-type: none"> <li>The Kyoto Protocol is implemented through the European Climate Change Programme (ECCP II).</li> </ul>	Implementation of the Plan needs to comply with all



<p><b>the Second European Climate Change Programme (ECCP II), Paris climate conference (COP21) 2015 (Paris Agreement)</b></p>	<p>The Second European Climate Change Programme (ECCP II) aims to identify and develop all the necessary elements of an EU strategy to implement the Kyoto Protocol.</p> <p>At the Paris climate conference (COP21) in December 2015, 195 countries adopted the first-ever universal, legally binding global climate deal. The agreement sets out a global action plan to put the world on track to avoid dangerous climate change by limiting global warming to well below 2°C.</p>	<ul style="list-style-type: none"> <li>• EU member states implement measures to improve on or compliment the specified measures and policies arising from the ECCP.</li> <li>• Under COP21, governments agreed to come together every 5 years to set more ambitious targets as required by science; report to each other and the public on how well they are doing to implement their targets; track progress towards the long-term goal through a robust transparency and accountability system.</li> </ul>	<p>environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EU 2020 Climate and Energy Package</b></p>	<ul style="list-style-type: none"> <li>• Binding legislation which aims to ensure the European Union meets its climate and energy targets for 2020.</li> <li>• Aims to achieve a 20% reduction in EU greenhouse gas emissions from 1990 levels.</li> <li>• Aims to raise the share of EU energy consumption produced from renewable resources to 20%.</li> <li>• Achieve a 20% improvement in the EU's energy efficiency.</li> </ul>	<p>Four pieces of complimentary legislation:</p> <ul style="list-style-type: none"> <li>• Reform of the EU Emissions Trading System (EU ETS) to include a cap on emission allowances in addition to existing system of national caps.</li> <li>• Member States have agreed national targets for non-EU ETS emissions from countries outside the EU.</li> <li>• Meet the national renewable energy targets of 16% for Ireland by 2020.</li> <li>• Preparing a legal framework for technologies in carbon capture and storage.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EU 2030 Framework for Climate and Energy</b></p>	<ul style="list-style-type: none"> <li>• A 2030 Framework for climate and energy, including EU-wide targets and policy objectives for the period between 2020 and 2030 that has been agreed by European countries.</li> <li>• Targets include a 40% cut in greenhouse gas emissions compared to 1990 levels,</li> </ul>	<p>To meet the targets, the European Commission has proposed the following policies for 2030:</p> <ul style="list-style-type: none"> <li>• A reformed EU emissions trading scheme (ETS).</li> <li>• New indicators for the competitiveness and security of the energy system, such as price differences with major trading partners, diversification of supply, and interconnection</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. –</p>



	<p>at least a 27% share of renewable energy consumption and at least 27% energy savings compared with the business-as-usual scenario.</p>	<p>capacity between EU countries.</p> <ul style="list-style-type: none"> <li>• First ideas for a new governance system based on national plans for competitive, secure, and sustainable energy. These plans will follow a common EU approach. They will ensure stronger investor certainty, greater transparency, enhanced policy coherence and improved coordination across the EU.</li> </ul>	<p>the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>The Clean Air for Europe Directive (2008/50/EC) (EU Air Framework Directive)</b>  <b>Fourth Daughter</b></p>	<ul style="list-style-type: none"> <li>• The CAFE Directive merges existing legislation into a single directive (except for the fourth daughter directive).</li> <li>• Sets new air quality objectives for PM2.5 (fine particles) including the limit value and exposure related objectives.</li> <li>• Accounts for the possibility to discount natural sources of pollution when assessing compliance against limit values.</li> <li>• Allows the possibility for time extensions of three years (PM10) or up to five years (NO2, benzene) for complying with limit values, based on conditions and the assessment by the European Commission.</li> <li>• The Fourth Daughter Directive lists pollutants, target values and monitoring requirements for the following: arsenic, cadmium, mercury, nickel and polycyclic aromatic hydrocarbons in ambient air.</li> </ul>	<ul style="list-style-type: none"> <li>• Sets objectives for ambient air quality designed to avoid, prevent or reduce harmful effects on human health and the environment as a whole.</li> <li>• Aims to assess the ambient air quality in Member States on the basis of common methods and criteria.</li> <li>• Obtains information on ambient air quality in order to help combat air pollution and nuisance and to monitor long-term trends and improvements resulting from national and community measures.</li> <li>• Ensures that such information on ambient air quality is made available to the public.</li> <li>• Aims to maintain air quality where it is good and improving it in other cases.</li> <li>• Aims to promote increased cooperation between the Member States in reducing air pollution.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>





<p><b>Noise Directive (2002/49/EC)</b></p>	<p>The Noise Directive - Directive 2002/49/EC relating to the assessment and management of environmental noise - is part of an EU strategy setting out to reduce the number of people affected by noise in the longer term and to provide a framework for developing existing Community policy on noise reduction from source.</p>	<p>The Directive requires competent authorities in Member States to:</p> <ul style="list-style-type: none"> <li>• Draw up strategic noise maps for major roads, railways, airports and agglomerations, using harmonised noise indicators and use these maps to assess the number of people which may be impacted upon as a result of excessive noise levels;</li> <li>• Draw up action plans to reduce noise where necessary and maintain environmental noise quality where it is good; and</li> <li>• Inform and consult the public about noise exposure, its effects, and the measures considered to address noise.</li> </ul> <p>The Directive does not set any limit value, nor does it prescribe the measures to be used in the action plans, which remain at the discretion of the competent authorities.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Floods Directive (2007/60/EC)</b></p>	<ul style="list-style-type: none"> <li>• Establishes a framework for the assessment and management of flood risks</li> <li>• Reduce adverse consequences for human health, the environment, cultural heritage and economic activity associated with floods in the Community</li> </ul>	<ul style="list-style-type: none"> <li>• Assess all water courses and coast lines at risk from flooding through Flood Risk Assessment</li> <li>• Prepare flood hazard maps and flood risk maps outlining the extent or potential of flooding and assets and humans at risk in these areas at River Basin District level (Article 3(2) (b)) and areas covered by Article 5(1) and Article 13(1) (b) in accordance with paragraphs 2 and 3.</li> <li>• Implement flood risk management plans and take adequate and coordinated measures to reduce flood risk for the areas covered by the Articles listed above.</li> <li>• Inform the public and allow the public to participate in planning process.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Water Framework</b></p>	<ul style="list-style-type: none"> <li>• Establish a framework for the protection</li> </ul>	<ul style="list-style-type: none"> <li>• Protect, enhance and restore all water bodies</li> </ul>	<p>Implementation of the Plan</p>



<p><b>Directive (2000/60/EC)</b></p>	<p>of water bodies to include inland surface waters, transitional waters, coastal waters and groundwater and their dependent wildlife and habitats.</p> <ul style="list-style-type: none"> <li>• Preserve and prevent the deterioration of water status and where necessary improve and maintain “good status” of water bodies.</li> <li>• Promote sustainable water usage.</li> <li>• The Water Framework Directive repealed the following Directives:           <ul style="list-style-type: none"> <li>◦ The Drinking Water Abstraction Directive</li> <li>◦ Sampling Drinking Water Directive</li> <li>◦ Exchange of Information on Quality of Surface Freshwater Directive</li> <li>◦ Shellfish Directive</li> <li>◦ Freshwater Fish Directive</li> <li>◦ Groundwater Directive</li> <li>◦ Dangerous Substances Directive</li> </ul> </li> </ul>	<p>and meet the environmental objectives outlined in Article 4 of the Directive.</p> <ul style="list-style-type: none"> <li>• Achieve "good status" for all waters.</li> <li>• Manage water bodies based on identifying and establishing river basins districts.</li> <li>• Involve the public and streamline legislation.</li> <li>• Prepare and implement a River Basin Management Plan for each river basin districts identified and a Register of Protected Areas.</li> <li>• Establish a programme of monitoring for surface water status, groundwater status and protected areas.</li> <li>• Recover costs for water services.</li> </ul>	<p>needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Groundwater Directive (2006/118/EC)</b></p>	<ul style="list-style-type: none"> <li>• Protect, control and conserve groundwater.</li> <li>• Prevent the deterioration of the status of all bodies of groundwater.</li> <li>• Implements measures to prevent and control groundwater pollution, including criteria for assessing good groundwater chemical status and criteria for the identification of significant and sustained upward trends and for the definition of starting points for trend reversals.</li> </ul>	<ul style="list-style-type: none"> <li>• Meet minimum groundwater standards listed in Annex 1 of Directive.</li> <li>• Meet threshold values adopted by national legislation for the pollutants, groups of pollutants and indicators of pollution which have been identified as contributing to the characterisation of bodies or groups of bodies of groundwater as being at risk, also taking into account Part B of Annex II.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Drinking Water</b></p>	<ul style="list-style-type: none"> <li>• Improve and maintain the quality of</li> </ul>	<ul style="list-style-type: none"> <li>• Set values applicable to water intended for</li> </ul>	<p>Implementation of the Plan</p>



<p><b>Directive (98/83/EC)</b></p>	<p>water intended for human consumption.</p> <ul style="list-style-type: none"> <li>• Protect human health from the adverse effects of any contamination of water intended for human consumption by ensuring that it is wholesome and clean.</li> </ul>	<p>human consumption for the parameters set out in Annex I.</p> <ul style="list-style-type: none"> <li>• Set values for additional parameters not included in Annex I, where the protection of human health within national territory or part of it so requires. The values set should, as a minimum, satisfy the requirements of Article 4(1) (a).</li> <li>• Implement all measures necessary to ensure that regular monitoring of the quality of water intended for human consumption is carried out, in order to check that the water available to consumers meets the requirements of this Directive and in particular the parametric values set in accordance with Article 5.</li> <li>• Ensure that any failure to meet the parametric values set in accordance with Article 5 is immediately investigated in order to identify the cause.</li> <li>• Ensure that the necessary remedial action is taken as soon as possible to restore its quality and shall give priority to their enforcement action.</li> <li>• Undertake remedial action to restore the quality of the water where necessary to protect human health.</li> <li>• Notify consumers when remedial action is being undertaken except where the competent authorities consider the non-compliance with the parametric value to be trivial.</li> </ul>	<p>needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Urban Waste Water Treatment Directive (91/271/EEC)</b></p>	<ul style="list-style-type: none"> <li>• This Directive concerns the collection, treatment and discharge of urban waste water and the treatment and discharge of waste water from certain industrial</li> </ul>	<ul style="list-style-type: none"> <li>• Urban waste water entering collecting systems shall before discharge, be subject to secondary treatment.</li> <li>• Annex II requires the designation of areas</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively</p>



	<p>sectors.</p> <ul style="list-style-type: none"> <li>The objective of the Directive is to protect the environment from the adverse effects of waste water discharges.</li> </ul>	<p>sensitive to eutrophication which receive water discharges.</p> <ul style="list-style-type: none"> <li>Establishes minimum requirements for urban waste water collection and treatment systems in specified agglomerations to include special requirements for sensitive areas and certain industrial sectors.</li> </ul>	<p>contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Environmental Liability Directive (2004/35/EC) as amended by Directive 2006/21/EC, Directive 2009/31/EC and Directive 2013/30/EU</b></p>	<ul style="list-style-type: none"> <li>Establish a framework of environmental liability based on the 'polluter-pays' principle, to prevent and remedy environmental damage.</li> </ul>	<ul style="list-style-type: none"> <li>Relates to environmental damage caused by any of the occupational activities listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities; damage to protected species and natural habitats caused by any occupational activities other than those listed in Annex III, and to any imminent threat of such damage occurring by reason of any of those activities, whenever the operator has been at fault or negligent.</li> <li>Where environmental damage has not yet occurred but there is an imminent threat of such damage occurring, the operator shall, without delay, take the necessary preventive measures. Where environmental damage has occurred the operator shall, without delay, inform the competent authority of all relevant aspects of the situation and take all practicable steps to immediately control, contain, remove or otherwise manage the relevant contaminants and/or any other damage factors in order to limit or to prevent further environmental damage and adverse effects on human health or further impairment of services and the necessary remedial measures, in accordance with Article 7.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



		<ul style="list-style-type: none"> <li>• The operator shall bear the costs for the preventive and remedial actions taken pursuant to this Directive.</li> <li>• The competent authority shall be entitled to initiate cost recovery proceedings against the operator.</li> <li>• The operator may be required to provide financial security guarantees to ensure their responsibilities under the directive are met.</li> <li>• The Environmental Liability Directive has been amended through a number of Directives that are not of significant relevance to the SEA for the Guidelines. Implementation of the Environmental Liability Directive is contributed towards by a Multi-Annual Work Programme (MAWP) 'Making the Environmental Liability Directive more fit for purpose' that is updated annually to changing developments, growing</li> <li>• knowledge and new needs.</li> </ul>	
<p><b>Marine Strategy Framework Directive (2008/56/EC), as amended</b></p>	<ul style="list-style-type: none"> <li>• The aim of the European Union's ambitious Marine Strategy Framework Directive is to protect more effectively the marine environment across Europe.</li> </ul>	<p>The Directive provides various requirements, including:</p> <ul style="list-style-type: none"> <li>• Completion of an initial assessment of Irish marine waters;</li> <li>• Establishment of establish environmental targets and indicators;</li> <li>• Establishment of a monitoring programme;</li> <li>• Establishment of a programme of measures; and</li> <li>• Implementation of the programme of measures and monitoring programme.</li> </ul> <p>Implementation of the Directive is contributed towards by a set of detailed criteria and methodological standards that were revised in 2017 leading to a Commission Decision on “laying down</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



		criteria and methodological standards on good environmental status of marine waters and specifications and standardised methods for monitoring and assessment, and repealing Decision 2010/477/EU". Annex III "Indicative lists of characteristics, pressures and impacts" of the Directive was amended in 2017.	
<b>European Convention on the Protection of the Archaeological Heritage (Valletta 1992)</b>	<ul style="list-style-type: none"> <li>The aim of this (revised) Convention is to protect the archaeological heritage as a source of the European collective memory and as an instrument for historical and scientific study.</li> </ul>	The Valletta Convention makes the conservation and enhancement of the archaeological heritage one of the goals of urban and regional planning policies. The Convention sets guidelines for the funding of excavation and research work and publication of research findings. It also deals with public access, in particular to archaeological sites, and educational actions to be undertaken to develop public awareness of the value of the archaeological heritage. It also constitutes an institutional framework for pan-European co-operation on the archaeological heritage, entailing a systematic exchange of experience and experts among the various States.	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Convention of the Protection of the Architectural Heritage of Europe (Granada 1995)</b>	<ul style="list-style-type: none"> <li>The main purpose of the Convention is to reinforce and promote policies for the conservation and enhancement of Europe's heritage. It also affirms the need for European solidarity with regard to heritage conservation and is designed to foster practical co- operation among the Parties. It establishes the principles of "European co-ordination of conservation policies" including consultations regarding the thrust of the policies to be implemented.</li> </ul>	<ul style="list-style-type: none"> <li>The reinforcement and promotion of policies for protecting and enhancing the heritage within the territories of the parties.</li> <li>The affirmation of European solidarity with regard to the protection of the heritage and the fostering of practical co- operation between states and regions.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.



<p><b>ICOMOS (2011) Principles for the Conservation of Industrial Heritage Sites, Structures, Areas and Landscapes ('Dublin Principles')</b></p>	<p>It is aimed to assist in the documentation, protection, conservation and appreciation of industrial heritage as part of the heritage of human societies around the World.</p>	<ul style="list-style-type: none"> <li>• (I) Document and understand industrial heritage structures, sites, areas and landscapes and their values;</li> <li>• (II) Ensure effective protection and conservation of the industrial heritage structures, sites, areas and landscapes;</li> <li>• (III) Conserve and maintain the industrial heritage structures, sites, areas and landscapes; and</li> <li>• (IV) Present and communicate the heritage dimensions and values of industrial structures, sites, areas and landscapes to raise public and corporate awareness, and support training and research.</li> </ul>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Council of Europe Framework Convention on the Value of Cultural Heritage for Society (Faro 2005)</b></p>	<ul style="list-style-type: none"> <li>• Cultural heritage is a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions. It includes all aspects of the environment resulting from the interaction between people and places through time.</li> <li>• A heritage community consists of people who value specific aspects of cultural heritage which they wish, within the framework of public action, to sustain and transmit to future generations.</li> </ul>	<ul style="list-style-type: none"> <li>• Recognise that rights relating to cultural heritage are inherent in the right to participate in cultural life, as defined in the Universal Declaration of Human Rights.</li> <li>• Recognise individual and collective responsibility towards cultural heritage.</li> <li>• Emphasise that the conservation of cultural heritage and its sustainable use have human development and quality of life as their goal.</li> <li>• Take the necessary steps to apply the provisions of this Convention concerning the role of cultural heritage in the construction of a peaceful and democratic society.</li> <li>• Greater synergy of competencies among all the</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



<p><b>European Landscape Convention 2000</b></p>	<ul style="list-style-type: none"> <li>The developments in agriculture, forestry, industrial and mineral production techniques, together with the practices followed in town and country planning, transport, networks, tourism and recreation, and at a more general level, changes in the world economy, have in many cases accelerated the transformation of landscapes. The Convention expresses a concern to achieve sustainable development based on a balanced and harmonious relationship between social needs, economic activity and the environment. It aims to respond to the public's wish to enjoy high quality landscapes.</li> </ul>	<p>public, institutional and private actors concerned.</p> <ul style="list-style-type: none"> <li>Promote protection, management and planning of landscapes.</li> <li>Organise European co-operation on landscape issues.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>The Seventh Environmental Action Programme (EAP) of the European Community (2013-2020)</b></p>	<p>It identifies three key objectives:</p> <ul style="list-style-type: none"> <li>to protect, conserve and enhance the Union's natural capital</li> <li>to turn the Union into a resource-efficient, green, and competitive low-carbon economy</li> <li>to safeguard the Union's citizens from environment-related pressures and risks to health and wellbeing</li> </ul>	<p>Four so called "enablers" will help Europe deliver on these objectives (goals):</p> <ul style="list-style-type: none"> <li>Better implementation of legislation.</li> <li>Better information by improving the knowledge base.</li> <li>More and wiser investment for environment and climate policy.</li> <li>Full integration of environmental requirements and considerations into other policies.</li> </ul> <p>Two additional horizontal priority objectives complete the programme:</p> <ul style="list-style-type: none"> <li>To make the Union's cities more sustainable.</li> <li>To help the Union address international environmental and climate challenges more effectively.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>





<p><b>Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats)</b></p>	<p>The convention has three main aims:</p> <ul style="list-style-type: none"> <li>• to conserve wild flora and fauna and their natural habitats</li> <li>• to promote cooperation between states</li> <li>• to give particular attention to endangered and vulnerable species including endangered and vulnerable migratory species</li> </ul>	<p>The Parties under the convention recognise the intrinsic value of nature, which needs to be preserved and passed to future generations, they also:</p> <ul style="list-style-type: none"> <li>• Seek to ensure the conservation of nature in their countries, paying particular attention to planning and development policies and pollution control.</li> <li>• Look at implementing the Bern Convention in central Eastern Europe and the Caucus.</li> <li>• Take account of the potential impact on natural heritage by other policies.</li> <li>• Promote education and information of the public, ensuring the need to conserve species is understood and acted upon.</li> <li>• Develop an extensive number of species action plans, codes of conducts, and guidelines, at their own initiative or in co- operation with other organisations.</li> <li>• Created the Emerald Network, an ecological network made up of Areas of Special Conservation Interest.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Bali Road Map (2007)</b></p>	<p>The overall goals of the project are twofold:</p> <ul style="list-style-type: none"> <li>• To increase national capacity to co-ordinate ministerial views, participate in the UNFCCC process, and negotiate positions within the timeframe of the Bali Action Plan; and</li> <li>• To assess investment and financial flows to address climate change for up to three key sectors and/or economic activities.</li> </ul>	<p>The Bali Action Plan is centred on four main building Blocks:</p> <ul style="list-style-type: none"> <li>• mitigation</li> <li>• adaptation</li> <li>• technology</li> <li>• financing</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Cancun Agreements</b></p>	<p>Set of decisions taken at the COP 16</p>	<p>Among the most prominent agreements is the</p>	<p>Implementation of the Plan</p>



<p><b>(2010)</b></p>	<p>Conference in Cancun in 2010 which addresses a series of key issues in the fight against climate change. Cancun Agreements' main objectives cover:</p> <ul style="list-style-type: none"> <li>• Mitigation</li> <li>• Transparency of actions</li> <li>• Technology</li> <li>• Finance</li> <li>• Adaptation</li> <li>• Forests</li> <li>• Capacity building</li> </ul>	<p>establishment of a Green Climate Fund to transfer money from the developed to developing world to tackle the impacts of climate change.</p>	<p>needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Doha Climate Gateway (2012)</b></p>	<p>Set of decisions taken at the COP 18 meeting in Doha in 2012 which pave the way for a new agreement in Paris in 2015.</p>	<p>The following actions were committed to by governments at this conference:</p> <ul style="list-style-type: none"> <li>• Set out a timetable to adopt a universal climate agreement by 2015 (to come into effect in 2020);</li> <li>• Complete the work under Bali Action Plan and to focus on new completing new targets;</li> <li>• Strengthen the aim to cut greenhouse gases and help vulnerable countries to adapt; Amend Kyoto Protocol to include a new commitment period for cutting down the greenhouse gases emissions; and</li> <li>• Provide the financial and technology support and new institutions to allow clean energy investment and sustainable growth in developing countries.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EU Common Agricultural Policy</b></p>	<ul style="list-style-type: none"> <li>• To improve agricultural productivity, so that consumers have a stable supply of affordable food; and</li> <li>• To ensure that EU farmers can make a reasonable living.</li> </ul>	<ul style="list-style-type: none"> <li>• ensuring viable food production that will contribute to feeding the world's population, which is expected to rise considerably in the future;</li> <li>• Climate change and sustainable management of natural resources;</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users</p>



		<ul style="list-style-type: none"> <li>Looking after the countryside across the EU and keeping the rural economy alive.</li> </ul>	and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>EU REACH Regulation (EC 1907/2006)</b>	<ul style="list-style-type: none"> <li>Aims to improve the protection of human health and the environment through the better and earlier identification of the intrinsic properties of chemical substances.</li> </ul>	<p>The aims are achieved by applying REACH, namely:</p> <ul style="list-style-type: none"> <li>Registration,</li> <li>Evaluation,</li> <li>Authorisation; and</li> <li>Restriction of chemicals.</li> </ul> <p>REACH also aims to enhance innovation and competitiveness of the EU chemicals industry.</p>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Stockholm Convention</b>	<ul style="list-style-type: none"> <li>The objective of the Stockholm Convention is to protect human health and the environment from persistent organic pollutants.</li> </ul>	<ul style="list-style-type: none"> <li>Prohibit and/or eliminate the production and use, as well as the import and export, of the intentionally produced POPs that are listed in Annex A to the Convention</li> <li>Restrict the production and use, as well as the import and export, of the intentionally produced POPs that are listed in Annex B to the Convention</li> <li>Reduce or eliminate releases from unintentionally produced POPs that are listed in Annex C to the Convention</li> <li>Ensure that stockpiles and wastes consisting of, containing or contaminated with POPs are managed safely and in an environmentally sound manner</li> <li>To target additional POPs</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.



		<ul style="list-style-type: none"> <li>Other provisions of the Convention relate to the development of implementation plans, information exchange, public information, awareness and education, research, development and monitoring, technical assistance, financial resources and mechanisms, reporting, effectiveness evaluation and non-compliance</li> </ul>	
<b>Ramsar Convention</b>	The Convention’s mission is “the conservation and wise use of all wetlands through local and national actions and international cooperation, as a contribution towards achieving sustainable development throughout the world”.	<p>Under the “three pillars” of the Convention, the Contracting Parties commit to:</p> <ul style="list-style-type: none"> <li>Work towards the wise use of all their wetlands;</li> <li>Designate suitable wetlands for the list of Wetlands of International Importance (the “Ramsar List”) and ensure their effective management;</li> <li>Cooperate internationally on transboundary wetlands, shared wetland systems and shared species.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>OSPAR Convention</b>	The mission of OSPAR is to conserve marine ecosystems and safeguard human health in the North-East Atlantic by preventing and eliminating pollution; by protecting the marine environment from the adverse effects of human activities; and by contributing to the sustainable use of the seas.	<p>OSPAR's work is organised under six strategies:</p> <ul style="list-style-type: none"> <li>Biodiversity and Ecosystem Strategy</li> <li>Eutrophication Strategy</li> <li>Hazardous Substances Strategy</li> <li>Offshore Industry Strategy</li> <li>Radioactive Substances Strategy</li> <li>Strategy for the Joint Assessment and Monitoring Programme</li> </ul> <p>These six strategies fit together to underpin the ecosystem approach. For each strategy a programme of work is designed and implemented annually.</p>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>European 2020 Strategy for Growth</b>	Europe 2020 sets out a vision of Europe’s social market economy for the 21st century and puts forward three mutually reinforcing	In order to reach these priorities, the Commission proposes five quantitative targets to fulfil by 2020: 1.75 % of the population aged 20-64 should be	Implementation of the Plan needs to comply with all environmental legislation and



	<p>priorities:</p> <ul style="list-style-type: none"> <li>• Smart growth: developing an economy based on knowledge and innovation;</li> <li>• Sustainable growth: promoting a more resource efficient, greener and more competitive economy;</li> <li>• Inclusive growth: fostering a high-employment economy delivering social and territorial cohesion.</li> </ul>	<p>employed;</p> <p>2. 3% of the EU’s GDP should be invested in R&amp;D;</p> <p>the “20/20/20” climate/energy targets should be met (including an increase to 30% of emissions reduction if the conditions are right);</p> <p>the share of early school leavers should be under 10% and at least 40% of the younger generation should have a tertiary degree;</p> <p>5. 20 million less people should be at risk of poverty.</p>	<p>align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>The European Green Deal (EGD) 2019</b>	<p>The deal sets out how to make Europe the first climate-neutral continent by 2050, boosting the economy, improving people’s quality of life, caring for nature and leaving no one behind.</p>	<ul style="list-style-type: none"> <li>• It sets out a roadmap with actions to boost the efficient use of resources by moving to a clean, circular economy, restore biodiversity and cut pollution.</li> <li>• It outlines investments required, financing tools available and explains how to ensure a just and inclusive transition.</li> <li>• In order to meet the goal to become climate neutral by 2050 as part of the European Green Deal, the European Union (EU) Commission proposed on 4th March 2020 to bring about the first European Climate Law and legally bind the target of net zero greenhouse gas emissions by 2050</li> </ul>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>EU (2018) Clean Air Policy Package</b>	<p>Aims to substantially reduce air pollution across the EU.</p>	<p>The proposed strategy sets out objectives for reducing the health and environmental impacts of air pollution by 2030, and contains legislative proposals to implement stricter standards for emissions and air pollution.</p>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in</p>



			combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>National Level</b>			
<b>Ireland 2040 - Our Plan, the National Planning Framework, and the National Development Plan (2021 - 2030)</b>	<ul style="list-style-type: none"> <li>The National Planning Framework is the Government’s high-level strategic plan for shaping the future growth and development of to the year 2040. It is a framework to guide public and private investment, to create and promote opportunities for people, and to protect and enhance the environment - from villages to cities, and everything around and in between.</li> <li>The National Development Plan sets out the investment priorities that will underpin the successful implementation of the new National Planning Framework. This will guide national, regional and local planning and investment decisions in</li> </ul>	<p>The National Planning Framework published alongside the National Development Plan yields ten National Strategic Outcomes as follows:</p> <ol style="list-style-type: none"> <li>1. Compact Growth</li> <li>2. Enhanced Regional Accessibility</li> <li>3. Strengthened Rural Economies and Communities</li> <li>4. Sustainable Mobility</li> <li>5. A Strong Economy, supported by Enterprise, Innovation and Skills</li> <li>6. High-Quality International Connectivity</li> <li>7. Enhanced Amenity and Heritage</li> <li>8. Transition to a Low-Carbon and Climate-Resilient Society</li> <li>9. Sustainable Management of Water and other Environmental Resources</li> </ol>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.



	Ireland over the next two decades, to cater for an expected population increase of over 1 million people.	10. Access to Quality Childcare, Education and Health Services	
<b>Planning, Land Use and Transport Outlook 2040 [In Preparation]</b>	The PLUTO will take account of forecasted future economic and demographic scenarios, affordability considerations and relevant Government policies and will: Quantify in broad terms the appropriate scale of financial investment in land transport over the long term; Consider how fiscal, environmental and technological developments might impact on this investment; and, Identify strategic priorities for future investment to ensure land transport infrastructure provision facilitates the objectives of Project Ireland 2040.	In preparation.	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Planning and Development Act 2000 (as amended)</b>	<ul style="list-style-type: none"> <li>The core principal objectives of this Act are to amend the Planning Acts of 2000 – 2022 with specific regard given to supporting economic renewal and sustainable development.</li> </ul>	<ul style="list-style-type: none"> <li>Development, with certain exceptions, is subject to development control under the Planning Acts and the local authorities grant or refuse planning permission for development, including ones within protected areas.</li> <li>There are, however, a range of exemptions from the planning system. Use of land for agriculture, peat extraction and afforestation, subject to certain thresholds, is generally exempt from the requirement to obtain planning permission.</li> <li>Additionally, Environmental Impact Assessment (EIA) is required for a range of classes and large scale projects.</li> <li>Under planning legislation, Development Plans must include mandatory objectives for the conservation of the natural heritage and for the</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.



		conservation of European sites and any other sites which may be prescribed. There are also discretionary powers to set objectives for the conservation of a variety of other elements of the natural heritage.	
<b>European Communities (Environmental Assessment of Certain Plans and Programmes Regulations 2004 (S.I. 435 of 2004), as amended by S.I. 200 of 2011</b>	<ul style="list-style-type: none"> <li>The purpose of these Regulations is to transpose into Irish law Directive 2001/42/EC of 27 June 2001 (O.J. No. L 197, 21 July 2001) on the assessment of the effects of certain plans and programmes on the environment – commonly known as the Strategic Environmental Assessment (SEA) Directive.</li> </ul>	<ul style="list-style-type: none"> <li>The Regulations cover plans and programmes in all of the sectors listed in article 3(2) of the Directive except land-use planning.</li> <li>These Regulations also amend certain provisions of the Planning and Development Act 2000 to provide the statutory basis for the transposition of the Directive in respect of land-use planning.</li> <li>Transposition in respect of the land-use planning sector is contained in the Planning and Development (Strategic Environmental Assessment) Regulations 2004 (S.I. No. 436 of 2004).</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. 477 of 2011, as amended)</b>	<ul style="list-style-type: none"> <li>These Regulations provide a new for the implementation in Ireland of Council Directive 92/43/EEC on habitats and protection of wild fauna and flora (as amended) and for the implementation of Directive 2009/147/EC of the European Parliament and of the Council on the protection of wild birds.</li> </ul>	<ul style="list-style-type: none"> <li>They provide, among other things, for: the appointment and functions of authorized officers; identification, classification and other procedures relative to the designation of Community sites.</li> <li>The Regulations have been prepared to address several judgments of the CJEU against Ireland, notably cases C- 418/04 and C-183/05, in respect of failure to transpose elements of the Birds Directive and the Habitats Directive into Irish law.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Waste Management Act 1996, as amended</b>	<ul style="list-style-type: none"> <li>To make provision in relation to the prevention, management and control of waste; to give effect to provisions of certain acts adopted by institutions of the</li> </ul>	<ul style="list-style-type: none"> <li>The Waste Management Act contains a number of key legal obligations, including requirements for waste management planning, waste collection and movement, the authorisation of waste</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively





	European communities in respect of those matters; to amend the Environmental Protection Agency Act, 1992, and to repeal certain enactments and to provide for related matters.	facilities, measures to reduce the production of waste and/or promote its recovery.	contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009 (S.I. 296 of 2009)</b>	<ul style="list-style-type: none"> <li>The purpose of these Regulations is to support the achievement of favourable conservation status for freshwater pearl mussels</li> </ul>	<p>Actions:</p> <ul style="list-style-type: none"> <li>Set environmental quality objectives for the habitats of the freshwater pearl mussel populations named in the First Schedule to these Regulations that are within the boundaries of a site notified in a candidate list of European sites, or designated as a Special Area of Conservation, under the European Communities (Natural Habitats) Regulations, 1997 (S.I. No. 94/1997).</li> <li>Require the production of sub-basin management plans with programmes of measures to achieve these objectives.</li> <li>Set out the duties of public authorities in respect of the sub-basin management plans and programmes of measure</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>European Communities Environmental Objectives (Groundwater) Regulations 2016 (S.I. No. 366 of 2016)</b>	<ul style="list-style-type: none"> <li>To amend the European Communities Environmental Objectives (Groundwater) Regulations 2010 (S.I. No. 9 of 2010) to make further provision to implement Commission Directive 2014/80/EU of 20 June 2014 amending Annex II to Directive 2006/118/EC of the European Parliament and of the Council on the protection of groundwater against pollution and deterioration.</li> </ul>	<p>The substances and threshold values set out in Schedule 5 to S.I. No. 9 of 2010 have been reviewed and amended where necessary, based on existing monitoring information and international guidelines on appropriate threshold values.</p> <ul style="list-style-type: none"> <li>Part A of Schedule 6 has been amended to include changes to the rules governing the determination of background levels for the purposes of establishing threshold values for groundwater pollutants and indicators of</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.



		<p>pollution.</p> <ul style="list-style-type: none"> <li>Part B of Schedule 6 has been amended to include nitrites and phosphorus (total) / phosphates among the minimum list of pollutants and their indicators which the Environmental Protection Agency (EPA) must consider when establishing threshold values</li> <li>Part C of Schedule 6 amends the information to be provided to the Minister by the EPA with regard to the pollutants and their indicators for which threshold values have been established</li> </ul>	
<p><b>European Communities (Good Agricultural Practice for Protection of Waters) Regulations 2014 (S.I. No. 31 of 2014)</b></p>	<ul style="list-style-type: none"> <li>These Regulations, which give effect to Ireland's 3rd Nitrates Action Programme, provide statutory support for good agricultural practice to protect waters against pollution from agricultural sources</li> </ul>	<p>The Regulations include measures such as:</p> <ul style="list-style-type: none"> <li>Periods when land application of fertilisers is prohibited</li> <li>Limits on the land application of fertilisers</li> <li>Storage requirements for livestock manure; and</li> <li>Monitoring of the effectiveness of the measures in terms of agricultural practice and impact on water quality.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Bathing Water 2008)</b></p>	<ul style="list-style-type: none"> <li>These Regulations provide for transposition of the EU Bathing Water Directive 2006 (Directive 2006/7/EC of 15 February 2006) which aims:           <ul style="list-style-type: none"> <li>To improve health protection for bathers</li> <li>To establish a more pro-active approach to management of bathing waters, and</li> <li>To promote increased public</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>The Regulations establish a new classification system for bathing water quality based on four classifications “poor”, “sufficient”, “good” and “excellent” and generally require that a classification of at least “sufficient” be achieved by 2015 for all bathing waters.</li> <li>Local authorities must take appropriate measures with a view to improving waters which are classified as “poor” and increasing the number of bathing waters classified as “good” or</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental</p>



	<p>involvement and dissemination of information to the public.</p>	<p>“excellent”.</p> <ul style="list-style-type: none"> <li>• A permanent advice against bathing must be issued in a case where a bathing water is classified as “poor” for five consecutive years.</li> <li>• Local authorities are required annually to identify bathing waters, establish a monitoring calendar, carry out the specified monitoring, report the results to the EPA, carry out appropriate management measures where necessary and provide information to the public.</li> <li>• There must be public participation in the identification of waters and the general implementation of the Regulations.</li> <li>• The EPA is required by the Regulations to classify bathing waters, generally on the basis of the monitoring results for the four preceding bathing seasons, and to publish an annual report in relation to bathing water quality.</li> <li>• Monitoring by local authorities is to commence not later than 2011 with a view to ensuring that a classification is assigned to bathing waters not later than 2015.</li> <li>• Private controllers of access lands may be required to contribute towards the costs incurred by a local authority or the EPA.</li> </ul>	<p>protection and management.</p>
<p><b>Bathing Water (S.I 351 of 2011)</b></p>	<ul style="list-style-type: none"> <li>• This Regulation defines further the minimum number of bathing water samples required to carry out a bathing water quality assessment.</li> </ul>	<ul style="list-style-type: none"> <li>• Further defines the minimum number of bathing water samples required to carry out a bathing water quality assessment.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the</p>



			objectives of the regulatory framework for environmental protection and management.
<b>Climate Action and Low Carbon Development (Amendment) Act 2021</b>	An Act to provide for the approval of plans by the Government in relation to climate change for the purpose of pursuing the transition to a low carbon, climate resilient and environmentally sustainable economy.	When considering a plan or framework, for approval, the Government shall endeavour to achieve the national transition objective within the period to which the objective relates and shall, in endeavouring to achieve that objective, ensure that such objective is achieved by the implementation of measures that are cost effective and shall, for that purpose, have regard to: <ul style="list-style-type: none"> <li>• The ultimate objective specified in Article 2 of the United Nations Framework Convention on Climate Change done at New York on 9 May 1992 and any mitigation commitment entered into by the European Union in response or otherwise in relation to that objective,</li> <li>• The policy of the Government on climate change,</li> <li>• Climate justice,</li> <li>• Any existing obligation of the State under the law of the European Union or any international agreement referred to in section 2; and</li> <li>• The most recent national greenhouse gas emissions inventory and projection of future greenhouse gas emissions, prepared by the Agency.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.



<p><b>Climate Action Plan 2023</b></p>	<p>The Climate Action Plan 2023 provides a detailed plan for taking decisive action to achieve a 51% reduction in overall greenhouse gas emissions by 2030 and setting Ireland on a path to reach net-zero emissions by no later than 2050, as committed to in the Programme for Government and set out in the Climate Act 2021.</p>	<p>The Plan lists the actions needed to deliver on our climate targets and sets indicative ranges of emissions reductions for each sector of the economy. It will be updated annually, to ensure alignment with Ireland’s legally binding economy-wide carbon budgets and sectoral ceilings</p>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Ireland’s Second National Implementation Plan for the Sustainable Development Goals (2022 - 2024)</b></p>	<ul style="list-style-type: none"> <li>• National Implementation Plan 2022 - 2024 is in direct response to the 2030 Agenda for Sustainable Development and provides a whole-of-government approach to implement the 17 Sustainable Development Goals (SDGs).</li> <li>• The first version of the Plan (2018 – 2020) provided a 'SDG Matrix' which identifies</li> </ul>	<p>The Plan identifies five strategic objectives to guide implementation:</p> <ul style="list-style-type: none"> <li>• To embed the SDG framework into the work of Government Departments to achieve greater Policy Coherence for Sustainable Development;</li> <li>• To integrate the SDGs into Local Authority work to better support the localisation of the SDGs;</li> <li>• Greater partnerships for the Goals;</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the</p>



	<p>the responsible Government Departments for each of the 169 targets. It also included a 'SDG Policy Map' indicating the relevant national policies for each of the targets.</p>	<ul style="list-style-type: none"> <li>To further incorporate the principle of Leave No One Behind into Ireland's Agenda 2030 implementation and reporting mechanisms; and</li> <li>Strong reporting mechanisms</li> </ul>	<p>objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Infrastructure and Capital Investment Plan (2016-2021)</b></p>	<ul style="list-style-type: none"> <li>€27 billion multi-annual Exchequer Capital Investment Plan, which is supported by a programme of capital investment in the wider State sector, and which over the period 2016 to 2021 will help to lay the foundations for continued growth in Ireland.</li> </ul>	<ul style="list-style-type: none"> <li>This Capital Plan reflects the Government's commitment to supporting strong and sustainable economic growth and raising welfare and living standards for all.</li> <li>It includes allocations for new projects across a number of key areas and funding to ensure that the present stock of national infrastructure is refreshed and maintained.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Ireland's National Renewable Energy Action Plan 2010 (Irish Government submission to the European Commission)</b></p>	<ul style="list-style-type: none"> <li>The National Renewable Energy Action Plan (NREAP) sets out the Government's strategic approach and concrete measures to deliver on Ireland's 16% target under Directive 2009/28/EC.</li> </ul>	<ul style="list-style-type: none"> <li>The NREAP sets out the Member State's national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020, and demonstrates how the Member State will meet its overall national target established under the Directive.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Strategy for Renewable Energy (2012-2020)</b></p>	<ul style="list-style-type: none"> <li>The Government's overarching strategic objective is to make renewable energy an increasingly significant component of Ireland's energy supply by 2020, so that</li> </ul>	<p>This document sets out five strategic goals, reflecting the key dimensions of the renewable energy challenge to 2020:</p> <ul style="list-style-type: none"> <li>Increasing on and offshore wind,</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively</p>



	<p>at a minimum it will achieve its legally binding 2020 target in the most cost efficient manner for consumers. Of critical importance is the role which the renewable energy s activity as part of the Government’s action plan for jobs sector plays in job creation and economic</p>	<ul style="list-style-type: none"> <li>• Building a sustainable bioenergy sector,</li> <li>• Fostering R&amp;D in renewables such as wave &amp; tidal,</li> <li>• Growing sustainable transport; and</li> <li>• Building out robust and efficient networks.</li> </ul>	<p>contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Climate Mitigation Plan 2017</b></p>	<ul style="list-style-type: none"> <li>• The Plan represents an initial step to set Ireland on a pathway to achieve the deep decarbonisation required in Ireland by mid-century in line with the Government's policy objectives.</li> </ul>	<p>The National Mitigation Plan focuses on the following issues:</p> <ul style="list-style-type: none"> <li>• Climate Action Policy Framework</li> <li>• Decarbonising Electricity Generation</li> <li>• Decarbonising the Built Environment</li> <li>• Decarbonising Transport</li> <li>• An Approach to Carbon Neutrality for Agriculture, Forest and Land Use Sectors</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Policy Position on Climate Action and Low Carbon Development (2014)</b></p>	<ul style="list-style-type: none"> <li>• The National Policy Position provides a high-level policy direction for the adoption and implementation by Government of plans to enable the State to move to a low carbon economy by 2050.</li> <li>• Statutory authority for the plans is set out in the Climate Action and Low Carbon Development Act 2015.</li> </ul>	<p>National climate policy in Ireland:</p> <ul style="list-style-type: none"> <li>• Recognises the threat of climate change for humanity;</li> <li>• Anticipates and supports mobilisation of a comprehensive international response to climate change, and global transition to a low-carbon future;</li> <li>• Recognises the challenges and opportunities of the broad transition agenda for society; and</li> <li>• Aims, as a fundamental national objective, to achieve transition to a competitive, low carbon, climate-resilient and environmentally sustainable economy by 2050.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



<p><b>Clean Air Strategy for Ireland (2023)</b></p>	<ul style="list-style-type: none"> <li>The Clean Air Strategy provides the strategic policy framework necessary to identify and promote integrated measures across government policy that are required to reduce air pollution and promote cleaner air while delivering on wider national objectives.</li> </ul>	<ul style="list-style-type: none"> <li>Through this document Ireland can develop the necessary policies and measures to comply with new and emerging EU legislation.</li> <li>The Strategy should also help tackle climate change.</li> <li>The Strategy considers a wider range of national policies that are relevant to clean air policy such as transport, energy, home heating and agriculture.</li> <li>In any discussion relating to clean air policy, the issue of people’s health is paramount, this is a strong theme of the Strategy.</li> </ul>	<p>Implementation of the Guidelines need to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>EirGrid’s Grid25 Strategy and associated</b></p>	<ul style="list-style-type: none"> <li>EirGrid’s mission is to develop, maintain and operate a safe, secure, reliable, economical and efficient transmission system for Ireland.</li> <li><i>“Our vision is of a grid developed to match future needs, so it can safely and reliably carry power all over the country to the major towns and cities and onwards to every home, farm and business where the electricity is consumed and so it can meet the needs of consumers and generators in a sustainable way.”</i></li> </ul>	<ul style="list-style-type: none"> <li>Grid25, EirGrid’s roadmap to uprate the electricity transmission grid by 2025, continues to be implemented so as to increase the capacity of the grid, to satisfy future demand, and to help Ireland meet its target of 40 per cent of electricity from renewable energy by 2020.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>All Island Grid Study 2008</b></p>	<ul style="list-style-type: none"> <li>The All Island Grid Study is the first comprehensive assessment of the ability of the electrical power system and, as part of that, the transmission network (“the grid”) on the island of Ireland to absorb large amounts of electricity produced from renewable energy sources.</li> </ul>	<p>Key conclusions of the study:</p> <ul style="list-style-type: none"> <li>The presented results indicate that the differences in cost between the highest cost and the lowest cost portfolios are low (7%), given the assumptions made and costs included in the Study.</li> <li>All but the high coal-based portfolio lead to significant reductions of CO2 emissions compared</li> </ul>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan</p>





	<ul style="list-style-type: none"> <li>The objective of this five-part study is to assess the technical feasibility and the relative costs and benefits associated with various scenarios for increased shares of electricity sourced from renewable energy in the all island power system.</li> </ul>	<p>to portfolio 1</p> <ul style="list-style-type: none"> <li>All but the high coal-based portfolio lead to reductions on the dependency of the all island system on fuel and electricity imports.</li> <li>The limitations of the study may overstate the technical feasibility of the portfolios analysed and could impact the costs and benefits resulting. Further work is required to understand the extent of such impact.</li> <li>Timely development of the transmission networks, requiring means to address the planning challenge, is a precondition for implementation of the portfolios considered.</li> <li>Market mechanisms must facilitate the installation of complementary, i.e. flexible, dispatchable plant, so as to maintain adequate levels of system security.</li> </ul>	<p>needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management</p>
--	--	---	--



<p><b>Strategy for the Future Development of National and Regional Greenways (2018)</b></p>	<ul style="list-style-type: none"> <li>The objective of this Strategy is to assist in the strategic development of nationally and regionally significant Greenways in appropriate locations constructed to an appropriate standard in order to deliver a quality experience for all Greenways users.</li> <li>It also aims to increase the number and geographical spread of Greenways of scale and quality around the country over the next 10 years with a consequent significant increase in the number of people using Greenways as a visitor experience and as a recreational amenity.</li> </ul>	<ul style="list-style-type: none"> <li>A Strategic Greenway network of national and regional routes, with a number of high capacity flagship routes that can be extended and/or link with local Greenways and other cycling and walking infrastructure;</li> <li>Greenways of scale and appropriate standard that have significant potential to deliver an increase in activity tourism to Ireland and are regularly used by overseas visitors, domestic visitors and locals thereby contributing to a healthier society through increased physical activity;</li> <li>Greenways that provide a substantially segregated offroad experience linking places of interest, recreation and leisure in areas with beautiful scenery of different types with plenty to see and do; and</li> <li>Greenways that provide opportunities for the development of local businesses and economies, and</li> <li>Greenways that are developed with all relevant stakeholders in line with an agreed code of practice.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Water Resources Plan (2021)</b></p>	<ul style="list-style-type: none"> <li>The NWRP is a plan on how to provide a safe, secure and reliable water supply to customers for the next 25 years, without causing adverse impact on the environment.</li> <li>The objective of the NWRP is to set out how we intend to maintain the supply and demand for drinking water over the short, medium and long term whilst</li> </ul>	<p>The key objectives of the plan are to:</p> <ul style="list-style-type: none"> <li>Identify areas where there are current and future potential water supply shortfalls, taking into account normal and extreme weather conditions</li> <li>Assess the current and future water demand from homes, businesses, farms, and industry</li> <li>Consider the impacts of climate change on Ireland’s water resources</li> <li>Develop a drought plan advising measures to</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory</p>



	minimising the impact on the environment.	<ul style="list-style-type: none"> <li>be taken before and during drought events</li> <li>Develop a plan detailing how we deal with the material that is produced as a result of treating drinking water</li> <li>Identify, develop and assess options to help meet potential shortfalls in water supplies</li> <li>Assess the water resources available at a national level including lakes, rivers and groundwater</li> </ul>	framework for environmental protection and management.
<b>Draft National Strategic Plan for Aquaculture Development 2030 [Awaiting publication]</b>	<i>“This multi-annual National Strategic Plan Sustainable Aquaculture Development (2022 – 2030) (NSPSA) overlaps with the EU’s new ‘Strategic guidelines for a more sustainable and competitive EU aquaculture for the period 2021 to 2030’, as well as the programming period (2021 to 2027) of the European Maritime Fisheries and Aquaculture Fund (EMFAF). As such, this plan provides the strategic vision and framework for funding under EMFAF, as well as other EU and national initiatives.”</i>	<ul style="list-style-type: none"> <li>Develop ‘Designated Marine Area Plans’ (DMAPs) for aquaculture to ensure that the sector is championed in Ireland’s Marine Spatial Plan to facilitate investment in different forms of sustainable aquaculture.</li> <li>More vigilant and responsive monitoring if aquatic diseases and food safety risks.</li> <li>Develop a comprehensive human capacity plan for Irish aquaculture to promote the sector as an attractive career option, develop leadership, management and business capacity in the sector and provide the necessary skills required over the strategy time period.</li> <li>Provide coordinated messaging on the sustainable, low carbon nature of Irish aquaculture production, supported by independent certification and open dialogue.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Construction 2020, A Strategy for a Renewed Construction Sector</b>	<ul style="list-style-type: none"> <li>Construction 2020 sets out a package of measures agreed by the Government and is aimed at stimulating activity in the building industry.</li> <li>The Strategy aims both to increase the capacity of the sector to create and maintain jobs, and to deliver a</li> </ul>	<p>This Strategy therefore addresses issues including:</p> <ul style="list-style-type: none"> <li>A strategic approach to the provision of housing, based on real and measured needs, with mechanisms in place to detect and act when things are going wrong;</li> <li>Continuing improvement of the planning process, striking the right balance between current and</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. –



	<p>sustainable sector, operating at an appropriate level. It seeks to learn the lessons of the past and to ensure that the right structures and mechanisms are in place so that they are not repeated.</p>	<p>future requirements;</p> <ul style="list-style-type: none"> <li>• The availability of financing for viable and worthwhile projects;</li> <li>• Access to mortgage finance on reasonable and sustainable terms;</li> <li>• Ensuring we have the tools we need to monitor and regulate the sector in a way that underpins public confidence and worker safety;</li> <li>• Ensuring a fit for purpose sector supported by a highly skilled workforce achieving high quality and standards; and</li> <li>• Ensuring opportunities are provided to unemployed former construction workers to contribute to the recovery of the sector.</li> </ul>	<p>the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Sustainable Development: A Strategy for Ireland (1997)</b></p>	<ul style="list-style-type: none"> <li>• The overall aim of this Strategy is to ensure that economy and society in Ireland can develop to their full potential within a well-protected environment, without compromising the quality of that environment, and with responsibility towards present and future generations and the wider international community.</li> </ul>	<ul style="list-style-type: none"> <li>• The Strategy addresses all areas of Government policy, and of economic and societal activity, which impact on the environment. It seeks to re-orientate policies as necessary to ensure that the strong growth Ireland enjoys and seeks to maintain will be environmentally sustainable.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Landscape Strategy for Ireland 2015-2025 and National Landscape</b></p>	<ul style="list-style-type: none"> <li>• The National Landscape Strategy will be used to ensure compliance with the European Landscape Convention and to establish principles for protecting and enhancing the landscape while positively managing its change. It will provide a high level policy framework to achieve</li> </ul>	<p>The objectives of the National Landscape Strategy are to:</p> <ul style="list-style-type: none"> <li>• Implement the European Landscape Convention by integrating landscape into the approach to sustainable development;</li> <li>• Establish and embed a public process of gathering, sharing and interpreting scientific,</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. –</p>



	<p>balance between the protection, management and planning of the landscape by way of supporting actions.</p> <ul style="list-style-type: none"> <li>• Landscape Strategy Vision: <i>“Our landscape reflects and embodies our cultural values and our shared natural heritage and contributes to the well-being of our society, environment and economy. We have an obligation to ourselves and to future generations to promote its sustainable protection, management and planning.”</i></li> </ul>	<p>technical and cultural information in order to carry out evidence-based identification and description of the character, resources and processes of the landscape;</p> <ul style="list-style-type: none"> <li>• Provide a policy framework, which will put in place measures at national, sectoral - including agriculture, tourism, energy, transport and marine - and local level, together with civil society, to protect, manage and properly plan through high quality design for the sustainable stewardship of the landscape;</li> <li>• Ensure that we take advantage of opportunities to implement policies relating to landscape use that are complementary and mutually reinforcing and that conflicting policy objectives are avoided in as far as possible.</li> </ul>	<p>the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
--	---	--	---



<p><b>National Hazardous Waste Management Plan (EPA) 2021 - 2027</b></p>	<ul style="list-style-type: none"> <li>This Plan sets out the priorities to be pursued over the next six years and beyond to improve the management of hazardous waste, taking into account the progress made since the previous plan and the waste policy and legislative changes that have occurred since the previous plan was published.</li> </ul> <p>Section 26 of the Waste Management Act 1996 as amended, sets out the overarching objectives for the National Hazardous Waste Management Plan. In this context, the following objectives are included as priorities for the revised Plan period:</p> <ul style="list-style-type: none"> <li>To prevent and reduce the generation of hazardous waste by industry and society generally;</li> <li>To maximise the collection of hazardous waste with a view to reducing the environmental and health impacts of any unregulated waste;</li> <li>To strive for increased self-sufficiency in the management of hazardous waste and to minimise hazardous waste export;</li> <li>To minimise the environmental, health, social and economic impacts of hazardous waste generation and management.</li> </ul>	<p>The revised Plan makes 20 recommendations under the following topics:</p> <ul style="list-style-type: none"> <li>Policy and Regulation</li> <li>Prevention</li> <li>Collection and Treatment</li> <li>Implementation</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Ports Policy 2013</b></p>	<ul style="list-style-type: none"> <li>The core objective of National Ports Policy is to facilitate a competitive and effective market for maritime transport services.</li> </ul>	<p>National Ports Policy introduces clear categorisation of the ports sector into Ports of National Significance (Tier 1), Ports of National Significance (Tier 2) and Ports of Regional Significance.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users</p>



			and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>National Aviation Policy 2015</b>	<p>Specifically, the principal goals of this National Aviation Policy are:</p> <ul style="list-style-type: none"> <li>To enhance Ireland’s connectivity by ensuring safe, secure and competitive access responsive to the needs of business, tourism and consumers;</li> <li>To foster the growth of aviation enterprise in Ireland to support job creation and position Ireland as a recognised global leader in aviation; and</li> <li>To maximise the contribution of the aviation sector to Ireland’s economic growth and development.</li> </ul>	<p>The National Aviation Policy commits to:</p> <ul style="list-style-type: none"> <li>Maintaining safety as the number one priority in Irish aviation and ensuring that safety regulation is robust, effective and efficient;</li> <li>Creating conditions to encourage the development of new routes and services, particularly to new and emerging markets;</li> <li>Ensuring a high level of competition among airlines operating in the Irish market;</li> <li>Optimising the operation of the Irish airport network to ensure maximum connectivity to the rest of the world;</li> <li>Ensuring that the regulatory framework for aviation reflects best international practice and that economic regulation facilitates continued investment in aviation infrastructure at Irish airports to support traffic growth;</li> <li>Supporting the aircraft leasing and aviation finance sectors to maintain Ireland’s leading global position in these spheres; and</li> <li>Maintaining a safe and innovative general aviation sector to support Ireland’s broader aviation industry</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>Ministerial Guidelines such as Sustainable Rural Housing Guidelines</b>	<ul style="list-style-type: none"> <li>The Department produces a range of guidelines designed to help planning authorities, An Bord Pleanála, developers and the general public and cover a wide</li> </ul>	<ul style="list-style-type: none"> <li>The Minister issues statutory guidelines under Section 28 of the Act which planning authorities and An Bord Pleanála are obliged to have regard to in the performance of their planning functions.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively</p>



<p><b>and Flood Risk Management Guidelines</b></p>	<p>range of issues amongst others, architectural heritage, child care facilities, landscape, quarries and residential density.</p>		<p>contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>HSE Healthy Ireland Framework for Improved Health and Wellbeing 2013-2025</b></p>	<ul style="list-style-type: none"> <li>The vision is: <i>“A Healthy Ireland, where everyone can enjoy physical and mental health and wellbeing to their full potential, where wellbeing is valued and supported at every level of society and is everyone’s responsibility.”</i></li> </ul>	<p>These four goals are interlinked, interdependent and mutually supportive:</p> <ul style="list-style-type: none"> <li>Goal 1: Increase the proportion of people who are healthy at all stages of life</li> <li>Goal 2: Reduce health inequalities</li> <li>Goal 3: Protect the public from threats to health and wellbeing</li> <li>Goal 4: Create an environment where every individual and sector of society can play their part in achieving a healthy Ireland</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Marine Planning Framework 2021</b></p>	<p>The NMPF is a key consideration for decision makers on all marine authorisations. The NMPF creates the overarching framework for decision making that is consistent, evidence based, and secures a sustainable future for the maritime area.</p>	<p>The National Marine Planning Framework is a succinct strategic document that will deal with, inter alia, the following environmental, social and economic issues:</p> <ul style="list-style-type: none"> <li>Key marine activities such as fisheries, tourism, transport, offshore renewable energy generation, oil and gas exploration and production, aquaculture, and how they interact;</li> <li>Climate change and related impacts;</li> <li>Communities and health;</li> <li>Cultural heritage;</li> <li>Marine environment and biodiversity;</li> <li>Transboundary interactions with other jurisdictions.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>





<p><b>Tourism Action Plan 2019 - 2021</b></p>	<p>Includes a total of 27 actions to be addressed in the period between now and 2018 aimed at securing continued growth in overseas tourism revenue and employment.</p>	<p>23 actions address a range of key issues, including the marketing of Ireland as a visitor destination overseas, visitor access to and within Ireland, the effective presentation of Irish culture, sport, and events to visitors, the role of Local Authorities in supporting tourism, visitor accommodation capacity, and skills development in the tourism sector. The actions are directed at specific tourism stakeholders in the public and private sectors, all of whom are expected to proactively work towards completion of each action within the specified timeframe.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Tourism Policy Statement: People, Place and Policy – Growing Tourism to 2025</b></p>	<p>The main goal of this policy statement is to have a vibrant, attractive tourism sector that makes a significant contribution to employment across the country; is economically, socially and environmentally sustainable; helps promote a positive image of Ireland overseas, and is a sector in which people want to work.</p>	<p>The Tourism Policy Statement sets three headline targets to be achieved by 2025:</p> <ul style="list-style-type: none"> <li>• Overseas tourism revenue of €5 billion per year</li> <li>• net of inflation excluding carrier receipts;</li> <li>• 250,000 people employed in tourism; and</li> <li>• 10 million overseas visitors to Ireland per year.</li> </ul>	<p>Where new land use developments or activities occur as a result of this legislation, plan, programme, etc., individually or in combination with others, potential in combination effects may arise. Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Tourism 2020: Tourism Strategy for Northern Ireland to</b></p>	<ul style="list-style-type: none"> <li>• Northern Ireland's Tourism Strategy until 2020</li> <li>• Vision is to “Create the new Northern</li> </ul>	<ul style="list-style-type: none"> <li>• Sets targets for:             <ul style="list-style-type: none"> <li>○ Increasing visitor numbers</li> <li>○ Increasing tourism earnings</li> </ul> </li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and</p>



<p><b>2020</b></p>	<p>Ireland experience and get it on everyone’s destination wish list”</p> <ul style="list-style-type: none"> <li>• Details an Action Plan to achieving targets for People, Products and Places, Promotion and Partnership</li> </ul>	<ul style="list-style-type: none"> <li>◦ Accelerating visitor spend</li> <li>◦ Targeting specific markets and segments</li> <li>◦ Supporting indigenous high quality businesses</li> <li>◦ Being visitor inspired</li> </ul> <ul style="list-style-type: none"> <li>• Plan provides for development of at least 22 key sites on Causeway Coastal Route</li> </ul>	<p>align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Our Sustainable Future: A framework for Sustainable Development for Ireland 2012</b></p>	<p>A medium to long term framework for advancing sustainable development and the green economy in Ireland. It identifies spatial planning as a key challenge for sustainable development and sets a series of measures to address these challenges.</p>	<ul style="list-style-type: none"> <li>• Sets out the challenges facing us and how we might address them in making sure that quality of life and general wellbeing can be improved and sustained in the decades to come.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Smarter Travel – A Sustainable Transport Future – A New Transport Policy for Ireland 2009 – 2020 (2009)</b></p>	<ul style="list-style-type: none"> <li>• Outlines a policy for how a sustainable travel and transport system can be achieved.</li> <li>• Sets out five key goals:           <ul style="list-style-type: none"> <li>◦ To reduce overall travel demand.</li> <li>◦ To maximise the efficiency of the transport network.</li> <li>◦ To reduce reliance on fossil fuels.</li> <li>◦ To reduce transport emissions.</li> <li>◦ To improve accessibility to transport.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Others lower level aims include:           <ul style="list-style-type: none"> <li>◦ reduce distance travelled by private car and encourage smarter travel, including focusing population growth in areas of employment and to encourage people to live in close proximity to places of employment</li> <li>◦ ensuring that alternatives to the car are more widely available, mainly through a radically improved public transport service and through investment in cycling</li> </ul> </li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



		<ul style="list-style-type: none"> <li>and walking           <ul style="list-style-type: none"> <li>o improving the fuel efficiency of motorised transport through improved fleet structure, energy efficient driving and alternative technologies</li> <li>o strengthening institutional arrangements to deliver the targets</li> </ul> </li> </ul>	
<b>National Investment Framework for Transport in Ireland (NIFTI) 2021</b>	<ul style="list-style-type: none"> <li>• NIFTI is the Department of Transport’s framework for prioritising future investment in the land transport network to support the delivery of the National Strategic Outcomes.</li> <li>• The NIFTI will guide transport investment in the years ahead to enable the National Planning Framework, support the Climate Action Plan, and promote social, environmental and economic outcomes throughout Ireland.</li> </ul>	<p>The four investment priorities stated in NIFTI are:</p> <ul style="list-style-type: none"> <li>• Mobility of people and goods in urban areas.</li> <li>• Protection and renewal.</li> <li>• Enhanced regional and rural connectivity.</li> <li>• Decarbonisation.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Delivering a Sustainable Energy Future for Ireland – The Energy Policy Framework 2007 – 2020 (2007)</b>	<ul style="list-style-type: none"> <li>• White paper setting out a framework for delivering a sustainable energy future in Ireland.           <ul style="list-style-type: none"> <li>• Outlines strategic Goals for:               <ul style="list-style-type: none"> <li>o Security of Supply</li> <li>o Sustainability of Energy</li> <li>o Competitiveness of Energy Supply</li> </ul> </li> </ul> </li> </ul>	<p>The underpinning Strategic Goals are:</p> <ul style="list-style-type: none"> <li>• Ensuring that electricity supply consistently meets demand</li> <li>• Ensuring the physical security and reliability of gas supplies to Ireland</li> <li>• Enhancing the diversity of fuels used for power generation</li> <li>• Delivering electricity and gas to homes and businesses over efficient, reliable and secure networks</li> <li>• Creating a stable attractive environment for hydrocarbon exploration and production</li> <li>• Being prepared for energy supply disruptions</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.



<p><b>National Adaptation Framework (NAF) 2018 and associated regional, local and sectoral adaptation plans (including transport)</b></p>	<ul style="list-style-type: none"> <li>• NAF specifies the national strategy for the application of adaptation measures in different sectors and by local authorities in their administrative areas in order to reduce the vulnerability of the State to the negative effects of climate change and to avail of any positive effects that may occur</li> </ul>	<ul style="list-style-type: none"> <li>• Adaptation under this Framework should seek to minimise costs and maximise the opportunities arising from climate change.</li> <li>• Adaptation actions range from building adaptive capacity (e.g. increasing awareness, sharing information and targeted training) through to policy and finance based actions.</li> <li>• Adaptation actions must be risk based, informed by existing vulnerabilities of our society and systems and an understanding of projected climate change.</li> <li>• Adaptation actions taken to increase climate resilience must also consider impacts on other sectors and levels of governance</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Governments White Paper ‘Ireland’s Transition to a Low Carbon Energy Future’ (2015 – 2030)</b></p>	<p>The White Paper sets out a vision and a framework to guide Irish energy policy between now and 2030. A complete energy policy update informed by the vision to transform Ireland into a low carbon society and economy by 2050.</p>	<p>2030 will represent a significant milestone, meaning:</p> <ul style="list-style-type: none"> <li>• Reduced GHG emissions from the energy sector by between 80% and 95%</li> <li>• Ensuring that secure supplies of competitive and affordable energy remain available to citizens and businesses.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Renewable Energy Action Plan (2010)</b></p>	<ul style="list-style-type: none"> <li>• Sets out the Member State’s national targets for the share of energy from renewable sources to be consumed in transport, electricity and heating and cooling in 2020, and demonstrates how the Member State will meet its overall</li> </ul>	<p>Including Ireland’s 16% target of gross final consumption to come from renewables by 2020.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users</p>



	national target established under the Directive.		and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>National Energy Efficiency Action Plan for Ireland (2009 – 2020)</b>	<ul style="list-style-type: none"> <li>This is the second National Energy Efficiency Action Plan for Ireland.</li> </ul>	<ul style="list-style-type: none"> <li>The Plan reviews the original 90 actions outlined in the first Plan and updates/renews/removes them as appropriate.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Wildlife Act of 1976 Wildlife (Amendment) Act, 2000</b>	<ul style="list-style-type: none"> <li>The act provides protection and conservation of wild flora and fauna.</li> </ul>	<ul style="list-style-type: none"> <li>Provides protection for certain species, their habitats and important ecosystems</li> <li>Give statutory protection to NHAs</li> <li>Enhances wildlife species and their habitats</li> <li>Includes more species for protection</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Actions for Biodiversity (2017-2021) Ireland’s</b>	<ul style="list-style-type: none"> <li>Sets out strategic objectives, targets and actions to conserve and restore Ireland’s biodiversity and to prevent and reduce</li> </ul>	<ul style="list-style-type: none"> <li>To mainstream biodiversity in the decision-making process across all sectors.</li> <li>To substantially strengthen the knowledge base</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and



<b>National Biodiversity Plan</b>	<p>the loss of biodiversity in Ireland and globally.</p>	<p>for conservation, management and sustainable use of biodiversity.</p> <ul style="list-style-type: none"> <li>To increase awareness and appreciation of biodiversity and ecosystem services.</li> <li>To conserve and restore biodiversity and ecosystem services in the wider countryside.</li> <li>To conserve and restore biodiversity and ecosystem services in the marine environment.</li> <li>To expand and improve on the management of protected areas and legally protected species.</li> <li>To substantially strengthen the effectiveness of international governance for biodiversity and ecosystem services.</li> </ul>	<p>align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>National Broadband Plan (2012)</b>	<ul style="list-style-type: none"> <li>Sets out the strategy to deliver high speed broadband throughout Ireland.</li> </ul>	<p>The Plan sets out:</p> <ul style="list-style-type: none"> <li>A clear statement of Government policy on the delivery of High Speed Broadband.</li> <li>Specific targets for the delivery and rollout of high speed broadband and the speeds to be delivered.</li> <li>The strategy and interventions that will underpin the successful implementation of these targets.</li> <li>A series of specific complementary measures to promote implementation of Government policy in this area.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<b>The Planning System and Flood Risk Management – Guidelines for Planning Authorities (2009)</b>	<ul style="list-style-type: none"> <li>Sets out comprehensive mechanisms for the incorporation of flood risk identification, assessment and management into the planning process.</li> <li>Ensures flood risk is a key consideration in preparing land use plans and in the assessment of planning applications.</li> <li>Implementation of the Guidelines is</li> </ul>	<ul style="list-style-type: none"> <li>Avoid inappropriate development in areas at risk of flooding.</li> <li>Avoid new developments increasing flood risk elsewhere, including that which may arise from surface water run-off.</li> <li>Ensure effective management of residual risks for development permitted in floodplains.</li> <li>Avoid unnecessary restriction of national,</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the</p>



	<p>through actions at national, regional, local authority and site-specific levels.</p> <ul style="list-style-type: none"> <li>• Planning authorities and An Bord Pleanála are required to have regard to the Guidelines in carrying out their functions under the Planning Acts.</li> </ul>	<p>regional or local economic and social growth.</p> <ul style="list-style-type: none"> <li>• Improve the understanding of flood risk among relevant stakeholders.</li> <li>• Ensure that the requirements of EU and national law in relation to the natural environment and nature conservation are complied with at all stages of flood risk management.</li> </ul> <p>The 2009 Flood Risk Management Guidelines were amended by Circular PL 2/2014 (Department of the Environment, Community and Local Government) that provides advice on the use of OPW flood mapping in assessing planning applications and clarifies some advice from the 2009 Guidelines.</p>	<p>objectives of the regulatory framework for environmental protection and management.</p>
<p><b>European Communities (Water Policy) Regulations of 2003 (SI 722 of 2003)</b></p> <p><b>European Communities (Water Policy) Regulations of 2003 (SI 350 of 2014)</b></p> <p><b>European Communities Environmental Objectives (Surface waters) Regulations of 2009 (SI 272 of</b></p>	<ul style="list-style-type: none"> <li>• Transpose the Water Framework Directive into legislation.</li> <li>• Outlines the general duty of public authorities in relation to water.</li> <li>• Identifies the competent authorities in charge of water policy (amended to Irish Water in 2013) and gives EPA and the CER the authority to regulate and supervise their actions.</li> </ul>	<ul style="list-style-type: none"> <li>• Implements River basin districts and characterisation of RBDs and River Basin Management Plans.</li> <li>• Requires the public to be informed and consulted on the Plan and for progress reports to be published on RBDs.</li> <li>• Implements a Register of protected areas, Classification systems and Monitoring programmes for water bodies.</li> <li>• Allows the competent authority to recover the cost of damage/destruction of status of water body.</li> <li>• Outlines environmental objectives and programme of measures and environmental quality standards for priority substances.</li> <li>• Outlines criteria for assessment of groundwater.</li> <li>• Outlines environmental objectives to be achieved for surface water bodies.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



2009)		<ul style="list-style-type: none"> <li>• Outlines surface water quality standards.</li> <li>• Establishes threshold values for the classification and protection of surface waters against pollution and deterioration in quality.</li> </ul>	
<b>European Communities Environmental Objectives (Groundwater) Regulations of 2010 (SI 9 of 2010)</b>	<ul style="list-style-type: none"> <li>• Transpose the requirements of the Groundwater Directive 2006/118/EC into Irish Legislation.</li> </ul>	<ul style="list-style-type: none"> <li>• Outlines environmental objectives to be achieved for groundwater bodies of groundwater against pollution and deterioration in quality.</li> <li>• Sets groundwater quality standards.</li> <li>• Outlines threshold values for the classification and protection of groundwater.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Local Government (Water Pollution) Acts 1977 to 1990</b>	<ul style="list-style-type: none"> <li>• The Water Pollution Acts allow Local Authorities the authority regulate and supervise actions relating to water in their division.</li> </ul>	<p>The Water Pollution Acts enable local authorities to:</p> <ul style="list-style-type: none"> <li>• Prosecute for water pollution offences.</li> <li>• Attach appropriate pollution control conditions in the licensing of effluent discharges from industry, etc., made to waters.</li> <li>• Issue notices ("section 12 notices") to farmers, etc., specifying measures to be taken within a prescribed period to prevent water pollution.</li> <li>• issue notices requiring a person to cease the pollution of waters and requiring the mitigation or remedying of any effects of the pollution in the manner and within the period specified in such notices;</li> <li>• Seek court orders, including High Court injunctions, to prevent, terminate, mitigate or remedy pollution/its effects.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.





		<ul style="list-style-type: none"> <li>• Prepare water quality management plans for any waters in or adjoining their functional areas.</li> </ul>	
<p><b>Water Services Act 2007</b></p> <p><b>Water Services (Amendment) Act 2012</b></p> <p><b>Water Services Act (No. 2) 2013</b></p>	<ul style="list-style-type: none"> <li>• Provides the water services infrastructure.</li> <li>• Outlines the responsibilities involved in delivering and managing water services.</li> <li>• Identifies the authority in charge of provision of water and waste water supply.</li> <li>• Irish Water was given the responsibility of the provision of water and wastewater services in the amendment act during 2013, therefore these services are no longer the responsibility of the 34 Local Authorities in Ireland.</li> </ul>	<p>Key strategic objectives include:</p> <ul style="list-style-type: none"> <li>• Ensuring Irish Water delivers infrastructural projects that meet key public health, environmental and economic objectives in the water services sector.</li> <li>• Ensuring the provision of adequate water and sewerage services in the gateways and hubs listed in the National Spatial Strategy, and in other locations where services need to be enhanced.</li> <li>• Ensuring good quality drinking water is available to all consumers of public and group water supplies, in compliance with national and EU drinking water standards</li> <li>• Ensuring the provision of the remaining infrastructure needed to provide secondary wastewater treatment, for compliance with the requirements of the EU Urban Wastewater Treatment Directive.</li> <li>• Promoting water conservation through Irish Water’s Capital Investment Plan, the Rural Water Programme and other measures.</li> <li>• Monitoring the on-going implementation of septic tanks inspection regime and the National Inspection Plan for Domestic Waste Water Treatment Systems.</li> <li>• Ensuring a fair funding model to deliver water services.</li> <li>• Overseeing the establishment of an economic regulation function under the CER.</li> </ul>	<p>Implementation of the Guidelines need to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



<p><b>Irish Water’s (now known as Uisce Eireann) Water Services Strategic Plan 2015 and associated Proposed Capital Investment Plan (2020 - 2024)</b></p>	<ul style="list-style-type: none"> <li>This Water Services Strategic Plan sets out strategic objectives for the delivery of water services over the next 25 years up to 2040. It details current and future challenges which affect the provision of water services and identifies the priorities to be tackled in the short and medium term.</li> </ul>	<p>Six strategic objectives as follows:</p> <ul style="list-style-type: none"> <li>Meet Customer Expectations.</li> <li>Ensure a Safe and Reliable Water Supply.</li> <li>Provide Effective Management of Wastewater.</li> <li>Protect and Enhance the Environment.</li> <li>Support Social and Economic Growth.</li> <li>Invest in the Future.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Raised Bog SAC Management Plan and Review of Raised Bog Natural Heritage Areas 2017 - 2022</b></p>	<ul style="list-style-type: none"> <li>Aims to meet nature conservation obligations while having regard to national and local economic, social and cultural needs</li> </ul>	<ul style="list-style-type: none"> <li>Ensure that the implications of management choices for water levels, quantity and quality are fully explored, understood and factored into policy making and land use planning.</li> <li>Review the current raised bog NHA network in terms of its contribution to the national conservation objective for raised bog habitats and determine the most suitable sites to replace the losses of active raised bog habitat and high bog areas within the SAC network and to enhance the national network of NHAs.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



<p><b>Food Harvest 2020</b></p>	<ul style="list-style-type: none"> <li>Food Harvest 2020 is a roadmap for the Irish food industry, as it seeks to innovate and expand in response to increased global demand for quality foods. It sets out a vision for the potential growth in agricultural output after the removal of milk quotas.</li> </ul>	<ul style="list-style-type: none"> <li>Seeks for the improvement of all agricultural sectors at all levels in terms of sustainability, environmental consideration and marketing development.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Agri-vision Action Plan 2015</b></p>	<p>Outlines the vision for agricultural industry to improve competitiveness and response to market demand while respecting and enhancing the environment</p>	<p>not applicable</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Rural Environmental Protection Scheme (REPS)</b>  <b>Agri-Environmental</b></p>	<ul style="list-style-type: none"> <li>Agri-environmental funding schemes aimed at rural development for the environmental enhancement and protection.</li> <li>GLAS is the new replacement for REPS and AEOS which are both expiring.</li> </ul>	<ul style="list-style-type: none"> <li>Establish best practice farming methods and production methods in order to protect landscapes and maximise conservation.</li> <li>Protect biodiversity, endangered species of flora and fauna and wildlife habitats.</li> <li>Ensure food is produced with the highest regard</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users</p>



<p><b>Green, Low-Carbon, Agri-environment Scheme (GLAS)</b></p>		<p>to the environment.</p> <ul style="list-style-type: none"> <li>• Implement nutrient management plans and grassland management plans.</li> <li>• Protect and maintain water bodies, wetlands and cultural heritage.</li> </ul>	<p>and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Rural Development Programme</b></p>	<ul style="list-style-type: none"> <li>• The National Rural Development Programme, prepared by the Department of Agriculture, Fisheries and Food, sets out a national programme based on the EU framework for rural development and prioritises improving the competitiveness of agriculture, improving the environment and improving the quality of life in rural areas</li> </ul>	<p>At a more detailed level, the programme also:</p> <ul style="list-style-type: none"> <li>• Supports structural change at farm level including training young farmers and encouraging early retirement, support for restructuring, development and innovation;</li> <li>• Aims to improve the environment, biodiversity and the amenity value of the countryside by support for land management through funds such as Natura 2000 payments etc.; and</li> <li>• Aims to improve quality of life in rural areas and encouraging diversification of economic activity through the implementation of local development strategies such as non-agricultural activities</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>



<p><b>National Forestry Programme (2014-2020)</b></p>	<ul style="list-style-type: none"> <li>Represents Ireland’s proposals for 100% State aid funding for a new Forestry Programme for the period 2014 – 2020.</li> </ul>	<p>Measures include the following:</p> <ul style="list-style-type: none"> <li>Afforestation and Creation of Woodland</li> <li>NeighbourWood Scheme</li> <li>Forest Roads</li> <li>Reconstitution Scheme</li> <li>Woodland Improvement Scheme</li> <li>Native Woodland Conservation Scheme</li> <li>Knowledge Transfer and Information Actions</li> <li>Producer Groups</li> <li>Innovative Forest Technology</li> <li>Forest Genetic Reproductive Material</li> <li>Forest Management Plans</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>River Basin Management Plan</b></p>	<ul style="list-style-type: none"> <li>River Basin Management Plans set out the measures planned to maintain and improve the status of waters.</li> </ul>	<ul style="list-style-type: none"> <li>Aim to protect and enhance all water bodies in the RBD and meet the environmental objectives outlined in Article 4 of the Water Framework Directive.</li> <li>Identify and manages water bodies in the RBD.</li> <li>Establish a programme of measures for monitoring and improving water quality in the RBD.</li> <li>Involve the public through consultations.</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National</b></p>	<p>This Strategy aims to provide a long-term framework within which all of the peatlands within the State can be managed responsibly in order to optimise their social, environmental and economic contribution to the well-being of this and future generations.</p>	<p>Objectives of the Strategy:</p> <ul style="list-style-type: none"> <li>To give direction to Ireland’s approach to peatland management.</li> <li>To apply to all peatlands, including peat soils.</li> <li>To ensure that the relevant State authorities and state owned companies that influence</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. –</p>



		<p>such decisions contribute to meeting cross-cutting objectives and obligations in their policies and actions.</p> <ul style="list-style-type: none"> <li>• To ensure that Ireland’s peatlands are sustainably managed so that their benefits can be enjoyed responsibly.</li> <li>• To inform appropriate regulatory systems to facilitate good decision making in support of responsible use.</li> <li>• To inform the provision of appropriate incentives, financial supports and disincentives where required.</li> <li>• To provide a framework for determining and ensuring the most appropriate future use of cutover and cutaway bogs.</li> </ul> <p>To ensure that specific actions necessary for the achievement of its objectives are clearly identified and delivered by those involved in or responsible for peatlands management or for decisions affecting their management.</p>	<p>the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Flood Risk Management Plans arising from National Catchment Flood Risk Assessment and Management Programme</b></p>	<ul style="list-style-type: none"> <li>• The national Catchment Flood Risk Assessment and Management (CFRAM) programme commenced in Ireland in 2011 and is being overseen by the Office of Public Works. The CFRAM Programme is intended to deliver on core components of the National Flood Policy, adopted in 2004, and on the requirements of the EU Floods Directive.</li> </ul>	<p>CFRAM Studies have been undertaken for all River Basin Districts. The studies are focusing on areas known to have experienced flooding in the past and areas that may be subject to flooding in the future either due to development pressures or climate change. Flood Risk and Hazard mapping, including Flood Extent Mapping, was finalised in 2017. The final outputs from the studies are the CFRAM Plans, finalised in 2018. The Plans define the current and future flood risk in the River Basin Districts and set out how this risk can be managed.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Draft National Bioenergy Plan 2014 -</b></p>	<p>The Draft Bioenergy Plan sets out a vision as follows:</p>	<p>Three high level goals, of equal importance, based on the concept of sustainable development are</p>	<p>Implementation of the Plan needs to comply with all</p>



<p><b>2020</b></p>	<ul style="list-style-type: none"> <li>Bioenergy resources contributing to economic development and sustainable growth, generating jobs for citizens, supported by coherent policy, planning and regulation, and managed in an integrated manner.</li> </ul>	<p>identified:</p> <ul style="list-style-type: none"> <li>To harness the market opportunities presented by bioenergy in order to achieve economic development, growth and jobs.</li> <li>To increase awareness of the value, opportunities and societal benefits of developing bioenergy.</li> <li>To ensure that bioenergy developments do not adversely impact the environment and its living and non-living resources.</li> </ul>	<p>environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Draft Renewable Electricity Policy and Development Framework (DCCAE) 2016</b></p>	<p>Goal: To optimise the opportunities in Ireland for renewable electricity development on land at significant scale, to serve both the All Island Single Electricity Market and any future regional market within the European Union, in accordance with European and Irish law, including Directive 2009/28/EC: On the promotion of the use of energy from renewable resources.</p>	<p>Objective: To develop a Policy and Development Framework for renewable electricity generation on land to serve both the All Island Single Electricity Market and any future regional market within the European Union, with particular focus on large scale projects for indigenous renewable electricity generation. This will, inter alia, provide guidance for planning authorities and An Bord Pleanála.</p>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>National Alternative Fuels Infrastructure for the Transport Sector (DTTAS) 2017-2030</b></p>	<p>This Framework sets targets to achieve an appropriate level of alternative fuels infrastructure for transport, which is relative to national policy and Irish market needs. Non- infrastructure-based incentives to support the use of the infrastructure and the uptake of alternative fuels are also included within the scope of the Framework.</p>	<p>Targets for alternative fuel infrastructure include the following:</p> <ul style="list-style-type: none"> <li>AFV forecasts</li> <li>Electricity targets</li> <li>Natural gas (CNG, LNG) targets</li> <li>Hydrogen targets</li> <li>Biofuels targets</li> <li>LPG targets</li> <li>Synthetic and paraffinic fuels targets</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and</p>



			management.
<b>Food Wise 2025 (DAFM)</b>	Food Wise 2025 sets out a ten year plan for the agri-food sector. It underlines the sector’s unique and special position within the Irish economy, and it illustrates the potential which exists for this sector to grow even further.	Food Wise 2025 identifies ambitious and challenging growth projections for the industry over the next ten years including: <ul style="list-style-type: none"> <li>• 85% increase in exports to €19 billion.</li> <li>• 70% increase in value added to €13 billion.</li> <li>• 60% increase in primary production to €10 billion.</li> <li>• The creation of 23,000 additional jobs all along the supply chain from producer level to high end value added product development.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>National Network Study 2010</b>	<b>Cycle Scoping</b> <ul style="list-style-type: none"> <li>• Outlines objectives and actions aimed at developing a strong cycle network in Ireland</li> <li>• Sets out 19 specific objectives, and details the 109 actions, aimed at ensuring that a cycling culture is developed</li> </ul>	<ul style="list-style-type: none"> <li>• Sets a target where 10% of all journeys will be made by bike by 2020</li> <li>• Proposes the planning, infrastructure, communication, education and stakeholder participations measures required to implement the initiative</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Strategic Policy (SPPS) NI</b>	<b>Planning Statement</b> The SPPS consolidates some twenty separate policy publications into one document and sets out strategic subject planning policy for a wide range of planning matters. It also provides the core planning principles to underpin delivery of the two-tier planning system with the aim of furthering sustainable development.	<ul style="list-style-type: none"> <li>• The overall objective of the planning system is to further sustainable development and improve well-being for the people of the North.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the





			objectives of the regulatory framework for environmental protection and management.
<b>National Policy Framework For Alternative Fuels Infrastructure for Transport in Ireland 2017 to 2030</b>	<ul style="list-style-type: none"> <li>This National Policy Framework on Alternative Fuels Infrastructure for Transport represents the first step in communicating our longer term national vision for decarbonising transport by 2050, the cornerstone of which is our ambition that by 2030 all new cars and vans sold in Ireland will be zero-emissions capable.</li> <li>By 2030 it is envisaged that the movement in Ireland to electrically-fuelled cars and commuter rail will be well underway, with natural gas and biofuels developing as major alternatives in the freight and bus sectors.</li> </ul>	<p>This policy set out to achieve five key goals in transport:</p> <ul style="list-style-type: none"> <li>Reduce overall travel demand</li> <li>Maximise the efficiency of the transport network</li> <li>Reduce reliance on fossil fuels</li> <li>Reduce transport emissions</li> <li>Improve accessibility to transport</li> </ul> <p>These goals remain the cornerstone of transport policy and are fully aligned to the objectives of this National Policy Framework.</p>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Regional/ County/Local Level</b>			
<b>Regional Economic and Spatial Strategies</b>	The Regional Spatial and Economic Strategies provide a long-term regional level strategic planning and economic framework in support of the implementation of the National Planning Framework.	The Eastern and Midland Regional Economic and Spatial Strategy includes provisions for its 12 constituent local authorities: Fingal County Council; Dublin City Council; South Dublin County Council; Dún Laoghaire-Rathdown County Council; Louth County Council; Kildare County Council; Meath County Council; Wicklow County Council; Longford County Council; Laois County Council; Offaly County Council; and Westmeath County Council.	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental



		<p>The Southern Regional Economic and Spatial Strategy includes provisions for its nine constituent local authorities: Waterford City and County Council, Cork City Council, Cork County Council, Tipperary County Council, Wexford County Council, Kerry County Council, Clare County Council, Limerick City and County Council, Kilkenny County Council and Carlow County Council.</p> <p>The Northern and Western Regional Spatial and Economic Strategy includes provisions for its eight constituent local authorities: Donegal County Council, Leitrim County Council, Sligo County Council, Cavan County Council, Monaghan County Council, Mayo County Council, Roscommon County Council; and Galway County Council.</p>	protection and management.
<b>Regional Development Strategy 2035 (Northern Ireland)</b>	<ul style="list-style-type: none"> <li>• Spatial strategy for the future development of Northern Ireland.</li> <li>• Strategic planning framework to facilitate and guide public and private sectors.</li> </ul>	<ul style="list-style-type: none"> <li>• Aims to provide long-term policy direction with a strategic spatial perspective.</li> </ul>	Implementation of the Guidelines need to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Greater Dublin Area (GDA) Transport Strategy (2016-2035)</b>	<ul style="list-style-type: none"> <li>• It sets out how transport will be developed across the region, covering Dublin, Meath, Wicklow and Kildare, over the period of the</li> </ul>	<p>They set out a number of core principles deriving from the strategic vision, which are:</p> <ul style="list-style-type: none"> <li>• Dublin as the capital city of Ireland and a major European centre shall grow and progress,</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively



	<p>strategy and has been approved by the Minister for Transport, Tourism and Sport in accordance with the relevant legislation.</p> <ul style="list-style-type: none"> <li>The Vision Statement: <i>“The GDA by 2022 is an economically vibrant, active and sustainable international Gateway Region, with strong connectivity across the GDA Region, nationally and worldwide; a region which fosters communities living in attractive, accessible places well supported by community infrastructure and enjoying high quality leisure facilities; and promotes and protects across the GDA green corridors, active agricultural lands and protected natural areas.”</i></li> </ul> <p>Full SEA and Stage 2 AA have been undertaken on this Strategy</p>	<p>competing with other cities in the EU, and serving a wide range of international, national, regional and local needs.</p> <ul style="list-style-type: none"> <li>The Dublin and Mid-East Regions will be attractive, vibrant locations for industry, commerce, recreation and tourism and will be a major focus for economic growth within the Country.</li> <li>The GDA, through its ports and airport connections will continue to be the most important entry/exit point for the country as a whole, and as a Gateway between the European Union and the rest of the World. Access to and through the GDA will continue to be a matter of national importance.</li> <li>Development in the GDA shall be directly related to investment in integrated high quality public transport services and focused on compact urban form.</li> <li>Development within the existing urban footprint of the Metropolitan Area will be consolidated to achieve a more compact urban form</li> <li>Development in the Hinterland Area will be focused on the high quality integrated growth and consolidation of development in key identified towns, separated from each other by extensive areas of strategic green belt land devoted to agriculture and similar uses.</li> </ul>	<p>contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.</p>
<p><b>Transport Strategy for the Cork Metropolitan Area 2040</b></p>	<ul style="list-style-type: none"> <li>The Strategy addresses all transport modes and its objective will be to provide a long-term strategic planning framework for the integrated development of transport infrastructure and services in</li> </ul>	<ul style="list-style-type: none"> <li>It will be used to inform transport investment levels and investment prioritisation over both the longer and shorter terms and will be able to inform sustainable integrated land use and transport policy formulation at the strategic</li> </ul>	<p>Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in</p>



	the Cork Metropolitan Area, over the next two decades	(Metropolitan Area) level and at the local level.	combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Greater Dublin Area Cycle Network Plan</b>	<ul style="list-style-type: none"> <li>• Sets out a ten year cycling strategy for Counties Dublin, Kildare, Meath and Wicklow</li> <li>• Plan to increase regions cycle network dramatically</li> <li>• The Plan refers to the EuroVelo International Cycle Route Network of the European Cyclists Federation is a network of 15 long distance cycle routes connecting and uniting the whole European continent. Two of these routes are in Ireland including EV2 from Galway through Dublin to London, Berlin, Warsaw and Moscow.</li> </ul>	<p>Aims to identify and determine:</p> <ul style="list-style-type: none"> <li>• The Urban Cycle Network at the Primary, Secondary and Feeder level</li> <li>• The Inter-Urban Cycle Network linking the relevant sections of the Urban Network including the elements of the National Cycle Network within the Greater Dublin Area including linkages to key transport locations outside of urban areas such as airports and ports</li> <li>• The Green Route Network being cycle routes for development of tourist, recreational and leisure purposes.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Dublin to Galway Greenway Plan</b>	<ul style="list-style-type: none"> <li>• Develop a segregated cycling and walking trail to international standards, extending from Dublin City to Galway which is of a scale that will allow Ireland to harness the potential of an identified growing tourism market for cycling.</li> <li>• This route forms part of an interconnected National Cycle Network of high quality, traffic free, inter urban routes, which will establish Ireland as a quality international tourism destination</li> </ul>	<ul style="list-style-type: none"> <li>• To provide a segregated, substantially off road cycle route from Dublin City to Clifden via Galway City, maximising the use of – where feasible – existing and approved routes and disused railway line corridors and to also use existing plans and/or permitted projects where these have been subject to a consent process that has previously included the carrying out or screening for SEA, EIA and AA.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection



	for a broad range of associated recreational activities and pursuits.		and management.
<b>Regional Development Strategy 2035 (Northern Ireland)</b>	<ul style="list-style-type: none"> <li>• Spatial strategy for the future development of Northern Ireland.</li> <li>• Strategic planning framework to facilitate and guide public and private sectors.</li> </ul>	<ul style="list-style-type: none"> <li>• Aims to provide long-term policy direction with a strategic spatial perspective.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Water Quality Management Plans</b>	<ul style="list-style-type: none"> <li>• Ensure that the quality of waters covered by the plan is maintained.</li> <li>• Maintain and improve the quantity and quality of water included in the Plan scope.</li> </ul>	<ul style="list-style-type: none"> <li>• Monitoring of water bodies against quality standards.</li> <li>• Outlines management programmes for water catchments.</li> <li>• Purpose is to maintain and improve the quantity and quality of groundwater.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Port Masterplans (such as Dublin Port Masterplan 2012-2040 and 2017 Review)</b>	<ul style="list-style-type: none"> <li>• The Masterplan sets out a vision for the operations of the port and land utilisation.</li> <li>• The Masterplan is a non-statutory plan which has nonetheless been framed within the context of EU, national, regional and local development plan</li> </ul>	Not applicable	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. –



	policies.		the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>NPWS Conservation Plans and/or Conservation Objectives for SACs and SPAs</b>	<p>Management planning for nature conservation sites has a number of aims. These include:</p> <ul style="list-style-type: none"> <li>To identify and evaluate the features of interest for a site</li> <li>To set clear objectives for the conservation of the features of interest</li> <li>To describe the site and its management</li> <li>To identify issues (both positive and negative) that might influence the site</li> <li>To set out appropriate strategies/management actions to achieve the objectives</li> </ul>	<ul style="list-style-type: none"> <li>Conservation objectives for SACs and SPAs (i.e. sites within the Natura 2000 network) have to be set for the habitats and species for which the sites are selected.</li> <li>These objectives are used when carrying out appropriate assessments for plans and projects that might impact on these sites.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Groundwater Protection Schemes</b>	<ul style="list-style-type: none"> <li>A Groundwater Protection Scheme provides guidelines for the planning and licensing authorities in carrying out their functions, and a framework to assist in decision-making on the location, nature and control of developments and activities in order to protect groundwater.</li> </ul>	<ul style="list-style-type: none"> <li>A Groundwater Protection Scheme aims to maintain the quantity and quality of groundwater, and in some cases improve it, by applying a risk assessment-based approach to groundwater protection and sustainable development.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Local Economic and Community Plans (LECP)</b>	<ul style="list-style-type: none"> <li>The overarching vision for each LECP is: “to promote the well-being and quality of life of citizens and communities”</li> </ul>	<ul style="list-style-type: none"> <li>The purpose of the LECP, as provided for in the Local Government Reform Act 2014, is to set out, for a six-year period, the objectives and actions needed to promote and support the economic development and the local and community</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in



		development of the relevant local authority area, both by itself directly and in partnership with other economic and community development stakeholders.	combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Development Plans, Local Area Plans, Planning Schemes</b>	<ul style="list-style-type: none"> <li>• Outlines planning objectives for land use development (including transport objectives).</li> <li>• Strategic framework for planning and sustainable development including those set out in National Planning Framework and Regional Economic and Spatial Strategies.</li> <li>• Sets out the policies and proposals to guide development in the specific Local Authority area.</li> </ul>	<ul style="list-style-type: none"> <li>• Identifies future infrastructure, development and zoning required.</li> <li>• Protects and enhances amenities and environment.</li> <li>• Guides planning authority in assessing proposals.</li> <li>• Aims to guide development in the area and the amount of nature of the planned development.</li> <li>• Aims to promote sustainable development.</li> <li>• Provide for economic development and protect natural environmental, heritage.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Green Infrastructure Plans/Strategies</b>	<ul style="list-style-type: none"> <li>• Promotes the maintenance and improvement of green infrastructure in an area.</li> <li>• Aims to protect and enhance biodiversity and habitats.</li> </ul>	not applicable	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Biodiversity Action Plans</b>	<ul style="list-style-type: none"> <li>• Aims to protect, conserve, enhance and restore biodiversity and ecosystem</li> </ul>	<ul style="list-style-type: none"> <li>• Outlines the status of biodiversity and identifies species of importance.</li> </ul>	Implementation of the Plan needs to comply with all



	services across all spectrums.	<ul style="list-style-type: none"> <li>• Outlines objectives and targets to be met to maintain and improve biodiversity.</li> <li>• Aims to increase awareness.</li> </ul>	environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Heritage Plans</b>	<ul style="list-style-type: none"> <li>• Aims to highlight the importance of heritage at a strategic level.</li> </ul>	<ul style="list-style-type: none"> <li>• Manage and promote heritage as well as increase awareness.</li> <li>• Aim to conserve and protect heritage.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>County Landscape</b>	<ul style="list-style-type: none"> <li>• Characterises the geographical dimension of the landscape.</li> </ul>	<ul style="list-style-type: none"> <li>• Identifies the quality, value, sensitivity and capacity of the landscape area.</li> <li>• Guides strategies and guidelines for the future development of the landscape.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and





			management.
<b>Freshwater Pearl Mussel Sub-Basin Management Plans</b>	<ul style="list-style-type: none"> <li>Identifies the current status of the species and the reason for loss or decline.</li> <li>Identifies measure required to improve or restore current status.</li> </ul>	<ul style="list-style-type: none"> <li>Identifies pressures on Freshwater Pearl Mussels for each of the designated populations in Ireland.</li> <li>Outlines restoration measures required to ensure favourable conservation status.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Local Catchment Flood Risk Management Plans</b>	<ul style="list-style-type: none"> <li>Produced by Local Authorities.</li> <li>Outlines areas local flood risk.</li> <li>Sets out measures to manage and prevent flood risk at a local level.</li> </ul>	not applicable	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Shellfish Pollution F</b>	Aims to improve water quality and ensure the protection or improvement of designated shellfish waters in order to support shellfish life and growth and contribute to the high quality of shellfish products directly edible by man.	<ul style="list-style-type: none"> <li>Identifies key and secondary pressures on water quality in designated shellfish areas.</li> <li>Outlines specific measures to address identified key and secondary pressures on water quality.</li> <li>Addresses the specific pressures acting on water quality in each area.</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the



			achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Regional Waste Management Plans</b>	These plans (for the Connacht-Ulster, Southern, and Eastern-Midlands regions) give effect to national and EU waste policy, and address waste prevention and management (including generation, collection and treatment) over the period 2015-2021.	To manage wastes in a safe and compliant manner, a clear strategy, policies and actions are required.	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection and management.
<b>Draft Climate Change Action Plans 2019 - 2024</b>	Dublin’s four local authorities have joined together to develop Climate Change Action Plans as a collaborative response to the impact that climate change is having, and will continue to have, on the Dublin Region and its citizens. While each plan is unique to its functional area, they are unified in their approach to climate change adaptation and mitigation, and their commitment to lead by example in tackling this global issue.	The Climate Change Action Plan features a range of actions across five key areas - Energy and Buildings, Transport, Flood Resilience, Nature-Based Solutions and Resource Management - that collectively address the four targets of this plan: <ul style="list-style-type: none"> <li>• A 33% improvement in the Council’s energy efficiency by 2020</li> <li>• A 40% reduction in the Council’s greenhouse gas emissions by 2030</li> <li>• To make Dublin a climate resilient region, by reducing the impacts of future climate change - related events</li> <li>• To actively engage and inform citizens on climate change</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection.
<b>Noise Action Plans</b>	The Noise Action Plans are prepared in accordance with the requirements of the Environmental Noise Regulations 2006,	The main purpose of the Noise Action Plan is to: <ul style="list-style-type: none"> <li>• Inform and consult the public about noise exposure, its effects and the measures which</li> </ul>	Implementation of the Plan needs to comply with all environmental legislation and



	<p>Statutory Instrument 140 of 2006. These Regulations give effect to the EU Directive 2002/49/EC relating to the assessment and management of environmental noise. This Directive sets out a process for managing environmental noise in a consistent manner across the EU and the Noise Regulations set out the approach to meeting the requirements of the Directive in Ireland.</p>	<p>may be considered to address noise problems</p> <ul style="list-style-type: none"> <li>• Address strategic noise issues by requiring competent authorities to draw up action plans to manage noise issues and their effects</li> <li>• Reduce noise, where possible, and maintain the environmental acoustic quality where it is good</li> </ul>	<p>align with and cumulatively contribute towards – in combination with other users and bodies and their plans etc. – the achievement of the objectives of the regulatory framework for environmental protection.</p>
--	---	---	---



## Relevant EU and National Legislation

Legislation <sup>19</sup>	Context
<p><b>European &amp; National regulations that are relevant to planning the transmission network:</b></p> <ul style="list-style-type: none"> <li>• Directive 2009/72/EC concerning common rules for the internal market in electricity and repealing Directive 2003/54/EC;</li> <li>• Directive 2009/ 72/ EC;</li> <li>• Directive 2009/ 28/ EC;</li> <li>• Directive 2012/ 27/ EC;</li> <li>• Statutory Instrument (SI) No. 445 of 2000 as amended; and</li> <li>• Statutory Instrument (SI) No. 147 of 2011.</li> </ul>	<p>European regulations, relevant to planning the transmission network.</p>
<p><b>SEA Directive 2001/42/EC:</b></p> <ul style="list-style-type: none"> <li>• European Communities (Environmental Assessment of Certain Plans and Programmes) Regulations 2004 (S.I. No. 435 of 2004) as amended; and</li> <li>• European Communities (Environmental Assessment of Certain Plans and Programmes) (Amendment) Regulations 2011 (S.I. No. 200 of 2011) as amended.</li> </ul>	<p>EU Directive 2001/42/EC on the Assessment of the Effects of Certain Plans and Programmes on the Environment (the SEA Directive) established the requirement for SEA as part of high-level decision-making process and the development of plans and programmes.</p>
<p><b>EU Energy Efficiency Directive 2012/27/EU</b></p>	<p>EU Directive 2012/27/EU establishes a set of binding measures to help the EU reach its 20% energy efficiency target by 2020. Under the Directive, all EU countries are required to use energy more efficiently at all stages of the energy chain from its production to its final consumption.</p>
<p><b>EU Renewable Energy Directive 2009/28/EC</b></p>	<p>Establishes an overall policy for the production and promotion of energy from renewable sources in the EU. It requires the EU to fulfil at least 20% of its total energy needs with renewables by 2020 – to be achieved through the attainment of individual national targets.</p>
<p><b>Water Framework Directive (2000/60/EC):</b></p> <ul style="list-style-type: none"> <li>• Env. Quality Standards Directive 2008/105/EC;</li> <li>• The Water Policy Regulations (S.I. No. 722 of 2003);</li> <li>• The Surface Waters Regulations (S.I. No. 272 of 2009); and</li> <li>• The Groundwater Regulations (S.I. No. 9 of 2010).</li> </ul>	<p>The EU Water Framework Directive requires all Member States to protect and improve water quality in all waters so that we achieve good ecological status by 2015 or, at the latest, by 2027. It applies to rivers, lakes, groundwater, and transitional coastal waters. The Directive requires that management plans be prepared on a river basin basis and specifies a structured method for developing these plans.</p>



Legislation <sup>19</sup>	Context
<p><b>Birds Directive (2009/147/EC) and Habitats Directive (92/43/EEC):</b></p> <ul style="list-style-type: none"> <li>• European Communities (Birds and Natural Habitats) Regulations 2011 (S.I. No. 477 of 2011); and</li> <li>• European Communities (Birds and Natural Habitats) (Amendment) Regulations 2015 (S.I. No. 355 of 2015).</li> </ul>	<p>The EU Birds Directive requires all EU Member States to take measures to protect all wild birds and their habitats. The Birds Directive aims to protect all of the 500 wild bird species naturally occurring in the European Union.</p> <p>The EU Habitats Directive requires all EU Member States to ensure the conservation of a wide range of rare, threatened or endemic animal and plant species. Within this Directive, some 200 rare and characteristic habitat types are also targeted for conservation in their own right.</p>
<p><b>Marine Strategy Framework Directive (2008/56/EC):</b></p> <ul style="list-style-type: none"> <li>• European Communities (Marine Strategy Framework) Regulations (S.I. No. 249 of 2011).</li> </ul>	<p>The EU Marine Strategy Framework Directive (Marine Directive) requires all EU Member States to take measures to protect more effectively the marine environment across Europe. The Marine Directive aims to achieve ‘Good Environmental Status, (GES)’ of the EU’s marine waters by 2020 and to protect the resource base upon which marine-related economic and social activities depend.</p>
<p><b>Maritime Spatial Planning Directive (2014/89/EU)</b></p>	<p>The EU Spatial Planning Directive requires member states to work across borders and sectors to ensure that any human activities at sea are carried out in an efficient, safe and sustainable manner. In Ireland, a roadmap to the development of Ireland’s first marine spatial plan, towards a Marine Spatial Plan for Ireland’ was published in December 2017. It is expected that the final plan will be prepared for submission to the Government.</p>
<p><b>Environmental Impact Assessment Directive (2014/52/EU):</b></p> <ul style="list-style-type: none"> <li>• Not yet transposed as Irish National Legislation, expected before 2017.</li> </ul>	<p>The EU EIA Directive (2014/52/EU) amends the previous EIA Directive (2011/92/EU) on the assessment of the effects of certain public and private projects on the environment. It introduced changes in EIA requirements across the EU such as the introduction of mandatory ‘Competent Experts’, changes to screening procedures, and mandatory post-EIA monitoring. This Directive was expected to be enforced in Ireland by May 2017 but came into effect in September 2018.</p>
<p><b>2020 Climate and Energy Package and associated legislation</b></p>	<p>This package is comprised of a set of binding legislation to ensure the EU meets its climate and energy targets for the year 2020. The package sets three key targets as follows:</p> <ul style="list-style-type: none"> <li>• 20% cut in greenhouse gas emissions (from 1990 levels);</li> <li>• 20% of EU energy from renewables; and</li> <li>• 20% improvement in energy efficiency.</li> </ul>
<p><b>The Climate Action and Low Carbon Development Act 2015</b></p>	<p>The Climate Action and Low Carbon Development Act 2015, provides for the making of five-yearly National Mitigation Plans to specify the policy measures to reduce greenhouse gas emissions and a National Adaptation Framework to specify the national strategy for the application of adaptation measures in different sectors and by Local Authorities to reduce the vulnerability of the State to the negative effects of climate change.</p>



Legislation <sup>19</sup>	Context
<p><b>Flood Directive (2007/60/EC):</b></p> <ul style="list-style-type: none"> <li>European Communities (Assessment and Management of Flood Risks) Regulations 2010. (S.I. No. 122 of 2010).</li> </ul>	<p>The EU 'Floods Directive' requires all EU Member States to assess if all water courses and coast lines are at risk from flooding, to map the flood extent and assets and humans at risk in these areas and to take adequate and coordinated measures to reduce this flood risk.</p>
<p><b>Non-exhaustive list of Planning related legislation:</b></p> <ul style="list-style-type: none"> <li>Planning and Development Act 2000;</li> <li>Planning and Development (Strategic Infrastructure) Act 2006; and</li> <li>Planning &amp; Development Regulations 2001-2015.</li> </ul>	<p>Irish Planning related legislation that is relevant to planning the transmission network.</p>
<p><b>Non-exhaustive list of Cultural Heritage related legislation:</b></p> <ul style="list-style-type: none"> <li>National Monuments Act 1930 as amended;</li> <li>Architectural Heritage (National Inventory) and Historic Monuments (Miscellaneous Provisions) Act 1999; and</li> <li>The Heritage Act 1995.</li> </ul>	<p>Irish Cultural Heritage regulations that are relevant to the planning the transmission network.</p>
<p><b>Ambient Air Quality and Cleaner Air for Europe (CAFE) Directive (2008/50/EC):</b></p> <ul style="list-style-type: none"> <li>Air Quality Standards Regulations 2011 (S.I. No. 180 of 2011).</li> </ul>	<p>Set down air quality standards in Ireland for a wide variety of pollutants.</p>
<p><b>Integrated Pollution Prevention Control Directive (96/61/EC replaced by 2008/1/EC):</b></p> <ul style="list-style-type: none"> <li>Environmental Protection Agency Act 1992, amended by the Protection of the Environment Act 2003; and</li> <li>Environmental Protection Agency (Integrated Pollution Control) (Licensing) Regulations 2013.</li> </ul>	<p>Regulates the licencing of industrial sites, including energy production.</p>
<p><b>Noise Directive (2002/49/EC):</b></p> <ul style="list-style-type: none"> <li>Environmental Noise Regulations 2006 (S.I. No. 140 of 2006).</li> </ul>	<p>EU and Irish environmental noise related legislation.</p>



## Relevant Plans and Programmes

Scale	Plan or Programme	Context
International / EU	The Kyoto Protocol	<ul style="list-style-type: none"> <li>First international agreement in which many of the world's industrial nations concluded a verifiable agreement to reduce their emissions of six greenhouse gases in order to prevent global warming.</li> </ul>
	EU Biodiversity Strategy	<ul style="list-style-type: none"> <li>The EU Strategy aims to halt the loss of biodiversity and ecosystem services in the EU and help stop global biodiversity loss by 2020. It reflects the commitments taken by the EU in 2010, within the international Convention on Biological Diversity.</li> </ul>
	UK Marine Policy Statement	<ul style="list-style-type: none"> <li>This Statement is the framework for preparing marine plans and taking decisions affecting the marine environment and was jointly adopted across the UK Administrations including the Department of the Environment in Northern Ireland.</li> </ul>
National	National Planning Framework (NPF): Ireland 2040: Our Plan	<ul style="list-style-type: none"> <li>20-year strategy identifying strategic development requirements, infrastructure requirements and promoting sustainable strategies for the future.</li> </ul>
	National Development Plan 2018 – 2027	<ul style="list-style-type: none"> <li>Sets out the investment priorities that will underpin the successful implementation of the National Planning Framework.</li> </ul>
	National Development Plan (NDP) 2007-2013	<ul style="list-style-type: none"> <li>Promotes security of energy supply, competitive prices and long-term energy diversification.</li> </ul>
	National Spatial Strategy (NSS) 2002-2020	<ul style="list-style-type: none"> <li>20-year planning framework for Ireland. Contains energy-related provisions for the significant development of the transmission network and new energy generation in regions across the country.</li> </ul>
	Capital Investment Plan 2016 – 2021	<ul style="list-style-type: none"> <li>Framework for investment in infrastructure in Ireland 2016-2021.</li> </ul>
	Energy White Paper: Delivering a Sustainable Energy Future for Ireland-the Energy Policy Framework 2007-2020	<ul style="list-style-type: none"> <li>Actions to achieve electricity supply which consistently meets demand and sets a target to meet 33% of consumption from renewable energy by 2020.</li> </ul>
	Framework for Sustainable Development in Ireland (2012)	<ul style="list-style-type: none"> <li>Outlines Ireland's Framework for Sustainable Development. Its timeframe is to 2020 to tie in with other national and international frameworks, but a longer-term horizon to 2050 is also considered where appropriate, to provide a framework for guiding and reporting on long-term broad development trends such as on climate change.</li> </ul>
	National Renewable Energy Action Plan	<ul style="list-style-type: none"> <li>Outlines Ireland's national trajectories for the share of energies from renewable sources consumed in transport, electricity, heating and cooling between now and 2020.</li> </ul>
	National Climate Change Adaptation Framework (2012)	<ul style="list-style-type: none"> <li>Provides the policy context for a strategic national adaptation response to climate change in Ireland and is designed to evolve over time as planning and implementation progresses, and as further evidence becomes available.</li> </ul>



Scale	Plan or Programme	Context
	National Mitigation Plan (2017)	<ul style="list-style-type: none"> <li>• Outlines measures for transitioning Ireland to a low carbon, climate resilient and environmentally sustainable economy by 2050.</li> <li>• Includes over 100 individual actions for various Ministers and public bodies to take forward as we move to implementation of what will be a living document.</li> </ul>
	National Energy Efficiency Action Plan 3 (NEEAP) (2014)	<ul style="list-style-type: none"> <li>• Each NEEAP outlines the energy efficiency measures that will be implemented to reach the national energy saving targets as well as the progress towards this target.</li> </ul>
	Renewable Electricity Policy and Development Framework (DCCA, ongoing).	<ul style="list-style-type: none"> <li>• The aim of this framework is to guide the development of renewable electricity projects.</li> </ul>
	Wind Farm Development Guidelines 2006 (currently under review)	<ul style="list-style-type: none"> <li>• Outline the guidelines to planning authorities on planning for wind energy through the development plan process and in determining planning permission.</li> </ul>
	Offshore Renewable Energy Development Plan (OREDPA) including interim review	<ul style="list-style-type: none"> <li>• Describes the policy context for the development of offshore wind, wave and tidal energy in Irish waters.</li> </ul>
	Water Service Strategic Plan (WSSP)	<ul style="list-style-type: none"> <li>• Provides strategic objectives for the delivery of water services up until 2040.</li> </ul>
	A National Landscape Strategy (NLS) for Ireland	<ul style="list-style-type: none"> <li>• Mapping out paths toward sustainable development and management of national-human and natural-resources. This includes the Future National Landscape Character Assessment.</li> </ul>
	National Biodiversity Plan (NBP)	<ul style="list-style-type: none"> <li>• Actions to raise awareness about the link between plans/programmes and biodiversity impacts.</li> </ul>
	National Heritage Plan (published in 2002)	<ul style="list-style-type: none"> <li>• Outlines stipulations for proper planning, conservation and management of national heritage for all plans/programmes.</li> </ul>
	The Irish Geological Heritage Programme 1998 - ongoing	<ul style="list-style-type: none"> <li>• Promotes awareness and protection of significant geological heritage sites.</li> </ul>
	Government Policy Statement on Strategic Importance of Transmission and Other Energy Infrastructure 2012	<ul style="list-style-type: none"> <li>• Endorses the major investment underway in the high voltage electricity transmission system under EirGrid 's Grid25 Programme.</li> </ul>
	National Policy Framework on Alternative Fuels Infrastructure for Transport (AFF)	<ul style="list-style-type: none"> <li>• Sets an ambitious target that by 2030 all new cars and vans sold in Ireland will be zero emissions (or zero emissions capable) with the use of fossil fuels vehicles rapidly receding.</li> </ul>
	Ireland and the Climate Change Challenge - Connecting How Much with How to (2012)	<ul style="list-style-type: none"> <li>• Outlines the National Economic and Social Council Secretariat's vision for Ireland in 2050 as a carbon-neutral society. The report also outlines proposals for a pragmatic approach toward climate change.</li> </ul>





Scale	Plan or Programme	Context
Regional, County and Local	River Basin Management Plans & draft River Basin Management Plan	<ul style="list-style-type: none"> <li>Plan setting out the status of waters in the River Basin Districts (RBDs); the proposed environmental objectives and the draft programme of measures to achieve those objectives by 2021.</li> </ul>
	Flood Risk Management Plans (FRMP) 2017	<ul style="list-style-type: none"> <li>Plans which set out a range of proposed measures and actions to manage and reduce flood risk within the catchments and coastal reaches covered by each Plan, focussing on the 300 areas of potentially significant flood risk around Ireland that were previously identified under the Preliminary Flood Risk Assessment (PFRA). These areas are referred to under the programme as Areas for Further Assessment (AFA).</li> </ul>
	Catchment Flood Risk Assessment and Management Programme	<ul style="list-style-type: none"> <li>Delivers on core components of the <u>National Flood Policy</u>, adopted in 2004, and on the requirements of the <u>EU 'Floods' Directive</u>; central to the medium to long-term strategy for the reduction and management of flood risk in Ireland.</li> </ul>
	Regional Spatial and Economic Strategies (RSEs)	<ul style="list-style-type: none"> <li>Act as building-blocks for sub-regional spatial and economic planning and statutory committees.</li> </ul>
	County Development Plans (various dates)	<ul style="list-style-type: none"> <li>Provides detailed county-level strategies to allow for the proper planning and sustainable development of an area.</li> </ul>
	County Wind Energy Strategies	<ul style="list-style-type: none"> <li>Provides recommendations for wind energy development policy and practice.</li> </ul>
	County Renewable Energy Strategies	<ul style="list-style-type: none"> <li>Provides for the preparation of County-level renewable energy strategies.</li> </ul>
	Regional Spatial and Economic Strategies (RSEs)	<ul style="list-style-type: none"> <li>Act as building-blocks for sub-regional spatial and economic planning and statutory committees.</li> </ul>
	County Biodiversity and or Heritage Plans (were available, various dates)	<ul style="list-style-type: none"> <li>Outlines stipulations for proper planning, conservation and management of biodiversity and heritage for all plans/programmes at a county level.</li> </ul>
	County Landscape Character Assessments (LCA)	<ul style="list-style-type: none"> <li>The LCA classifies and describes the landscape in a county.</li> </ul>
	County based waste management strategies and mineral plans	<ul style="list-style-type: none"> <li>Establishes a framework for the sustainable management of wastes generated in the county.</li> </ul>
County-based recreation strategies	<ul style="list-style-type: none"> <li>Develops a framework to coordinate the objectives and targets of key stakeholders in a cohesive and integrated plan for the county, ensuring the provision, management and use of quality facilities and services for everyone, including future generations.</li> </ul>	
	Local, City, Town and Electoral Area/Development Plans (where available, various dates)	<ul style="list-style-type: none"> <li>Statutory requirements for proper planning and sustainable development of a local area.</li> </ul>
EirGrid Plans	Your Grid, Your Tomorrow: Ireland's Grid Development Strategy 2016.	<ul style="list-style-type: none"> <li>Explain the need for, and drivers of, grid development.</li> </ul>
	Transmission Development Plan (TDP)	<ul style="list-style-type: none"> <li>Annual rolling operational document outlining the Draft Grid IP for the development of the ITS and interconnection.</li> </ul>

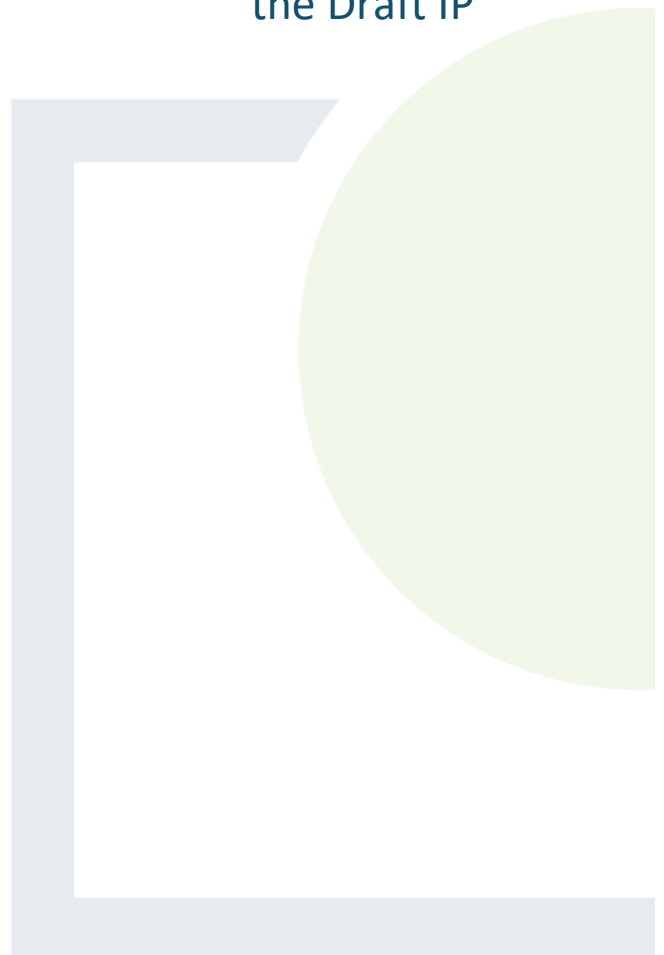


**FEHILY  
TIMONEY**

**CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE  
& PLANNING**

## **APPENDIX B**

Full List Of Projects within  
the Draft IP





This section of the SEA ER is being assessed iteratively along with the development of the Draft Grid IP. Before the finalisation and adoption of the Draft Grid IP along with the SEA and AA process a comprehensive list of the current list of projects will be compiled. These are all currently part of the Draft Grip IP.

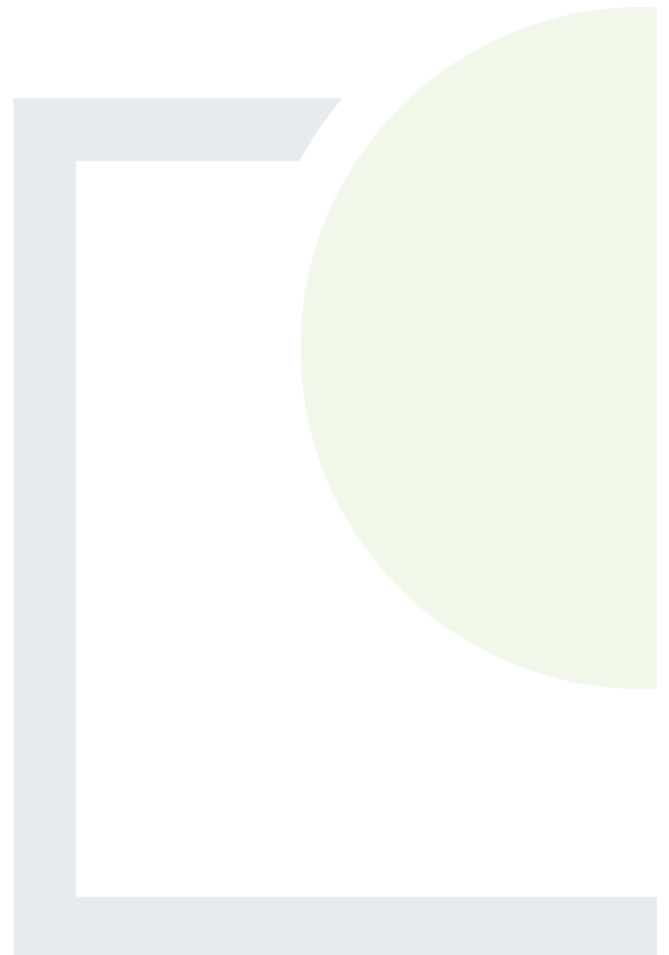


**FEHILY  
TIMONEY**

**CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE  
& PLANNING**

## **APPENDIX C**

SEA Scoping Submission  
Summary





Comment/Issue Raised
<b>The EPA</b>
<p>This submission includes both general and specific issues to be considered in the Draft Grid IP and SEA processes. Appendix I included responses to the scoping questions posed in the SEA Scoping Report.</p> <p>Appendix II provides links to Useful Planning and Environmental Resources and High-Level Plans/Programmes/Strategies.</p> <p>A copy of the Executive Summary of Ireland’s Environment - An Assessment- and Section 13 - “<i>Environmental Challenges and Emerging Issues for Ireland</i>” are provided separately in Attachments I and II respectively.</p>
<p>There are a number of significant key influential plans/programmes/strategies currently underway at national and regional level which should be considered in preparing and implementing the Draft Grid IP and in the SEA process.</p> <p>These include the National Planning Framework (NPF), Regional Spatial and Economic Strategies (RSES), second cycle of the Water Framework Directive River Basin Management Plans, National Policy Framework on Alternative Fuels Infrastructure for Transport (AFF), National Mitigation Plan (NMP), Offshore Renewable Energy Development Plan (OREDPA), Renewable Electricity Policy and Development Framework, National Catchment Flood Risk Assessment and Management (CFRAM) Studies and Sectoral (and Local Authority) Climate Change Adaptation Plans/ Strategies.</p>
<p>A list of additional Plans/Programmes/Strategies to be considered is also provided in Appendix II. Other relevant plans identified during the scoping and on-going consultation should also be taken into account.</p>
<p><u><i>EPA State of the Environment Report for 2016</i></u></p> <p>The EPA has recently published the State of the Environment Report for 2016 ‘Ireland’s Environment – An Assessment (EPA, 2016). The “<i>Environmental Challenges and Emerging Issues for Ireland</i>” and the associated Key Environmental Actions for Ireland are highlighted in Appendix 1 and included Attachments I and II.</p> <p>The main report and the attachments to this submission will provide a useful resource to inform the key environmental related policies to be reflected in the Pan and the key issues to be addressed in the SEA. See: <a href="http://www.epa.ie/irelandsenvironment/stateoftheenvironmentreport/">http://www.epa.ie/irelandsenvironment/stateoftheenvironmentreport/</a></p>
<p>Scoping Process Guidance on the SEA Scoping Process, including an SEA Pack, Integration Guidance, SEA Checklist, SEA Spatial Information Sources and guidance on Integrating Climate Change into SEA, is available on the EPA website and should be considered in the preparation of the SEA.</p> <p>See: <a href="http://www.epa.ie/pubs/advice/ea/">http://www.epa.ie/pubs/advice/ea/</a></p>
<p>Guidance on Developing and Assessing Alternatives in SEA <a href="http://www.epa.ie/pubs/advice/ea/developingandassessingalternative">http://www.epa.ie/pubs/advice/ea/developingandassessingalternative</a> (EPA, 2015) is also available at: <a href="http://www.epa.ie/pubs/advice/ea/developingandassessingalternative">sinsea.html</a></p>
<p>The EPA's GIS based SEA Search and Reporting Tool application can be accessed via: <a href="http://www.edenireland.ie">www.edenireland.ie</a></p>
<p><b>Environmental Authorities</b></p> <p>Under the SEA Regulations (S.I. No. 435 of 2004), as amended by S.I. No. 200 of 2011, notice should also be given to the following:</p> <ul style="list-style-type: none"> <li>• The Minister for the Environment, Community and Local Government (now the Minister for Housing, Planning, Community and Local Government).</li> <li>• Minister for Agriculture, Food and the Marine, and the Minister for Communications Energy and Natural Resources (now the Minister for Communications, Climate Action and Environment), where it appears to the planning authority that the plan or programme, or modification of the plan or programme, might have significant effects on fisheries or the marine environment.</li> <li>• Where it appears to the competent authority that the plan or programme, or amendment to a plan or programme, might have significant affects in relation to the architectural heritage or to nature conservation, the Minister for Arts, Heritage and the Gaeltacht (now the Minister for Arts, Heritage, Regional, Rural and Gaeltacht Affairs).</li> </ul>



**Comment/Issue Raised**

The requirements for notifications in relation to SEA scoping are set out under Article 11 of the SEA Regulations (S.I. No. 435 of 2004).

**The Department of Communications, Climate Action and Environment on behalf of Inland Fisheries Ireland**

Inland Fisheries Ireland (IFI) is a Statutory Body established on the 1st July 2010.

Under section 7(1) of the Inland Fisheries Act 2010 (No. 10 of 2010) *‘the principal function of IFI is the protection, management and conservation of the inland fisheries resource.’*

IFI recognises and acknowledges the broad principles and need (as outlined in Section 2.6) for the Renewable Electricity Policy and Development Framework primarily relating to the maximisation of the sustainable use of renewable electricity resources; the achievement of targets for renewable energy, enhancement of security of energy supply and the fostering economic growth and employment opportunities; provision for appropriate community engagement and the identification of a limited number of areas suitable for development of scale, having regard to the protection of natural and cultural heritage, landscape and amenity.

The EirGrid Implementation Plan should have regard to the need for the sustainable development of the inland and marine fisheries resource (including the conservation of fish and other species of fauna and flora, aquatic habitats and the biodiversity of inland and marine water ecosystems). Where potentially impacted, the key issues from a fisheries perspective for consideration in the SEA should include:

- water quality;
- surface water hydrology / hydromorphology;
- fish spawning and nursery areas (fisheries habitats);
- passage of migratory fish;
- ecosystem structure and functioning;
- sport and commercial fishing and angling; and
- amenity and recreational areas.

When developing the EirGrid Implementation Plan further, all measures necessary should be adopted and planned to ensure protection of local aquatic ecological integrity, in the first place by complete impact avoidance and only as a secondary approach through mitigation by reduction and remedy.

It is important to note that while many Irish surface waters are designated (SAC, SPA, NHA, Ramsar) under European and National legislation, a significant portion is located outside those areas subject to formal European or National designation. These waters may however hold species that are listed under the European Habitats Directive (e.g., salmon and lamprey species - sea, river and brook), or indeed other sensitive fish and other aquatic species that warrant careful protection.

A key publication for consideration when developing the EirGrid Implementation Plan includes the following:

- Guidelines on protection of fisheries during construction works in and adjacent to waters. These can be accessed at: <http://www.fisheriesireland.ie/fisheries-management-1/624-guidelines-on-protection-of-fisheries-during-construction-works-in-and-adjacent-to-waters>.

A copy of the submission IFI made to EirGrid in 2015, regarding the North South Interconnector was provided.



Comment/Issue Raised
<b>Eastern and Midland Regional Assembly (EMRA)</b>
<p>The EMRA is part of the regional tier of governance in Ireland. It is primarily focused on the formulation, adoption and implementation of Regional Spatial and Economic Strategies (which will replace the existing RSES), oversight and coordination of Local Economic and Community Plans (LECPs), management of EU Operational Programs, EU project participation, implementation of national economic policy, and additional functions through working with the new National Oversight and Audit Commission. These comments are issued as part of my role in the EAG and not as a submission from the Regional Assembly. The Assembly does not normally make submissions to SEA Scoping Reports; however, we do make submissions on regionally and national significant plans, strategies and projects and those plans and projects that are listed in the current RSES. In this regard the Assembly will make comments at the formal stage of consultation on the EirGrid Draft Grid IP.</p>
<p>With regard to the SEA Scoping Report as issued, it appears to be a comprehensive scoping document that addresses the requirements of the EU Directive on the Assessment of Effects of Certain Plans and Programmes on the Environment (SEA Directive).</p>
<p>The proposed consultation and stakeholder engagement is useful, and it is recognized that transboundary consultation with other member states should occur. Furthermore, the attempt to engage with wider environmental organizations and other stakeholders who may have interest in the project is welcomed.</p>
<p>The Geographical scale of the Implementation Plan should attempt to reflect the new regional boundaries as defined in the Local Government Act 1991 (Regional Assemblies) (Establishment) Order 2014 (S.I. 573 of 2014) which came into effect on the 1st January 2015 establishing the new Regional Assemblies; the Northern and Western, the Eastern and Midland, and the Southern. This establishment also defined sub regional areas - Strategic Planning Areas which could be reflected in the SEA study Areas.</p>
<p>With regard to planning policy documents it is considered that the RSES should be a consideration, a set of seven RSES (RPGs) were adopted by the eight former Regional Authorities in 2010 to provide a framework for long term strategic development of the region for the period of 2010-2022, which is consistent with the National Spatial Strategy 2002-2020 (NSS) and which ensures the successful implementation of the NSS at regional, county and local level. These planning documents will be replaced by Regional Spatial and Economic Strategies which will be prepared by the Regional Assemblies and will be informed by the upcoming National Planning Framework (the successor to the National Spatial Strategy).</p>
<b>Natural Resources Wales</b>
<p>NRW welcomes and supports the strategic approach to the assessment of grid infrastructure implementation that the EIRDRAFT GRID IP 2017-2022 SEA aims to achieve. We consider that a robust strategic assessment of environmental issues associated with the Draft Grid IP will help to reduce risks to the environment and minimise the consenting risks and uncertainties for project promoters by identifying environmental baselines, key constraints, sensitive receptors, potential impacts, alternatives and mitigation approaches.</p>
<p>It is not clear from the scoping report what the 2017-2022 Plan intends as regards the EirGrid east-west interconnector to Wales, although as this connection is already built, we have assumed that little in the way of change is planned. We would be grateful if this point could be confirmed. If that is the case, further consideration of the effects in Wales will not be required. However, if any changes to this interconnection are planned then consideration will need to be given to the potential effects on Welsh waters and any land-based infrastructure in Wales. Any changes to parts of the grid that will mean that changes to the cabling and connection points in Wales are required will need to be assessed in the light of any potential sensitivity in Wales and designed so as to minimise or avoid significant impacts.</p>
<b>Department for Communities (NI)</b>
<p>The scope of the planned work is exclusively outside Northern Ireland.</p>



Comment/Issue Raised
<p>Historic Environment Division would recommend that our digital datasets might be utilized to assess impacts where proposed works have potential for physical or visual impacts on historic environment assets adjacent to the border area.</p>
<p>Many historic sites such as the Black Pigs Dyke and the Ulster Canal extend both sides of the border and it would be appropriate to retain cognizance of these assets and their historic significance.</p>
<p>You can download spatial datasets that we hold on the historic environment at: <a href="https://www.communities-ni.gov.uk/publications/historic-environment-digital-datasets">https://www.communities-ni.gov.uk/publications/historic-environment-digital-datasets</a>.</p>
<p><b>Department of Agriculture, Environment and Rural Affairs (Northern Ireland) (DAERA)</b></p>
<p><b>General SEA Comments</b></p>
<p>We would like the Draft SEA ER to contain a clear statement indicating the opinion (and the reasons for it), about whether or not the implementation of the Draft Grid IP, in combination with any identified measures envisaged to prevent, reduce and as fully as possible offset any significant adverse effects on the environment, is likely to have a significant effect on Northern Ireland.</p>
<p>DAERA have no issues or concerns with the SEA scoping report at this stage, but this project may pose concerns in the future as we have a number of licensed aquaculture sites all over Northern Ireland. Our concerns would be in relation to where power line base structures / stations may be placed and if they could have a negative impact on aquaculture sites. We would like to remind the applicant that it is an offence under Article 47 of the Fisheries Act (NI) 1966 to cause pollution which is subsequently shown to have a deleterious effect on fish stocks.</p>
<p><b>Specific comments</b></p>
<p>In terms of air pollution – could the SEA perhaps examine the impact on air quality in terms of renewable electricity (e.g., wind) transmission infrastructure, given the large difference in air pollutant emissions between renewables and fossil fuel-derived energy?</p>
<p>Biodiversity, Flora and Fauna baseline information</p> <ul style="list-style-type: none"> <li>• NIEA Natural Heritage Digital datasets: <a href="https://www.daera-ni.gov.uk/articles/download-digital-datasets">https://www.daera-ni.gov.uk/articles/download-digital-datasets</a></li> <li>• Northern Ireland State of the Environment Report 2013: <a href="https://www.daera-ni.gov.uk/publications/state-environment-report-2013">https://www.daera-ni.gov.uk/publications/state-environment-report-2013</a></li> <li>• Northern Ireland Environmental Statistics Report 2016: <a href="https://www.daera-ni.gov.uk/publications/northern-ireland-environmental-statistics-report-2016">https://www.daera-ni.gov.uk/publications/northern-ireland-environmental-statistics-report-2016</a></li> </ul>
<p>Table 5.1</p> <ul style="list-style-type: none"> <li>• Key PPP sources relevant for Biodiversity, Flora and Fauna should include Biodiversity Strategy for Northern Ireland to 2020.</li> <li>• <a href="https://www.daera-ni.gov.uk/publications/biodiversity-strategy-northern-ireland-2020-0">https://www.daera-ni.gov.uk/publications/biodiversity-strategy-northern-ireland-2020-0</a>.</li> <li>• Key PPP sources relevant for Landscape and Visual Amenity should include NI Landscape Character Assessment.</li> <li>• <a href="https://www.daera-ni.gov.uk/articles/landscape-character-northern-ireland">https://www.daera-ni.gov.uk/articles/landscape-character-northern-ireland</a>.</li> <li>• NI Regional Landscape Character Assessment: <a href="https://www.daera-ni.gov.uk/services/regional-landscape-character-areas-map-viewer">https://www.daera-ni.gov.uk/services/regional-landscape-character-areas-map-viewer</a></li> </ul>





**Comment/Issue Raised**

Table 4.1

Draft Strategic Environmental Objectives Biodiversity, Flora and Fauna, in draft objective B2 may want to include the additional wording “including those outside of designated sites” in relation to protected habitats, species and environmental features.

**Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs**

**Archaeology:**

1. The importance of having a Project Archaeologist is recognised in the report and is accepted as an essential ingredient of the Draft Grid IP.

2. In the Cultural Heritage section of the report, Archaeology & Architecture is scoped “In” in the Summary of Environmental Issues (P.63). Both direct and indirect potential impacts are mentioned: “grid development options can be constrained by the need to protect the character of areas of existing archaeological and architectural resources”.

The report also identifies as SEA objective CH1: To Avoid impacts upon archaeological heritage (including entries to the Record of Monuments and Places) (P.65). It is recommended that **Section 6.5** of the report should be changed where it outlines the potential inter-relationships in between different environmental topics. Table 6.3 illustrates the relationships that are considered. Archaeology and Cultural Heritage has more inter-relationships with other areas of environmental concern than those that have been identified in this section of the report:

- There is a relationship of archaeology with Biodiversity (Flora & Fauna) a clear example of this is on Skellig Michael World Heritage Site (important both for birds and for Built Heritage).
- Land Use – clearly land use can have a profound impact on archaeological sites/landscapes.
- Climate change – this has also had a dramatic impact on some archaeological sites (think of Omev Island storms).
- Water – this is the environment for underwater and riverine/lacustrine archaeological sites and should not be neglected.

**Nature Conservation - General**

This submission is made in the context of this Department’s role in relation to nature conservation, including as an environmental authority under SEA legislation.

The observations below are offered to assist EirGrid in meeting the obligations that arise in relation to European sites, other nature conservation sites, natural habitats and protected species, and biodiversity.

The opportunity has also been taken to make observations in relation to the appropriate assessment process, including the preparation of an NIS, in the event that screening for appropriate assessment finds that these are necessary.

While not specifically stated, it is assumed that the screening and assessment processes will be carried out under Part 5, Regulation 42 of the European Communities (Birds and Natural Habitats) Regulations, 2011 (hereafter the ‘2011 Regulations’) as the plan is not a ‘land use plan’ for the purposes of Part XAB of the Planning and Development Act, 2000 as amended & Planning and Development (Amendment) Act 2021. The record-keeping obligations of a public authority, as set out in Regulation 61 of the 2011 Regulations, should also be noted.



## Comment/Issue Raised

### SEA – Biodiversity, flora and fauna

SEA must assess the likely significant effects on biodiversity, flora and fauna.

Biodiversity is generally defined as the variety of life on earth. An outline of key elements of biodiversity of potential relevance to the plan and plan area is given in Appendix 1.

There are inter-relationships between biodiversity, flora and fauna and most other environmental issues or topics, including population, human health, water, soil, air, climatic factors, landscape, and possibly architectural and archaeological heritage, and the potentially significant effects of the Draft Grid IP on these interdependencies should be explored and assessed in the SEA.

There will be overlaps and linkages between biodiversity, flora and fauna in the SEA, and sites, habitats and species of relevance to appropriate assessment and Articles 6(3) and 6(4) of the Habitats Directive. The SEA should address all such issues in general, as well as any other relevant provisions of the Habitats Directive. A plan should be developed to integrate biodiversity considerations in a positive, proactive and precautionary way, and this should be reflected in the text and content of the Draft Grid IP, including its aims, objectives and policies, as well as in any maps. The findings of the SEA should be assimilated into and modify the content of the Draft Grid IP.

The biodiversity, flora and fauna section of the environmental report should be prepared by or in conjunction with a suitably qualified ecologist(s), and other specialists as necessary, and in conjunction with the NIS to ensure full integration of biodiversity issues and concerns.

The EPA's Integrated Biodiversity Impact Assessment best practice guidance is of relevance in this regard.

### Strategic Environmental Objectives (SEOs)

The (draft) Strategic Environmental Objectives (SEOs) in Table 4.1 of the SEA scoping report are noted. In the case of Biodiversity, Flora and Fauna, the SEOs require review and revision to widen their scope and application to include, for example, the following:

- SEO B1 – to ensure compliance with the Habitats and Birds Directives, and associated legislation, with regard to the conservation and protection of European sites, and the implementation of Article 10 (of the Habitats Directive).
- SEO B2 – to avoid significant impacts on other nature conservation sites (including NHAs and pNHAs), Nature Reserves and Refuges for Fauna or Flora, designated under the Wildlife Acts 1976 to 2012, natural habitats, protected species, and environmental features or other sustaining resources.
- Species protected under the Wildlife Acts include protected flora.
- 'Protected species and natural habitats', as defined in the Environmental Liability Directive (2004/35/EC) and European Communities (Environmental Liability) Regulations, 2008, including Birds Directive – Annex I species and other regularly occurring migratory species, and their habitats (wherever they occur) and Habitats Directive – Annex I habitats, Annex II species and their habitats, and Annex IV species and their breeding sites and resting places (wherever they occur).
- Important bird areas such as those identified by Birdlife International.
- Features of the landscape which are of major importance for wild flora and fauna, such as those with a "steppingstone" and ecological corridors function, as referenced in Article 10 of the Habitats Directive.
- Other habitats of ecological value in a national to local context (such as those identified as locally important biodiversity areas within Local Biodiversity Action Plans and County Development Plans).
- Red data book species and biodiversity in general.



**Comment/Issue Raised**

**SEA monitoring**

The monitoring programme should be clearly set out and developed in such a manner as to ensure it will identify the effects on the environment that are likely to arise, or will arise, and to monitor the effectiveness of any mitigation on which the assessment relies.

It is important to understand the objectives, methodologies, parameters, assumptions, etc. of any existing monitoring programme that is proposed to be used in such a way.

**Available guidance**

Existing EU and Irish guidance on SEA and appropriate assessment (see AppendixB2) should be followed. There should be due regard to the terminology, stages and tests of the assessment processes as set out in relevant legislation, notably in the case of the appropriate assessment process. Where legislation updates or amends elements of existing guidance, the former should be used or applied in preference in all cases.

**Available ecological information**

The National Parks and Wildlife Service website ([www.npws.ie](http://www.npws.ie)) is a key source of data/information etc. This includes site boundaries, site synopses, lists of qualifying interests (SACs) and special conservation interests (SPAs), conservation objectives (European sites), features of interest (NHAs), and dates of site designation. GIS datasets are available for download for nature conservation sites, and for certain habitats and species arising from various sources, including national surveys.

GIS: <http://www.npws.ie/mapsanddata/habitatspeciesdata/> <http://www.npws.ie/article-17-reports-0>  
<http://www.npws.ie/news/birds-directive-article-12-reporting>:

Data on ecological features and environmental factors in or near the project area will be available from various other sources including, for example:

- Other organisations, e.g., National Biodiversity Data Centre, BirdWatch Ireland, Bat Conservation Ireland, etc.
- Draft SEA ERs, NIRs/NISs and other reports for other plans, including national plans and the previous Draft Grid IP.

**Appropriate Assessment**

**Comment/Issue Raised**

General notes on screening for appropriate assessment and the preparation of an NIS are included in Appendices 3 and 4, respectively, and should be taken into account where relevant.

As outlined above, there should be due regard to the terminology, stages and tests of the appropriate assessment process as set out in relevant legislation, i.e., Regulation 42 of the 2011 Regulations.

The terminology in Section 2.2.3 of the SEA scoping report should be reviewed in line with the applicable legislation noting that, if an appropriate assessment is required, an NIS (not an NIR) would be prepared.

Screening for appropriate assessment is carried out must be carried out to assess, in view of best scientific knowledge and in view of the conservation objectives of the relevant European site(s), if the draft GridIP, on its own or in combination with other plans or projects is likely to have a significant effect on the European site(s).

Under the 2011 Regulations, it must be determined that an appropriate assessment is required if it cannot be excluded on the basis of objective scientific information, following screening, that the project, alone or in combination with other plans or projects will have a significant effect on the European site(s). The precautionary principle should be applied in reaching such determinations.

The potential in combination effects of the following will need to be taken into account when carrying out



### Comment/Issue Raised

screening for appropriate assessment and when preparing the NIS and carrying out the appropriate assessment, if required, for the Draft Grid IP:

GRID25

‘Your Grid, Your Tomorrow: Ireland’s Grid Development Strategy’.

Transmission Development Plans (TDPs).

Transmission projects.

Other plans – existing and planned land use zonings or categorisations for new or expanded onshore and offshore energy development, particularly renewable energy development, in plans, including land use plans, are a particular issue of concern in relation to in combination effects.

Other projects – existing, permitted and planned onshore and offshore energy developments, particularly renewable energy developments, are a particular issue of concern in relation to in combination effects.

When an appropriate assessment is carried out by a public authority (or competent authority under planning legislation), it is required to take account of the (final) NIS and should also address the content of submissions made where issues or concerns are raised regarding the likely effects on European sites.

Case law of the Court of Justice of the European Union (e.g., case C-258/11) has established that an appropriate assessment cannot have lacunae, and must contain complete, precise and definitive findings and conclusions with regard to the implications of a project for the conservation objectives and integrity of a European site or sites.

The decision-making authority has obligations to address scientific uncertainties or discrepancies, including matters raised by other parties, particularly in relation to the implications for European sites and their conservation objectives in the appropriate assessment (e.g. judgment of Justice Barton (Irish High Court, January 2016) in the case of Balz and others versus An Bord Pleanála); the final determinations should demonstrate how the differing scientific opinions were resolved, noting the standards of the appropriate assessment as outlined above.

General duties of a public authority

Your attention is drawn to Regulation 27 of the 2011 Regulations as this places particular duties on all public authorities in relation to European sites.

Among other things, this includes a duty to exercise all functions, including but not only consent functions, in compliance with, and so as to secure compliance with the requirements of the Habitats and Birds Directives and the 2011 Regulations.

Public authorities are obliged, when exercising their functions, to take appropriate steps to avoid in European sites the deterioration of natural habitats and the habitats of species, as well as disturbance of species.

All public authorities are advised to incorporate such obligations into their plans and programmes, and associated assessments, as required and relevant. This could usefully include the development of systems that will monitor and ensure the compliance of “downstream” projects with these obligations, as well as any internal mechanisms that may be needed to ensure compliance.



## Comment/Issue Raised

### **Appendix 1**

Key elements of biodiversity, flora and fauna of relevance to SEA

### **Appendix 2**

Available guidance on Article 6 of the Habitats Directive and appropriate assessment

### **Appendix 3**

Notes on screening for appropriate assessment

### **Appendix 4**

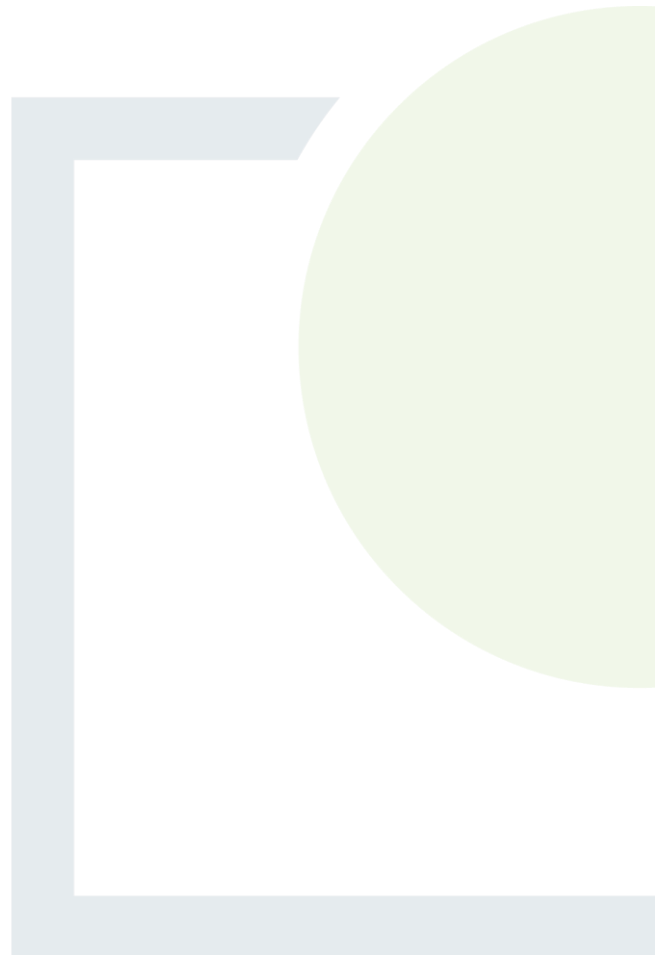
Notes on the preparation and content of an NIS



**FEHILY  
TIMONEY**

**CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE  
& PLANNING**

# **APPENDIX D**





Aspect	Data	Source	Format
<b>Population, Human Health and the Economy</b>	Population Data, Distribution, Trends	Central Statistics Office (CSO)	Digital
		Evidence Based Environmental Studies. Study 9: Settlement and Land Use	Digital
		Northern Ireland Statistics and Research Agency (NISRA)	Digital
	Health	CSO	Digital
		WHO	Digital
	Medical Cover	CSO	Digital
	Life Expectancy	Department of Health	Digital
	Major Settlements	Ordnance Survey of Ireland (OSI)	Digital (GIS)
	Electromagnetic Fields (EMF)	Evidence Based Environmental Studies. Study 1: EMF	Digital
	Employment Rates	CSO	Digital
Capital Investment	Capital Investment Plan (CIP) 2016 – 2021	Digital	
<b>Biodiversity, Flora and Fauna</b>	SAC's and SPA's	NPWS	Digital (GIS)
	NHA's and pNHA's	NPWS	Digital
	RAMSAR	RAMSAR Ireland website	Digital
	UNESCO	UNESCO website	Digital
	Other nature conservation sites e.g., Salmonid Waters, Freshwater Pearl Mussel Catchments and Nature Reserves	NPWS	Digital
		County Development Plans	Digital
	Bird species including breeding, passage and wintering birds	BirdWatch Ireland	Digital
		Royal Society for the Protection of Birds (RSPB)	Digital
		Evidence Based Environmental Studies. Study 5: Birds	Digital
	Invasive species	Invasive Species Ireland	Digital
		Biological Data Centre National Invasive Species Database	Digital
	Overview of: - Bats; - Habitats; and - Water Quality and Aquatic Ecology	Evidence Based Environmental Studies. Study 3: Bats; Evidence Based Environmental Studies. Study 4: Habitats; and Evidence Based Environmental Studies. Study 6: Water Quality & Aquatic Ecology	Digital
	Transmission Lines within SAC's and SPA's (110kV, 220kV and 400kV)	EirGrid	Digital Digital (GIS)



Aspect	Data	Source	Format
<b>Landscape and Visual Amenity</b>	Landscape Character Areas (LCA's)	County Landscape Assessments	Digital
		County Development Plans	Digital
	National Sensitivity Mapping	EirGrid Environmental Sensitivity Mapping	Digital (GIS)
	Overview of: - Landscape & Visual Amenity	Evidence Based Environmental Studies. Study 10: Landscape and Visual	Digital
	Landscape Strategy	National Landscape Strategy (NLS) 2015 - 2025	Digital
<b>Cultural Heritage – Archaeological and Architectural</b>	Record of Monuments and Places (RMP)	Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHRRG)	Digital (GIS)
		National Monuments Service	Digital
	Record of Protected Structures (RPS's)	Heritage Council	Digital
		County Development Plans	Digital
	Architectural Conservation Areas (ACA's)	County Development Plans	Digital
		Local Area Plans	Digital
	National Inventory of Architectural Heritage (NIAH)	Department of Arts, Heritage, Regional, Rural and Gaeltacht Affairs (DAHRRG)	Digital
	UNESCO sites	UNESCO website	Digital
Overview of: - Cultural Heritage Guidelines for Electricity Transmission Projects	Evidence Based Environmental Studies. Study 2: Cultural Heritage	Digital	
<b>Geology and Soils</b>	Soils and subsoils	Teagasc	Digital
		EPA National Soil Database	Digital
	Geology of Ireland	GSI	Digital (GIS)
	Overview of: - Soils and Geology	Evidence Based Environmental Studies. Study 7: Soils and Geology	Digital
<b>Land Use</b>	Land Cover and Land Use	CORINE Land Cover Inventory	Digital (GIS)
		EPA	Digital (GIS)
	Agricultural Land	CSO	Digital
		Department of Agriculture, Food and the Marine (DAFM)	Digital
	Forestry	EPA	Digital
		Forest Inventory Planning System (FIPS)	Digital (GIS)
	Peatland	Bord na Móna website	Digital





Aspect	Data	Source	Format
	Overview of: - Settlement and Land Use	Evidence Based Environmental Studies. Study 9: Settlement & Land Use	Digital
Air Quality and Noise	Air Quality	EPA	Digital
	Air Quality Zones	EPA	Digital
	Noise	WHO	Digital
		Evidence Based Environmental Studies. Study 8: Noise	Digital
Water	Overview of: - Water Quality and Aquatic Ecology	Evidence Based Environmental Studies. Study 6: Water Quality and Aquatic Ecology	Digital
	WFD Waterbody Status	EPA – WFD Data	Digital
	Water Monitoring Sites	EPA – WFD Data	Digital
	River Basin Management Plans	WFD – RBMP and Map Data	Digital Digital (GIS)
	Flood Risk Management Plans (FRMPs)	OPW	Digital/ Hard copy
	Preliminary Flood Risk Assessment Mapping	OPW	Digital (GIS)
Material Assets and Infrastructure	Road Network	Transport Infrastructure Ireland (TII)	Digital
	Rail Network	Iarnród Éireann	Digital
	Canal Network	Waterways Ireland	Digital
	Port Traffic	CSO	Digital
	Energy Requirements	SEAI	Digital
	Power Generation Stations	ESB – Map Data	Digital
	Transmission Network	ESB	Digital
		EirGrid	Digital (GIS)
	Water-infrastructure management	Irish Water	Digital
	Wind Energy	County Wind Energy Strategies	Digital
		Irish Wind Energy Association (IWEA)	Digital
	Renewable Energy	County Renewable Energy Strategies	Digital
		Department of Energy, Communications and Natural Resources (DECNR) Offshore Renewable Energy Development Plan	Digital
SEAI Strategic Plans		Digital	
Tourism and Recreation	Dublin Airport Passenger Statistics	CSO	Digital
	Port Traffic Statistics	CSO	Digital



Aspect	Data	Source	Format
	Irish Touring Routes/ Areas	Fáilte Ireland	Digital
		Department of Transport, Tourism and Sport	Digital
	National Trails	National Trails Register	Digital
	Future Development	County Development Plans	Digital
		DAA	Digital
		Dublin Port Masterplan	Digital
Climate Change	GHG emissions	EPA - Data	Digital
	Flood Risk	OPW - Flood Risk Management studies	Digital/Hard copy
	Renewable/ Sustainable Energy	SEAI	Digital
		Department of Communications, Climate Action and Environment	Digital
Transboundary Effects	Electricity Transmission	SONI (NI)	Digital
		RTE (France)	Digital
		National Grid (UK)	Digital
	Environment	Northern Ireland Environment Agency	Digital
		Ministry of the Environment, France (ministère de l'Environnement, de l'Energie et de la Mer)	Digital
		Joint Nature Conservation Committee (JNCC)	Digital
		Department for Natural Resources (Wales)	Digital
	Geology	Geological Survey of Northern Ireland (GSNI)	Digital (GIS)

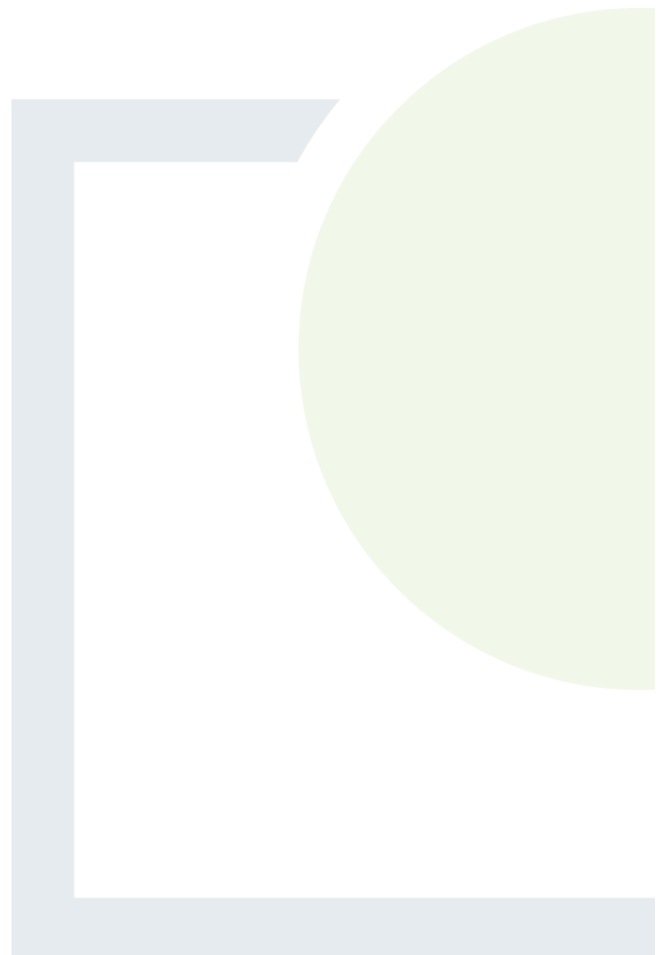


**FEHILY  
TIMONEY**

**CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE  
& PLANNING**

## **APPENDIX E**

Summary of EirGrid  
Evidence Based  
Environmental Studies  
(EBES)





## Summary of EirGrid Evidence Based Environmental Studies (EBES)

This section summarises the EBES which have informed the development of the EirGrid guidance documents which are being utilised in the development of current and future EirGrid development projects. The EBES have direct and indirect relevance to the baseline aspects detailed in **Section 1.6** above and have supported consideration of likely significant effects on the environment of the Draft Grid IP.



## EBES in relation to Baseline Aspect

Aspect	EBES									
	EBES 1 - EMF	EBES 2 - Cultural Heritage	EBES 3 - Bats	EBES 4 - Habitats	EBES 5 - Birds	EBES 6 - Water Quality & Aquatic Ecology	EBES 7 - Soil and	EBES 8 - Noise	EBES 9 - Settlement & Land Use	EBES 10 - Landscape & Visual
Population, Human Health and the Economy	√√	√		√		√	√	√	√√	√
Biodiversity, Flora and Fauna			√√	√√	√√	√√				√
Landscape, Seascape and Visual Amenity		√		√					√	√√
Cultural Heritage		√√								√
Geology and Soils							√√		√	
Air Quality and Noise								√√		
Water				√		√√				√
Materials Assets and Infrastructure									√√	
Tourism and Recreation		√		√					√	√
Climate Change										

√√ - EBES has direct relevance

√ - EBES has indirect relevance

### Evidence Based Environmental Study 1: Electromagnetic Fields (EMF)

This study addressed and reviewed the potential human health impacts of EMFs.

The most recent published electric field and magnetic field reference levels as recommended by the International Commission on Non-Ionizing Radiation Protection<sup>1</sup> (ICNIRP, 2010) are 200 µT for magnetic and 5 kV m<sup>-1</sup> and electric field strength.



Responsibility for managing potential health impacts of EMF in Ireland lies with the Department of Housing, Planning, Community and Local Government and the Environmental Protection Agency (this function was formally with the Radiological Protection Institute of Ireland (RPII) which merged with the EPA in 2014). In statements regarding EMF and health, the department refers to compliance with ICNIRP guideline exposure limits, although there is no specific transposition of the EC Recommendation (1999/519/EC) for adoption of 1998 ICNIRP guidelines into Irish Government policy.

The aim of this study was to compile a robust evidence base from high-voltage transmission in Ireland to scientific knowledge relating to potential health impacts. The EMF surrounding overhead lines (OHL) (110kV, 220kV and 400kV) was measured at distances between 0-100m and Under Ground Cables (UGC) (110kV and 220kV) at distances between 0-12m and 0-50m respectively. The EMF emitted from substations was also measured at distances between 0-50m.

Magnetic field strength depends directly on the load (amount of power) carried by the different transmission infrastructure types, and so it is necessary not only for such an assessment to take account of measurements taken under typical operating conditions, but also for measurements and analysis to consider (real-world) high-load conditions i.e., during periods when the load on the transmission grid is greater than average.

The maximum magnetic field strengths measured at all OHLs, UGCs and substation perimeters surveyed were below the ICNIRP reference levels for EMF. The maximum electric field strengths measured at all OHLs and substation perimeters surveyed were also below the ICNIRP reference level. UGCs produce no electric field above ground. Under the EC recommendation (1999/519/EC), these public exposure guidelines are applicable primarily to long-term, residential exposure. The maximum electric field strength measured from the highest-voltage overhead line (400 kV) is relatively close to the ICNIRP reference level for electric fields.

A key subject that has emerged in recent years regarding EMF and existing or proposed high-voltage electricity transmission infrastructure is that it is essential to address public perceptions of the health risk, in addition to managing the actual risk. Perceived risk and anxiety regarding health (or other effects) can itself induce stress that can lead to adverse health outcomes. Remaining within the guideline reference level is considered appropriate to protect health. However, health protection bodies suggest that public perception of risk can be addressed through the application of a precautionary approach in which unnecessary magnetic field exposure is further reduced, based on health impacts research literature in this field. Although remaining within the guideline reference level is considered appropriate to protect health. EirGrid typically aim, on the grounds of residential amenity and visual impact, to site new high-voltage transmission infrastructure away from populated areas and to maintain at least a 50m distance from individual dwellings, where possible. This existing approach offers a further reduction in magnetic field exposure, as the field strength decreases rapidly with distance from the power line.

### **Evidence Based Environmental Study 2: Cultural Heritage**

This study examined the actual effects of the construction, presence and operation of high voltage transmission projects on Ireland's cultural heritage. The study reviewed available monitoring and excavation reports undertaken for transmission projects over the last 40 years and found limited issues in terms of negative effects on cultural heritage resources.

This study determined that individual designated monuments, protected structures, NIAH structures and gardens tend to be limited in physical extent, and are therefore, not difficult to avoid and were generally successfully avoided for previous infrastructure projects. Significant but undesignated archaeological sites, buildings and designed landscapes also generally tend to be limited in extent and can most often be avoided.



In order to facilitate early identification and avoidance of cultural heritage sites, early stakeholder engagement, the completion of robust constraints and route selection studies and EIS reports and field survey/investigative work is important.

The study identified that good practice for the construction of transmission projects depends on:

- early and appropriate consultation and correspondence with relevant authorities and stakeholders;
- robust cultural heritage reporting throughout the planning stages;
- community involvement in the identification and reporting of non-designated assets from an early stage;
- consideration for the interaction between cultural heritage and landscape and visual impacts;
- full consideration of possible routing or technology options, informed by archaeological assessment/architectural heritage surveys; and
- appropriate mitigation.

### **Evidence Based Environmental Study 3: Bats**

Study 3 examined the effects of the construction and operation of high voltage electricity transmission projects on bat activity in Ireland.

The study demonstrated that the presence of high voltage power lines does not act as a deterrent to bats. There is also no evidence in literature to suggest that EMF generated by overhead lines (OHLs) disrupts bat magnetoreception. Evidence of bat activity was recorded at all OHL sites sampled. Bat activity was recorded at all distances from 0-500m from the OHLs. Therefore, distance from the OHL did not have a significant effect on the occurrence of bats.

The primary issue identified was not the physical presence of transmission network infrastructure and EMF but the potential for the removal of habitats and the fragmentation and disturbance associated with the construction or operation of transmission lines. The presence or absence of suitable commuting and/or foraging habitat is the strongest determinant for bat activity, around and adjacent to OHLs. This study recommended that:

- Given the relatively small foundation footprint of towers, the length/volume of woody vegetation clearance should be minimised where possible.
- Where complete clearance of vegetation and significant disturbance is required, hedgerows should be replanted around the towers or at other suitable locations nearby in order to retain the integrity of the impacted hedgerow.

This study affirmed that it is important to utilise best practice and habitat/species sensitive construction methodologies for new transmission line projects and to retain existing high quality linear features, where possible. In instances where construction necessitates removal, re-instatement of linear features should be prioritised to offset any potential adverse effects.

### **Evidence Based Environmental Study 4: Habitats**



This study examined the impacts of high voltage transmission infrastructure on natural and semi natural habitats in Ireland and provided a factual basis for the updating of the *Ecology guidelines for transmissions projects in Ireland* (in prep). The field study focused on peatland habitats and semi-natural grassland habitat.

The field study and review of literature found that construction and maintenance of electricity transmission infrastructure can affect habitats in a number of ways, including habitat loss, habitat change, fragmentation and hydrological change. The implementation of certain measures during route planning, construction and maintenance will allow for significant impacts to be avoided or reduced on sensitive habitats. Peatlands were determined to be the most sensitive habitats to impacts due to construction works and grassland habitats were determined to recover rapidly following construction related disturbance.

The study showed that in peatland habitats, local plant composition and richness can vary between the area adjacent to transmission infrastructure and control sites. However, changes in overall habitat classification were not identified. At the sites examined peatland species displayed some differences in composition related to distance from transmission infrastructure. The abundance of Sphagnum spp, cottongrass, deergrass and lichen decreased close to the structures (where the most disturbance would have occurred during construction) whereas species including sedges, purple moor-grass and rush increased closer to the structures. There was no statistically significant difference determined for grassland habitats.

#### **Evidence Based Environmental Study 5: Birds**

Study 5 examined the effects of existing high voltage transmission infrastructure on bird activity in Ireland and provides for the development of bird-specific recommendations for updating of the *Ecology guidelines for transmission projects in Ireland* (in prep).

Risks identified for birds include mortality through collision, and disturbance due to construction. The study recognised that collisions with the earth wire at the top of powerlines are widely reported as the main cause of bird collisions. The challenges associated with determining collision rates are outlined in terms of the bias of observer detection and scavenging and crippling bias. The risk of bird collision is dependent on many factors including the size of birds, species, behaviour and the local environment/conditions. Pylon height, in terms of the height of the earth wire, is also considered to influence the flight height of crossing birds.

The study examined five high risk sites for birds, and 54 low risk or control sites on the existing transmission system. Searches for dead birds were carried out at all sites. A further detailed and targeted survey was also carried out at three high risk sites, for target species including swans, geese, ducks, gulls, herons, raptors, waders and cormorant. Results from these field surveys suggested broadly similar collision rates of birds as published in scientific literature. However, the study noted that caution must be applied due to the sensitivity of estimates to the number of bird remains found.

The study confirmed that measures to reduce bird collisions include line route assessment in the first instance and line marking to increase visibility to birds where risks remain after routing.

#### **Evidence Based Environmental Study 6: Water Quality & Aquatic Ecology**

This study examined the potential impacts of electricity transmission infrastructure on water quality and protected aquatic species.





The study assessed the impacts of the construction, maintenance and operation of OHLs, UGCs, substations and associated infrastructure. Potential impacts are usually associated with works taking place near drains, streams, rivers and lakes and the majority of potential impacts were found to be associated with the construction phase. The study outlined that the most significant risk to water quality and aquatic ecology is the release of sediments, particularly following land clearance for construction. This can result in increased erosion and surface run-off. Additional pollutants can come from concrete/cement and hydrocarbons which are materials used in tower foundations and culverts.

Field based studies involved the collection of biological, physical and chemical samples from watercourses, both upstream and downstream of construction points. Results of the study varied with higher sediment, oxygen and nutrient values being detected downstream on some sites and upstream on others. Likewise, a number of sites showed no change before or after construction, while others displayed higher sediment and nutrient readings post-construction. Therefore, no consistent change to downstream suspended sediment level was found. The study further found that the cause of increased levels varied between sites, with sources including construction works taking place near watercourses with limited/no buffer zone, site clearance, damage/alteration to riverbanks/riparian zones, or site flooding.

The results of the field studies emphasised that other land uses and pressures including forestry, natural bank erosion, agricultural drainage and animal poaching can affect water quality. It is therefore important to consider these pressures when assessing in-combination effects at project level. The study found that the implementation of mitigation measures such as silt barriers and buffer zones are essential for reducing the risk of sediments and contaminants entering watercourses. Full restoration of any physical changes to riverbanks was recommended to avoid long-term impacts due to erosion and the release of sediments.

### **Evidence Based Environmental Study 7: Soils & Geology**

Study 7 examined the actual effects of high voltage transmission infrastructure on soils and geology at a number of sites.

Impacts were considered to be mainly associated with the construction phase. The main negative impact was determined to be soil movement which could lead to sedimentation and siltation, which can affect watercourses. Additional potential impacts identified in the study included the contamination of soils or geological features by cement or fuel/oil spills during construction. Soil compaction and ground disruption can also occur but are considered to be temporary.

The study compiled details of previous site assessments on a number of transmission line projects and evaluated the impacts and mitigation at pre, during, and post-construction stages. Field surveys were completed for five site categories, covering standard, non-standard and worst-case conditions and for a range of different soil types. Minor, localised impacts were evident in some sites during construction. However, no significant impacts on soils or geology were found during site visits, and this can be attributed to the careful planning and avoidance of sensitive areas.

The study indicated that the implementation of adequate mitigation measures should ensure that no long-term impacts occur. This includes implementing a 50m buffer between a watercourse and structures and the avoidance of soft/fine soils, where possible. In the event that a natural buffer is not suitable, or routes through soft/fine soils cannot be avoided, construction measures such as silt curtains were recommended.

The study found that effective route planning can protect the environment as more sensitive and weaker areas of ground can be identified and avoided.



## Evidence Based Environmental Study 8: Noise

This study assessed the actual noise effects of construction and the presence of high voltage transmission infrastructure (OHLs and substations) in Ireland. UGCs were excluded from the study as they do not create any significant noise.

The types of audible noise associated with electricity infrastructure are:

- corona noise (crackling/hissing sound) emanating from high voltage transmission lines when the voltage gradient exceeds a certain critical value;
- noise resulting from dirty damaged or cracked insulators and substation equipment; and
- aeolian noise resulting from wind blowing through electricity infrastructure.

Noise surveys were carried out at locations along 110kV, 220kV and 400kV OHLs and substations. Surveys were undertaken when the line was in operation (on) and switched out (off) in order to compare noise levels for these two survey types.

Corona noise can become a significant issue from 300-500kV and above, and therefore significant noise impacts are not likely for 110kV and 220kV transmission lines. Evidence provided from the study of 400kV lines determined that these lines produce significant corona noise effects under certain conditions (i.e., at night or under humid and wet weather conditions). Steady-state noise levels were recorded in the vicinity of substation boundaries for all voltages.

Planning for 110kV and 220kV lines should not be significantly constrained based on potential noise issues. The study recommended a distance of 200m and 100m between any property and 400kV towers and OHL, respectively. It also recommended that a minimum distance of 5m, 20m and 150m is maintained between the land boundary of any sensitive receptor and a 110kV, 220kV and 400kV substation, respectively.

## Evidence Based Environmental Study 9: Settlement & Land Use

Study 9 examined the actual effect of construction and the presence of high voltage transmission infrastructure on patterns of settlement and land use in Ireland.

The existing network generally avoids urban areas and aims to avoid areas of environmental significance. However, the network interacts with urban outskirts and passes through agricultural and rural areas. There is an absence of recorded significant impacts on settlement patterns and land use, and this is attributed to the large amount of published information regarding best practice route design and site design guidelines which account for a variety of conditions and environments.

The study examined 31 cases including 17 existing OHL circuits, ten substations and four sites under construction. These sites were located in urban, urban/rural and rural areas. Coexistence of buildings and transmission infrastructure, development density, planning policy and planning application were also considered. Low levels of coexistence were observed in rural areas. Coexistence increased in urban/rural and urban areas. However, coexistence within 0-30m of OHLs is minimal due to health and safety regulations. The study found that there was no significant variation in development density with distance from transmission infrastructure and current plans and policies tend to integrate the grid and renewables into their decision-making process.



The study identified no evidence to suggest that the construction or existence of transmission infrastructure causes significant impacts on settlement and land use. Impacts tend to be localised, occurring within the vicinity of towers and circuits. In built-up areas, issues are mainly linked to restrictions on future land use. Planning policy in respect to this type of infrastructure is increasing and planning authorities are implementing stricter controls in terms of safety distances and impacts on settlement and sensitive land uses.

### **Evidence Based Environmental Study 10: Landscape & Visual**

This study examined the actual visual and landscape effect of towers and substations over a range of Ireland's typical landscapes.

In order to assess how landscape character affects the impact of transmission infrastructure and how this changes over distance, the visual impact from 100 to 3,200 metres was examined in the study. The landscape and visual effects from 110kV, 220kV and 400kV towers and substations were found to be significant for all sites included in the study. The study found that the majority of significant effects were within 400m of all towers (96%) and substations (86%) and impacts were significantly reduced with distance. In addition, no visual effects were found after 800m.

The study determined that screening aids such as tree and hedgerow planting can help to reduce the impact of 110kV towers. However, screening is not as effective at reducing the prominence of 220kV and 400kV. Therefore, the routing of lines to maximise 'backclothing' can be utilised to reduce the impact of 220kV and 400kV towers.

Landscape and visual effects from 110kV, 220kV and 400kV towers and substations were found to be significant for all sites included in the study. Effective screening would be required to reduce the impacts associated with 110kV lines and back-clothing can be utilised to reduce the impact of 220kV and 400kV towers.



**CONSULTANTS IN ENGINEERING,  
ENVIRONMENTAL SCIENCE  
& PLANNING**

**[www.fehilytimoney.ie](http://www.fehilytimoney.ie)**

---

 **Cork**

 **Dublin**

 **Carlow**

