

# TSO PR5 Strategic Objectives

## Multi-Year Plan

2023-2027

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16 January 2023



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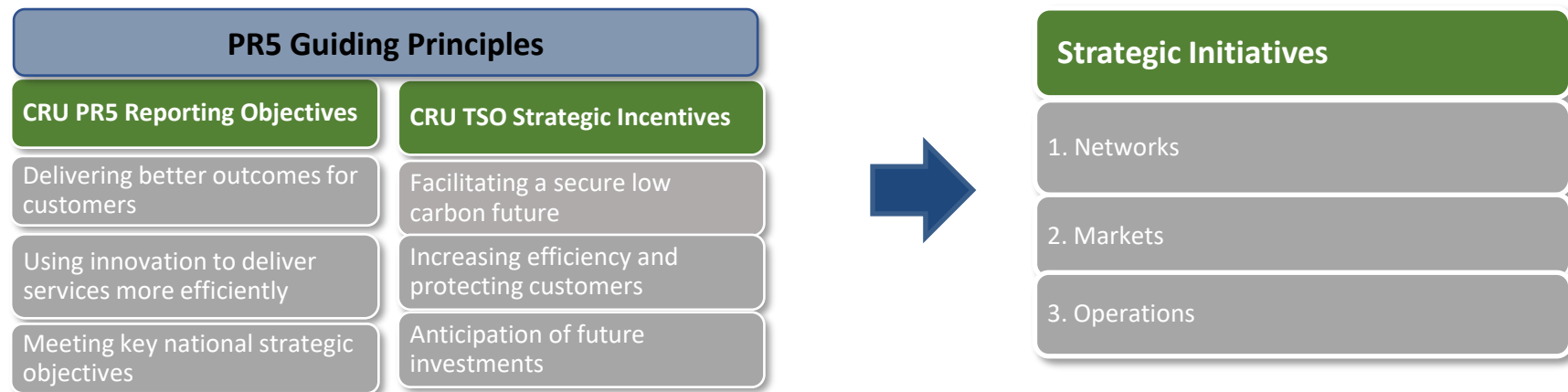
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# 1. Introduction

CRU/20/154<sup>1</sup> Decision Paper contains direction and guidance to EirGrid as the Transmission System Operator (TSO) on incentives and reporting arrangements for the Price Review 5 (PR5) period, 2021-2025. The objective of the CRU’s PR5 reporting and incentives, as per the Executive Summary of CRU/20/154, is to ensure that network companies are focused on delivering better outcomes for customers; using innovation to deliver services more efficiently; and meeting key national strategic objectives. This paper outlines the TSO PR5 Strategic Objectives Multi-Year Plan 2023-2027.

As per Section 7.10 and Annex 11 of CRU/20/154, the CRU has identified three key areas for consideration when proposing the TSO Strategic Incentives - facilitating a secure low carbon future; increasing efficiency and protecting customers; and anticipation of future investments.

These objectives are strongly aligned to the EirGrid Group Strategy and to the initiatives and actions that we are now implementing to deliver it. Guided by these, whilst at the same time being cognisant of the incentives that are being reported separately, we are proposing to continue three workstreams across which we have developed TSO Strategic Incentives under the multi-year plan. These three workstreams are also closely aligned with EirGrid’s [Shaping our Electricity Future \(SOEF\) Roadmap](#).



*The guiding principles in PR5 have informed the three strategic initiatives that are reported in our multi-year plan for strategic objectives.*

<sup>1</sup> [CRU/20/154 PR5 Regulatory Framework Incentives and Reporting](#)

In this multi-year plan, we have refreshed the programme to reflect a revised outlook for the years 2023-2025. In July 2022, the Government of Ireland announced commitments to deliver further emissions cuts by 2030 and associated carbon budgets by sector, including for electricity. The Climate Action Plan 2023 was published on 21 December 2022 and reflects these new commitments. EirGrid is now undertaking additional analysis to revise Shaping Our Electricity Future which will take account of Climate Action Plan 2023. This will directly affect EirGrid's multi-year plan for Networks, Markets and Operations albeit not significantly for the 2023 deliverables. Until this work is completed, we are limited in what we can state in relation to our commitments in 2026 and 2027 and we will refresh this in the next iteration of the multi-year plan.

Shaping our Electricity Future also has an engagement stream which is not captured in this paper as it is incentivised under the Networks Stakeholder Engagement Evaluation Panel ('NSEE Panel') incentive. Delivery of the various workstreams and achievement of the secure transition to the 2030 renewable targets, and ultimately 2050 targets, will facilitate a secure low carbon future, increase efficiencies and protect consumers. In addition, a number of the initiatives anticipate future investment in the transmission system, and indeed investment required by others. In doing so they seek to address the requirements to support this investment whilst also seeking to ensure it is made efficiently and in the best interests of consumers.

Please note that EirGrid actions required as per the Security of Supply and Offshore Wind workstreams are being progressed via separate initiatives and as a result are not expressly referred to in this document at this time. Please refer to CRU Information Paper – Security of Supply Programme of Actions CRU21115<sup>2</sup> and the Irish Government's Policy Statement on the Framework for Ireland's Offshore Electricity Transmission System<sup>3</sup> for further information.

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<sup>2</sup> [CRU21115 CRU Information Paper Security of Electricity Supply – Programmed of Actions](#)

<sup>3</sup> [Policy Statement on the Framework for Ireland's Offshore Electricity Transmission System](#)

## 2. Multi-Year Programme

For each of these workstreams we outline a multi-year programme with elements of both annual and multi-annual deliverables. We propose to refine this as we move through each year and as the deliverables in each of the subsequent years after 2023 become clear. With the PR5 guiding principles in mind and the main strategic incentives at hand the table below describes the prescriptive actions to facilitate a secure future, increase efficiency and protect customers in anticipation of future investments. The Networks activities seek to maximise the effectiveness and efficiency of the transmission system through the use of innovative and flexible solutions. This will maintain and extend the current network in anticipation of future investments reducing the cost burden on end customers. Many of the activities listed under Markets are specifically related to the encouragement of renewables onto the system in support of the national target of 80% renewable electricity by 2030. These market activities are an important way of stimulating further investment by participants. Operations activities are focused on enabling the system to operate in a way that promotes a lower carbon future. Put together, the Network, Market and Operations activities address all of the key strategic incentives in a balanced manner.

Some actions are more closely aligned with specific strategic incentives and so therefore they are numbered as follows.

- Facilitating a secure low carbon future (Indicated with **1**);
- Increasing efficiency and protecting customers (Indicated with **2**);
- Anticipation of future investments (Indicated with **3**)

Incentive Heading	2023	2024	2025	Benefits/Outcomes for customers and market participants
<b>Networks</b>	<ul style="list-style-type: none"> <li>• Q2 - Develop a Flexible Network Strategy: Maximising Network Utilisation Readiness Plan <b>2/3</b></li> <li>• Q2 - Commence process to procure new Computerised Maintenance Management System (CMMS) <b>3</b></li> <li>• Q3 - Investigate new approach for transmission maintenance <b>2</b></li> <li>• Q3 - Complete Risk Assessments from impacts</li> </ul>	<ul style="list-style-type: none"> <li>• Q3 - Complete Asset Reliability Study <b>2/3</b></li> <li>• Q4 - Participate in an International Transmission Asset Management Survey (ITAMS) <b>2/3</b></li> </ul>	<ul style="list-style-type: none"> <li>• Detailed 2025 deliverables will be defined after publication of Shaping our Electricity Future 1.1</li> </ul>	<ul style="list-style-type: none"> <li>• Scenario-based analysis to identify an optimal Transmission Network Roadmap</li> <li>• Optimised overall joint delivery approach between EirGrid and ESB Networks</li> <li>• Minimize the requirement for outages during construction</li> <li>• Delivery of the outage programme and in turn the grid delivery programme as effectively and efficiently as possible</li> </ul>

	<p>of Climate Change on Transmission System and identify Climate Change Adaptation Measures <b>1</b></p> <ul style="list-style-type: none"> <li>• Q4 - Optimise the Network Delivery Programme (NDP) by integrating outage constraints.<sup>i</sup> <b>2/3</b></li> <li>• Q4 - Complete online condition monitoring (OLCM) pilot project and if deemed successful, develop proposal for wider OLCM on transmission system. <b>2</b></li> </ul>			<ul style="list-style-type: none"> <li>• More efficient approach to maintenance, outage planning and enable a real time approach to asset condition and asset management decision making.</li> <li>• Further embedding a risk based approach to the climate impacts on transmission infrastructure.</li> </ul>
	<p><b>Ongoing multi-year deliverables<sup>4</sup>:</b></p> <ul style="list-style-type: none"> <li>• Complete electricity grid Technology Toolbox solutions for enhanced flexible network operation<sup>ii</sup> <b>2/3</b></li> <li>• Develop flexible networks strategy for deployment of “non-wires” grid technologies <b>2/3</b></li> </ul>			
<b>Markets</b>	<ul style="list-style-type: none"> <li>• Q1 - Develop a detailed design and programme plan for regulatory approval on Scheduling and Dispatch changes <b>2/3</b></li> <li>• EirGrid to submit full implementation plan for Future Arrangements for System Services (FASS) to the RAs one quarter after both receipt of detailed decisions regarding</li> </ul>	<ul style="list-style-type: none"> <li>• Q2 - ORESS 2 Complete<sup>iv</sup> <b>1</b></li> <li>• Further 2024 deliverables will be defined after publication of Shaping our Electricity Future 1.1</li> </ul>	<ul style="list-style-type: none"> <li>• Detailed 2025 deliverables will be defined after publication of Shaping our Electricity Future 1.1 (SoEF 1.1)</li> </ul>	<ul style="list-style-type: none"> <li>• Provide the necessary incentives for third-party investment and the financial support needed for renewable and low carbon assets and system services</li> <li>• Alignment between the energy, capacity, system services markets, and related investment drivers with operational requirements decreases the</li> </ul>

<sup>4</sup> The multi-year deliverables for Networks will be updated following publication of SoEF 1.1.

<p>programme from the RAs and RAs confirmation of funding provision <b>1/2</b></p> <ul style="list-style-type: none"> <li>• Q2 - Offshore RESS 1 Auction Completed <sup>iv</sup> <b>1</b></li> <li>• Network Tariff Review – EirGrid to update markets deliverables for 2023 following CRU provision of guidance re next steps to EirGrid in Q1 2023<sup>iii</sup> <b>2/3</b></li> </ul>			<p>risk of inefficient investment resulting in higher than necessary costs to the consumer and the risk of falling short of renewable targets.</p> <ul style="list-style-type: none"> <li>• Ensure RESS design is refined in light of updated sectoral and technology targets with reasonable clearing prices reducing the cost to the consumer.</li> </ul>
<p><b>Ongoing multi-year deliverables<sup>5</sup>:</b></p> <ul style="list-style-type: none"> <li>• Alignment of the energy market with high penetration of renewable generators - leading to scheduling and dispatch changes to ensure all market technologies and participants have equal access and opportunities <b>1/3</b></li> <li>• Capacity Market alignment with a high-RES world and system requirements. <b>1/3</b></li> <li>• Alignment of onshore and offshore RESS Terms and Conditions to achieve CAP targets. <b>1</b></li> <li>• Future Arrangements - Phase 1 New Daily Auction and Transition from DS3 System Services to Future Arrangements - Phase 2: Fixed Term Contracts for zero carbon; and Phase 3 - Development of new services and longer-term risk management of Future Arrangements <b>1/2</b></li> <li>• Full Integration of the SEM into GB and EU markets – <b>2/3</b> <ul style="list-style-type: none"> <li>○ Post Brexit SEM/GB Day ahead Capacity allocation arrangements</li> <li>○ Post Brexit SEM/GB Day ahead Capacity calculation arrangements</li> <li>○ Post Brexit SEM/GB – Future market timescales work</li> <li>○ Full integration with EU Capacity Calculation Region (CCR)</li> </ul> </li> <li>• Full EU Integration Design <b>1/2</b></li> </ul>			

<sup>5</sup> The multi-year deliverables for Markets will be updated following publication of SoEF 1.1.

<b>Operations</b>	<ul style="list-style-type: none"> <li>• Q1 - Conclude all power system studies to support the commencement of an operational trial with 7 large synchronous units / 20,000 MWs inertia floor. <b>1</b></li> <li>• Q1 – Control Centre of the Future: Develop a delivery plan for the tools and capability we need to operate the system to 2030 <b>1/2/3</b></li> <li>• Q3 – Subject to Regulatory Authority approvals, commence a procurement process for low carbon inertia services.<sup>iii</sup> <b>1/2/3</b></li> </ul>	<ul style="list-style-type: none"> <li>• Detailed 2024 deliverables will be defined after publication of Shaping our Electricity Future 1.1.</li> </ul>	<ul style="list-style-type: none"> <li>• Detailed 2025 deliverables will be defined after publication of Shaping our Electricity Future 1.1.</li> </ul>	<ul style="list-style-type: none"> <li>• Continued secure operation of the power system</li> <li>• Operating the future power system with fewer conventional synchronous generators to accommodate large penetrations of variable non-synchronous RES and keeping curtailment levels to a minimum</li> <li>• Delivery of the required system services and demand side flexibility to enable the transition to 2030.</li> <li>• Identifying technical scarcities and operational needs and clarifying the system technical needs – both now and projected for the future.</li> </ul>
	<p><b>Ongoing multi-year deliverables:</b>  The multi-year deliverables for Operations will be updated following publication of SoEF 1.1 and Phase 2 of the Operational Policy Roadmap to 2030 (covering the period 2023 to 2030) and future updates to same will inform future multi-year deliverables.</p>			

<sup>i</sup> Dependency on TAO

<sup>ii</sup> Dependency on DSO and TAO

<sup>iii</sup> Dependency on Regulatory Authorities

<sup>iv</sup> Dependency on DECC and Regulatory Authorities



### 3. Incentives – Deliverables/Actions

We have outlined below our three incentive headings - Networks, Markets and Operations. Under each heading we have included a description of the initiatives that we are delivering which together address the requirements set out in CRU/20/154 for the TSO strategic incentive.

#### A. Networks

Between now and 2030, there needs to be a transformational step change in the volume of network reinforcement delivered across the transmission network. This is required to support the delivery of the renewable ambition in an efficient and effective manner. This work also ensures greater efficiency and protection of customers. The initiatives outlined are directly aligned with the transmission network developments out to 2030. The future evolution of the power system beyond 2030 is also implicitly considered in delivering on ambitions to be carbon neutral before 2050.

There are a number of key strategic enablers that have been identified as being fundamental for infrastructure delivery within the required timeframes out to 2030. These have been identified based on a combination of project delivery experience and engagement with stakeholders and communities. These enablers are described below:

- 1. Optimal programme delivery of projects (TSO/TAO Joint Delivery Approach)** – there is a significant programme of grid development work identified to 2030 which includes key projects that will help to deliver on our 2030 renewable targets. This programme also includes some non-wire reinforcements (flexible network devices). This is in addition to the system reinforcement projects already committed to or in progress and which are at various stages of the Framework for Grid Delivery in Ireland. Furthermore, there will be additional network required to support the connection of new generation on to the power system. We will work closely with our partners in the TAO to deliver on these reinforcement solutions out to 2030. Considering the number and scale of these projects, optimising their delivery is paramount in meeting our targets to facilitate the addition of the portfolio of capacity required to deliver a low carbon electricity system and in doing so support the Government targets for a low carbon future.

The programme of work in Ireland is significant. Therefore, EirGrid and ESB Networks will look at ways to streamline how we work, incorporating learnings from previous projects with a view to optimising the overall joint delivery approach. For example, early engagement by EirGrid and ESB Networks on scope and approach (including integrating outage constraints, procurement, site investigations, construction approach, maintenance etc.) will be adopted where appropriate for key projects due to complexity and risk to delivery timeline. This process is linked with the objective of maximising the efficient development of the transmission system and protecting customers by minimising constraints and development costs.

- 2. Transmission Outages** – the ability of the TSO to facilitate outages is a fundamental part of the programme of works for delivering network reinforcements. These network reinforcements will contribute to meeting our 2030 targets for a low carbon future as well as anticipating future investment by customers into projects that will require them. Outages are a key constraint that must be optimised before and during project delivery both in the context of the individual project as well as the wider network delivery programme.

Based on experience of outage constraints, early consideration of outage requirements has been identified as a key enabler for project delivery. This means that outages will feed into the decision making and “optioneering” for projects in terms of deliverability. The optimisation of the Network Delivery Programme to include outage constraints is a process that seeks to maximise EirGrid’s ability to accommodate the necessary transmission outages to deliver the required network enhancements over the coming years. EirGrid and ESB Networks will continue to work closely to deliver the outage programme and in turn the grid delivery programme as effectively and efficiently as possible.

- 3. Incentivising Location** – there are advantages to locating new demand outside of congested parts of the grid. Similarly, there are advantages to connecting new renewable generation capacity in areas of the network with more capacity available on the grid. By optimising the location of new demand and generation connections, overall costs can be reduced due to a need for fewer reinforcements and lower levels of network constraints. It also means that grid projects can be delivered sooner thus increasing efficiency and protecting customers as well as contributing to the timely delivery of renewables targets.
- 4. Planning Consents** - for many grid reinforcement projects, a key part of the project programme is obtaining the necessary planning consents in a timely manner. We will continue to work with the relevant consenting authorities, as well as all relevant prescribed bodies to submit the necessary planning applications to deliver on the projects and to do this in the most optimal manner possible. We will continue to work at a strategic level to identify our projects as part of national and regional and local planning policy focussing on established development plan structures. Considering the number and scale of these projects, optimising the planning process to ensure it can be executed in the most efficient manner possible is critical in meeting our renewable targets for a low carbon future.
- 5. Technology Toolbox** – consideration has been given to identifying and implementing mechanisms, tools and processes, in addition to network build, to relieve network congestion in order to facilitate additional renewable connections and allow export of generation on to the system. These will be rolled out to specific parts of the network in the years out to 2030. This is beneficial for customers as it minimises constraints as well as anticipating future investments in generation projects. A key part of this will be the development of a flexible network strategy to ensure that flexible technologies installed on the system are leveraged to maximise their benefit, working closely with the DSO. EirGrid is currently working to develop a Network Utilisation Readiness Plan that is due to be completed in 2023 and will define a methodology and criteria for identification of candidate grid locations for Dynamic Line Rating.
- 6. Asset Management** - we will also develop and implement a long-term strategic approach to asset management. In February 2022, EirGrid successfully achieved accreditation of ISO 55001, the International Standard for Asset Management. EirGrid has developed an Asset Management System that conforms to ISO 55001. Adopting the ISO 55001 principles will over time drive reduced costs and improve the service quality of the transmission system infrastructure by improving efficiency and effectiveness of transmission assets and their management, increasing transmission service reliability and outputs, making reliable and heavily informed asset investment decisions with reduced risk and maximising the return on investments.

We will complete risk assessments of the transmission system from the impacts of Climate Change and identify Climate Change Adaptation Measures, this is an action that is contained within the [Electricity and Gas Networks Sector Climate Change Adaptation Plan](#)<sup>6</sup>. Flooding has been identified as a significant risk to the Transmission System, the work will involve identifying transmission stations that are most at risk from flooding as a result of climate change and identifying measures to protect these stations.

We will conduct and review the outcome of an Online Condition Monitoring (OLCM) pilot project which will involve installation of the latest technology online sensors on specific assets at 3 transmission stations. The sensors will monitor the performance of these assets and provide real time asset data to assist with operational and asset management decision making. If deemed successful, we will implement more OLCM on the transmission system to provide information to asset managers and maintenance departments to form the basis for maintenance, repair or refurbishment decision making and programming. We will also participate in an International Transmission Asset Management Survey (ITAMS)<sup>7</sup>, a Global Learning Consortium conducted every two years by UMS Group. The ITAMS program focuses on the tactical level of Asset Management. Participation in this international benchmarking exercise will provide a valuable comparator against similar organizations in both Asset Management practices and results (value realisation) and where there is room for improvement versus “best practice”.

## B. Markets

The Single Electricity Market (SEM) will play an integral role in providing the necessary incentives for third-party investment and the financial support needed for renewable assets. This is key for the procurement of necessary energy and system services needed to operate the power system at high levels of electricity from Renewable Energy Sources (RES-E).

Achieving this goal will require industry stakeholder commitment and extensive engagement with governments, regulatory authorities, market participants, consumers, and other interested parties to agree, develop and approve the market rules, process and market system changes needed to achieve the 2030 targets.

To achieve the higher levels of renewable supply to achieve the Government’s decarbonisation targets and hence a low carbon future, additional system and adequacy services will be required to be available to ensure we can meet demand requirements securely with close to 95% non-synchronous generation. The alignment between the energy, capacity, system services markets, and related investment drivers with operational requirements is essential. Failure to do so may increase the risk of inefficient investment resulting in higher than necessary costs to the consumer and the risk of falling short of the 2030 targets.

EirGrid recommends a number of key market initiatives are needed to evolve the current design to achieve the 2030 targets, which can be categorised under the following high-level groupings each of which will result in significant changes to the existing electricity market design, processes, and systems: Fulfilling these groupings will ensure greater market confidence and will provide greater anticipation for future investment.

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<sup>6</sup> [gov.ie](http://www.gov.ie) - [Electricity and Gas Networks Sector Climate Change Adaptation Plan \(www.gov.ie\)](#).

<sup>7</sup> [ITAMS - International Consulting Firm \(umsgroup.com\)](http://umsgroup.com)

- 1. Scheduling and Dispatch** - EirGrid and SONI are progressing a Scheduling and Dispatch Programme of work (SDP). This aims to define and implement a number of initiatives to enhance the technology and capability of EirGrid Group's scheduling and dispatch processes. These initiatives are required to support government targets for renewables and emissions in both Ireland and Northern Ireland by enabling new and existing low carbon and renewable assets to participate more fully in the scheduling and dispatch process. The SDP will also ensure compliance with Article 12 and elements of Article 13 of the Clean Energy for all Europeans package (CEP) Regulation EU 2019/943 and related SEMC decision papers.
- 2. Future Arrangements for System Services** - the current arrangements for system services, which are tariff-based, were designed to facilitate the provision of innovative services from both existing and new technologies to meet 2020 targets. In order to incentivise the correct investment to provide the System Services that will be needed by the power system for 2030 and beyond, facilitating increased provision of services from low carbon technologies, higher levels of System Non-Synchronous Penetration (SNSP) and in order to meet our 2030 targets, it is necessary to design and implement new arrangements based on volume regulation, under which services will be auctioned. EirGrid is working with the Regulatory Authorities to develop these future arrangements.
- 3. Offshore RESS Auction** - EirGrid is working with the DECC and CRU on the development of the first Offshore Renewable Electricity Support Scheme Auction (ORESS) as well as providing the necessary information to the developers of the phase 1 projects to participate in it. The ORESS auction will take place in 2023 in accordance with the timelines as set out by the DECC.
- 4. Tariff Design** -The current framework of Transmission Use of System tariffs, introduced in the year 2000, may be reassessed and modified where necessary as we move towards a more dynamic and decentralised electricity power system. EirGrid will update associated deliverables in this regard following CRU provision of guidance to EirGrid in Q1 2023.

### C. Operations

In order to deliver on government renewable energy policies, it will be necessary to accommodate unprecedented penetrations of variable non-synchronous RES such as offshore wind, onshore wind, and solar whilst keeping curtailment levels to a minimum.

This will require a significant evolution of the operation of the power system and for EirGrid and SONI to deal with unique challenges that will not be faced in larger more heavily AC interconnected power systems for years to come.

We have developed a programme of work which will enable us to enhance our power system operational capability out to 2030. This all-island programme of work will build upon the programme of activity that was carried out, and the extensive knowledge, learnings and experience developed, as part of the "Delivering a Secure Sustainable Electricity System" (DS3) Programme which was a key enabler in achieving the 2020 RES-E target of at least 40%.

This programme of work is focused on ensuring we have the system services that are required to support managing the resilience of the power system. New system service capabilities from low carbon sources are required to address the technical and operational challenges arising from the need to operate with SNSP levels up to 95% by 2030. In addition, it will help release the full potential of demand-side flexibility which will be critical to ensuring we can enable the transition to high levels of RES-E and facilitate electrification of the heat and transport sectors while maintaining power system security. In Q2 2022, we published Phase 1 of an “Operational Policy Roadmap to 2030”<sup>8</sup> which set out our plans to the end of 2023 across a range of key metrics. Phase 2 of the Roadmap<sup>9</sup>, which will set out the plans from 2023 to 2030 was published in Q4 2022. This roadmap will be reviewed and updated every two years.

The System Operations work will be arranged around four main workstreams:

- 1. Operational Policy:** The objectives of this workstream are to undertake operational studies and analysis and develop operational policies to facilitate the transition to 80% RES-E by 2030;
- 2. Standards & Services:** The objective of this workstream is to ensure we have the right operational standards and appropriate system services frameworks to support investment in required capability;
- 3. Operational Tools:** The objective of this workstream is to identify and oversee the delivery of enhanced and new integrated control centre technologies and tools that are required to operate the system securely and efficiently with increasing levels of variable non-synchronous RES; and
- 4. Technology Enablement:** The objective of this workstream is to facilitate the development and integration of new technologies and innovations on the power system to enable them to operate efficiently and effectively.

Some key activities arising from these workstreams are listed below:

In 2023, EirGrid will be concluding its power system to support the commencement of an operational trial with 7 large synchronous units/20,000MW inertia floor. Relaxing these constraints will reduce our dependency on running conventional thermal generation thereby facilitating more RES-E generation on the power system. This concluding activity to enable the commencement of this trial will work to progress the facilitation of a low carbon future.

EirGrid will also be working in 2023 on the next phase of its ‘Control Centre of the Future’ to develop a delivery plan for tools and capability required to operate the system to 2030.

One further activity that EirGrid will be conducting in 2023 is to commence a process for low carbon inertia services. Doing so will reduce dependency on conventional thermal generation for services and allow more renewable generation on to the system.

These workstreams will progress EirGrid’s work to facilitate a low carbon future, increase efficiency, protect customers and will also be done in anticipation of future investment. It should be noted that these workstreams will require considerable interaction and engagement with the DSO.

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<sup>8</sup> [Operation Policy Roadmap Phase 1](#)

<sup>9</sup> [Operational Policy Roadmap Phase 2](#)

## 4. Interdependencies/Assumptions

Some of the initiatives outlined in the sections above are reliant on a number of key macro interdependencies and assumptions. Foremost amongst these are prompt decision-making from the regulatory authorities, a continued engagement in relation to the policy environment and close cooperation from the two distribution system/network operators on the island of Ireland. Greater detail is included in the table in Section 2 above and in the end notes to this paper.

It is assumed, for any deliverables which are reliant on a pilot scheme, regulatory decision or statutory decision in advance, that the necessary pre-requisite or dependency has been successfully achieved in a timeframe allowing for any required subsequent action by EirGrid for their delivery.

The 2023 plan is more detailed, and it is envisaged that the detail of subsequent years will be refined and updated in subsequent revisions to the multi-year plan. The plans for 2026 and 2027 will be informed by the multi-year deliverables listed in the summary of incentives table of Section 2. SoEF 1.1 will have an influence on these also as well as the CAP 2023 annex of actions.

Future iterations of this multi-year plan post-consultation is anticipated to be tightly coupled with Shaping our Electricity Future 1.1 Roadmap. As the roadmap is currently planned to be published during 2023, it is likely that 2023 deliverables will not be affected by this roadmap.

## 5. Performance Assessment

We propose the balanced scorecard be weighted evenly across the workstream initiatives with deliverables to be achieved in each calendar year. For each of the initiatives proposed above, the outcome is clear. In the TSO outturn performance report to CRU each year we will evidence how we have performed against the multi-year programme, incorporating feedback from stakeholders as proposed in the PR5 incentives framework.

The potential allowed upside in each calendar year is €0.5 million. We propose that the allowed upside be calculated on a linear basis with the quantum of deliverables achieved per calendar year directly related in percentage terms to the allowed upside.

## 6. Acronyms

<b>Acronym</b>	<b>Definition</b>
CAP	Climate Action Plan (Government 2030 Targets)
CMMS	Computerised Maintenance Management System
CRU	Commission for Regulation of Utilities
DECC	Department of Environment, Climate & Communications
DHPLG	Department of Housing, Planning, & Local Government
DS3	Delivering a Secure Sustainable Electricity System Programme
DSO	Distribution System Operator
ESBN	ESB Networks
ETBI	Education and Training Board Ireland
ITAMS	International Transmission Asset Management Survey
ISO55001	International Organisation for Standardisation – standard 55001 is for Asset management – Management systems
MWs	Megawatt-second – measurement of inertia
OLCM	Online condition monitoring
ORESS	Offshore Renewable Electricity Support Scheme
PR5	Price Review 5
RES	Renewable Energy Systems
RES-E	Electricity from Renewable Energy Sources
RESS	Renewable Electricity Support Scheme
RGI	Renewables Grid Initiative
SEM	Single Electricity Market
SNSP	System Non-Synchronous Penetration
SoEF	Shaping our Electricity Future
TAO	Transmission Asset Owner
TSO	Transmission System Operator

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<sup>i</sup> Dependency on TAO

<sup>ii</sup> Dependency on DSO and TAO

<sup>iii</sup> Dependency on Regulatory Authorities

<sup>iv</sup> Dependency on DECC and Regulatory Authorities