

SONI Forward Work Plan

2023 - 24

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Foreword

SONI has prepared this Forward Work Plan in line with the Utility Regulator's (UR's) Guidance on the Evaluative Performance Framework that came into effect in January 2022. It has become part of our annual business planning process and this edition covers the period from 1 October 2023 to 30 September 2024. The Forward Work Plan provides an overview of the initiatives that SONI is planning to deliver across a set of four TSO roles: System Operations; Independent Expert; System Planning; and Commercial Interface. The publication of this plan sets the tone for our accountability for the services we provide and the programmes of work that we will deliver.

We appreciate the value that stakeholder input provides. As a result of the feedback received through previous years, we recognise that we need to continue to build on our stakeholder engagement exercises. In this plan we set out the engagement activities currently planned for each role over the 2023-24 period. In line with the UR's Guidance on the Evaluative Performance Framework, the UR welcomes submissions from stakeholders to provide feedback on SONI's Forward Work Plan. The UR will also host a stakeholder event which will provide an opportunity for further feedback and allow questions on our plan. SONI would also welcome any feedback to this publication¹.

I would like to take the opportunity to thank stakeholders for their feedback ahead of this process, as this will help to inform our implementation of this plan and the content of future plans.



Alan Campbell
SONI
Managing Director

¹ Stakeholders can provide comments using the email address: info@soni.ltd.uk quoting "Feedback on SONI Forward Work Plan" in the subject heading.

Section 1: Introduction

As part of its Final Determination of the SONI Price Control 2020-25 the UR introduced an Evaluative Performance Framework², with the aim of

- SONI taking an open, flexible and collaborative approach to responding to stakeholders and considering new innovative ideas.
- SONI developing greater transparency and accountability to its operations in both its planning and performance reporting.
- Bringing additional skills, insights and knowledge to the UR's review of SONI's performance using independent experts, and
- Encouraging action from SONI that contributes to the positive outcomes for NI Consumers (SONI Outcomes)

The framework includes the publication of this Forward Work Plan, a stakeholder discussion on the plan, an interim performance update and an annual performance report. The UR has established an expert independent panel to assess these documents and will use the output from the process to inform its assessment of SONI's performance.

SONI's Forward Work Plan 2023-2024 highlights our key priorities for the year ahead which will help us to deliver on our obligations to the Northern Ireland consumers considering the drivers for change in 2024 as demonstrated below. The UR has asked that we structure our plan around four roles that we deliver. Therefore, this Forward Work Plan 2023-2024 is supplemented by seven appendices:

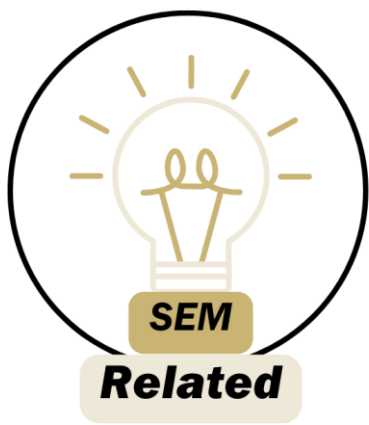
- Appendix 1: SONI Deliverables Role 1 System Operation and Adequacy
- Appendix 2: SONI Deliverables Role 2 Independent Expert
- Appendix 3: SONI Deliverables Role 3 System Planning
- Appendix 4: SONI Deliverables Role 4 Commercial Interface
- Appendix 5: SONI Performance Measures
- Appendix 6: SONI Stakeholder Engagement
- Appendix 7: SONI Self-Assessment

We have included an overview of the process in Appendix 7: SONI Self-Assessment, where we also include the criteria used to assess SONI's plans. A key function of the performance framework is listening to stakeholders when developing our Forward Work Plan. We would like to thank everyone who has shared their views with us.

The diagram below highlights the key areas of focus for each role over the period October 2023 to September 2024. A key requirement of the UR guidance is the inclusion of projects that have secured funding; therefore, we have included some future plans, where relevant, to give stakeholders more detail as the cut-off date of September 2024 will not always align with the milestones or funding for each project.

² ² [epf-guidance.pdf \(ureg.gov.uk\)](https://www.ureg.gov.uk/epf-guidance.pdf)

Note - The Utility Regulator (UR) issued correspondence to SONI on 7 July 2022 to advise SONI could proceed to issue the Forward Work Plan 2022-2023 by the end of September 2022 and updated guidance will be provided by the UR.



01

FWP23-01: Future Arrangements System Services (FASS)

02

FWP001: Low Carbon Inertia Services

03

FWP23-02: Scheduling and Dispatch

01

FWP24-02: Stakeholder Management Strategy

02

FWP23-26: Delivery Plan for NI Infrastructure Projects

03

FWP24-03: Review & Publish an Enhanced Public Engagement Process for Network Infrastructure



01

FWP24-04: SONI Price Control 2025+

02

SONI Governance

01

FWP23-14: Support the NI Energy Strategy

02

FWP24-01: Introduction of NRAA

03

FWP24-05: Tomorrows Energy Scenario Northern Ireland



Figure 1 Strategic Projects

Note - 'NRAA' is the National Resource Adequacy Assessment (FWP24-01)

SONI Governance

As highlighted in the SONI Mid-Year Performance Update 2022/23³ (published in April 2023) SONI has initiated a programme to fully implement the new licence requirements which took effect from late October 2022 (i.e., SONI TSO Licence Condition 42) relating to SONI Governance and Management.

The first key milestone in this programme is the appointment of a new board for SONI Ltd. At the time of writing, this process is ongoing, with close engagement with the UR (in line with the requirements specified under Licence Condition 42).

All decisions in relation to the implementation of the new obligations reside with the new SONI Board. On that basis, no detail on the SONI Governance programme has been included in this forward work plan.

SONI are continuing to work through the requirements to implement the new arrangements including:

- Closing out the appointment of the new SONI board and onboarding.
- Consideration of options to implement the licence requirement of managerial and resource separation operational independence.
- Consideration of a Compliance plan for new arrangements.
- Engagement with UR on cost recovery for all the new obligations

³ [SONI Mid-Year Performance Update 2022/23](#)

Section 2: Overview of SONI

SONI is the Transmission System Operator (TSO) for Northern Ireland. We are responsible for the safe, secure, efficient, and reliable operation of the high voltage electricity system.

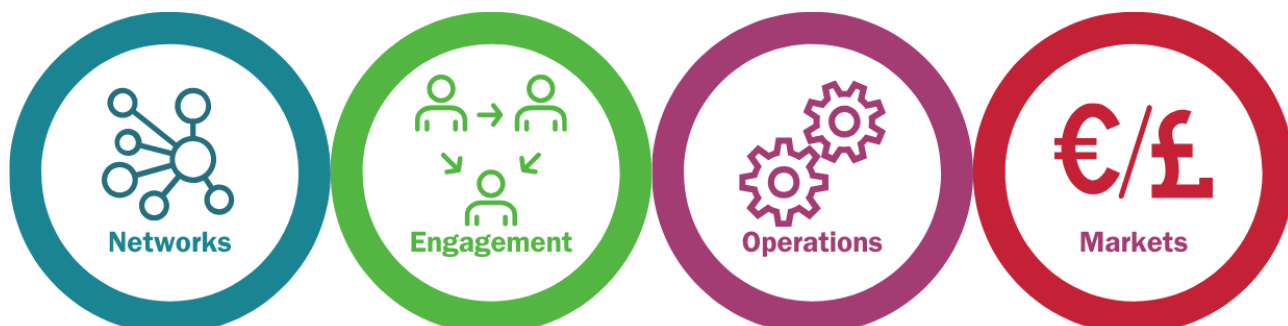


Figure 2 SONI Overview

SONI's statutory obligations to NI consumers include⁴:

- developing and maintaining an efficient, coordinated, and economical Transmission Network capable of meeting the long-term reasonable demands for the transmission of electricity
- Contributing to Security of Supply through adequate capacity and reliability, and
- Facilitating competition in Supply and Generation.

A key strand of these obligations is that we take a whole system, collaborated, and coordinated approach to working with all relevant organisations. In fulfilling our role, SONI:

- Operates and plans the development of the Transmission Network to meet reliability and capacity requirements in the short and longer term.
- Operates and plans the development of the Transmission Network in a way that best balances short term costs and the longer-term needs for the benefit of the NI consumer and user.
- Works in conjunction with parties across the whole supply chain to improve competition, deliver innovation and minimise short and long-term costs to the NI consumer, and
- Supports users to make informed decisions through seeking and embracing their requirements for openness and transparency.

⁴ Please see Article 12 of the Northern Ireland Electricity 1992 Order

Section 3: Strategy & Goals

The SONI Strategy 2020-25⁵ is shaped by climate change and the need for a secure transition of the electricity sector to low-carbon, renewable energy, in an economic and cost-efficient way. The context of climate change is well understood and beyond scientific doubt and the only question now is how fast society can respond to limit the damage already done and protect our planet for current and future generations. Our strategy is demonstrated in the Figure below.

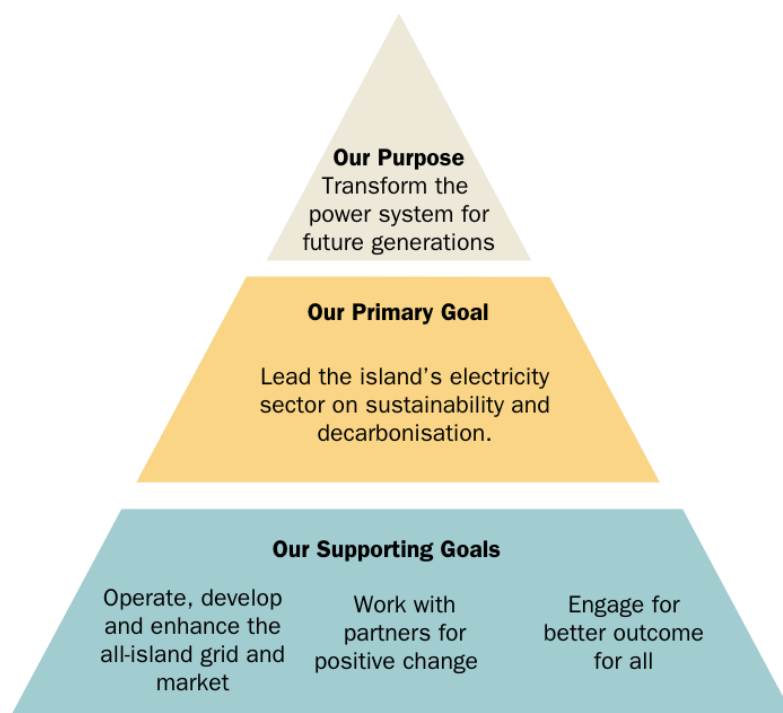


Figure 3 SONI Strategy 2020-25

To support this, in 2021 we launched the Shaping Our Electricity Future initiative, which sought to understand the changes needed to the electricity system to achieve at least 70% of electricity from renewable generation sources - referred to as RES-E (Renewable Energy Share in Electricity) by 2030 in Northern Ireland. In June 2022, the Climate Change Act (Northern Ireland) came into force. This legislation commits Northern Ireland to achieving net zero carbon emissions by 2050, the introduction of targets for 2030 and 2040 and the introduction of a carbon budget for 2023-2027 and every 5 years thereafter and the development of a climate action plan within 24 months. Part of this legislation also sets a new target of achieving at least 80% RES-E in Northern Ireland by 2030.

Given the updated legislation, we need to plan for an electricity system that can deliver up to 80% RES-E by 2030 in Northern Ireland. SONI published 'Shaping our Electricity Future Roadmap Version 1.1'⁶ in July 2023 to reflect the changes required to adapt to the increased target of 80%. A number of areas highlighted in this roadmap are included in the forward work plan.

⁵ [SONI Strategy 2020-25](#)

⁶ [Shaping Our Electricity Future Roadmap Version 1.1](#)

SONI and the NI Energy Strategy

Our strategy focuses on leading the Northern Ireland electricity sector on sustainability and decarbonisation. This primary goal, alongside our supporting outcomes of operating, develop and enhance the all-island grid and market; work with partners for positive change, and engage for better outcomes for all are aligned to actions that will facilitate delivery of the Northern Ireland Energy Strategy, The Path to Net Zero Energy Action Plan⁷. While we can influence all of the threads of the NI Energy Strategy, SONI has specific roles in the delivery of two of the key principles:

- Replace Fossil Fuels with Renewable Energy, and
- Create a Flexible, Resilient and Integrated Energy System

We have been actively supporting the Department for the Economy (DfE) in its Action plans for 2022 and 2023 and will continue to support where possible in the Action plan for 2024. We expect that many of the initiatives detailed in this forward work plan will complement the work being progressed as part of the delivery of the NI Energy Strategy.

One key strategic area of engagement is in relation to Offshore. SONI has representation on both Offshore steering group and working groups established by DfE. SONI envisages the work we are undertaking in Tomorrows Energy Scenarios Northern Ireland (TESNI)⁸ will act as a key input to this area.

⁷ [Energy Strategy - Path to Net Zero Energy. Action Plan 2023. \(economy-ni.gov.uk\)](https://economy-ni.gov.uk)

⁸ Please see Appendix 2, FWP24-06 Tomorrows Energy Scenarios Northern Ireland (TESNI) for more detail.

Section 4: Stakeholders

Overview

Stakeholder engagement is the key to successful delivery for SONI, across all four Roles. This year, we will be engaging intensively around changes to the wholesale electricity market, including changes to the commercial arrangements for providing system services and other major projects detailed under Role1.

Figure 2 below shows the broad range of stakeholders who we seek input from across the industry and statutory bodies.

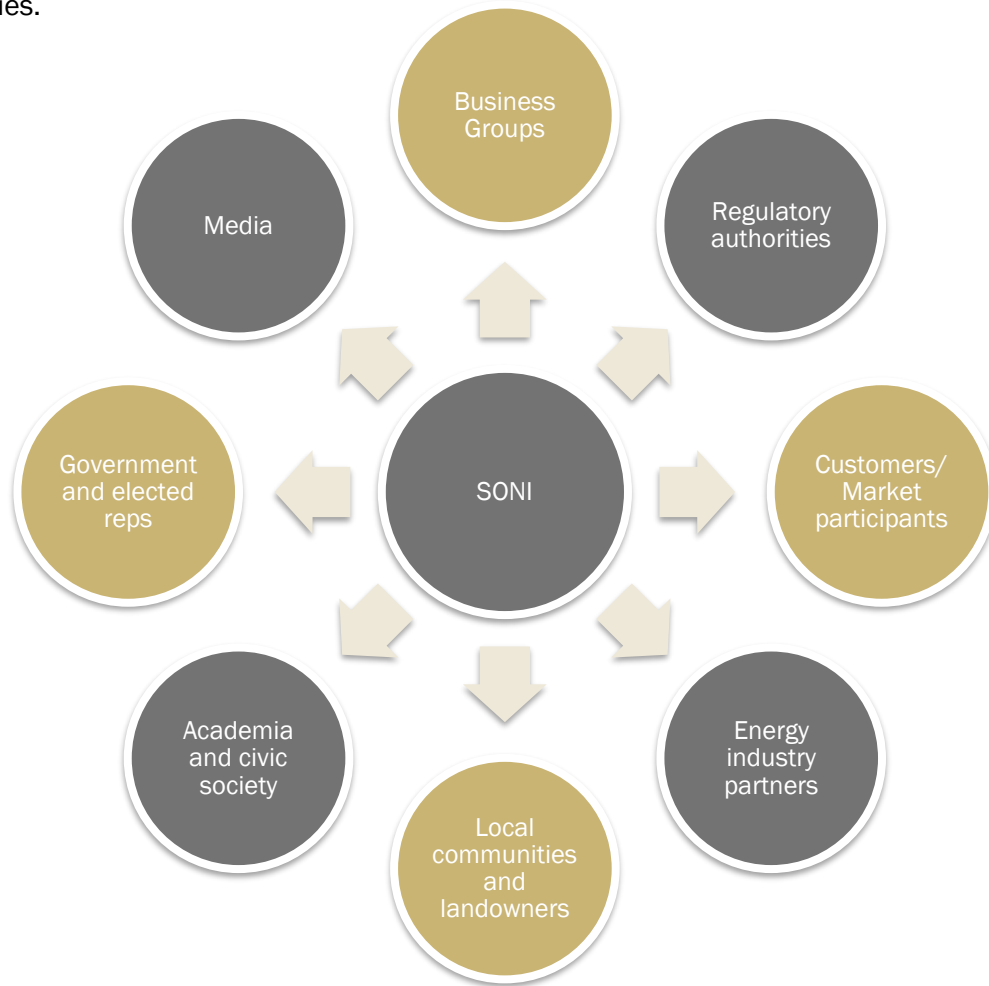


Figure 4 SONI Stakeholders

This section focuses on our planned engagements across the four roles during 2023/24. Appendix 6: SONI Stakeholder Engagement contains more information on how SONI engages, why we engage and what we do with the feedback we receive during this engagement process.

Engagement Approach for Grid Projects

Fundamentally, public acceptance is at the heart of our approach to grid delivery in Northern Ireland. We will continue to embed this approach in our projects and work with stakeholders and communities to deliver the grid solutions of the future. Early engagement with councils, landowners and impacted communities will enable optimal solutions to be identified and delivered effectively and efficiently. We develop detailed engagement and communications plans for individual projects and programmes of work as required.

Industry Engagement

During 2023/24, SONI will build on the industry engagement model that has underpinned the DS3 programme to communicate the developments we will be delivering over the year and to obtain feedback on them. These will cover the full suite of deliverables set out in this plan. Throughout the roles, SONI includes references to the project specific engagement activities that will be undertaken during the period, such as workshops and consultations. These are detailed in Appendices 1 to 4, which cover the associated deliverables of the four TSO roles.

Planned Engagement over 2023 - 2024

We will set out further details of our planned engagements in our Stakeholder Management Strategy, however we can confirm the following strategic engagements for 2023-24:



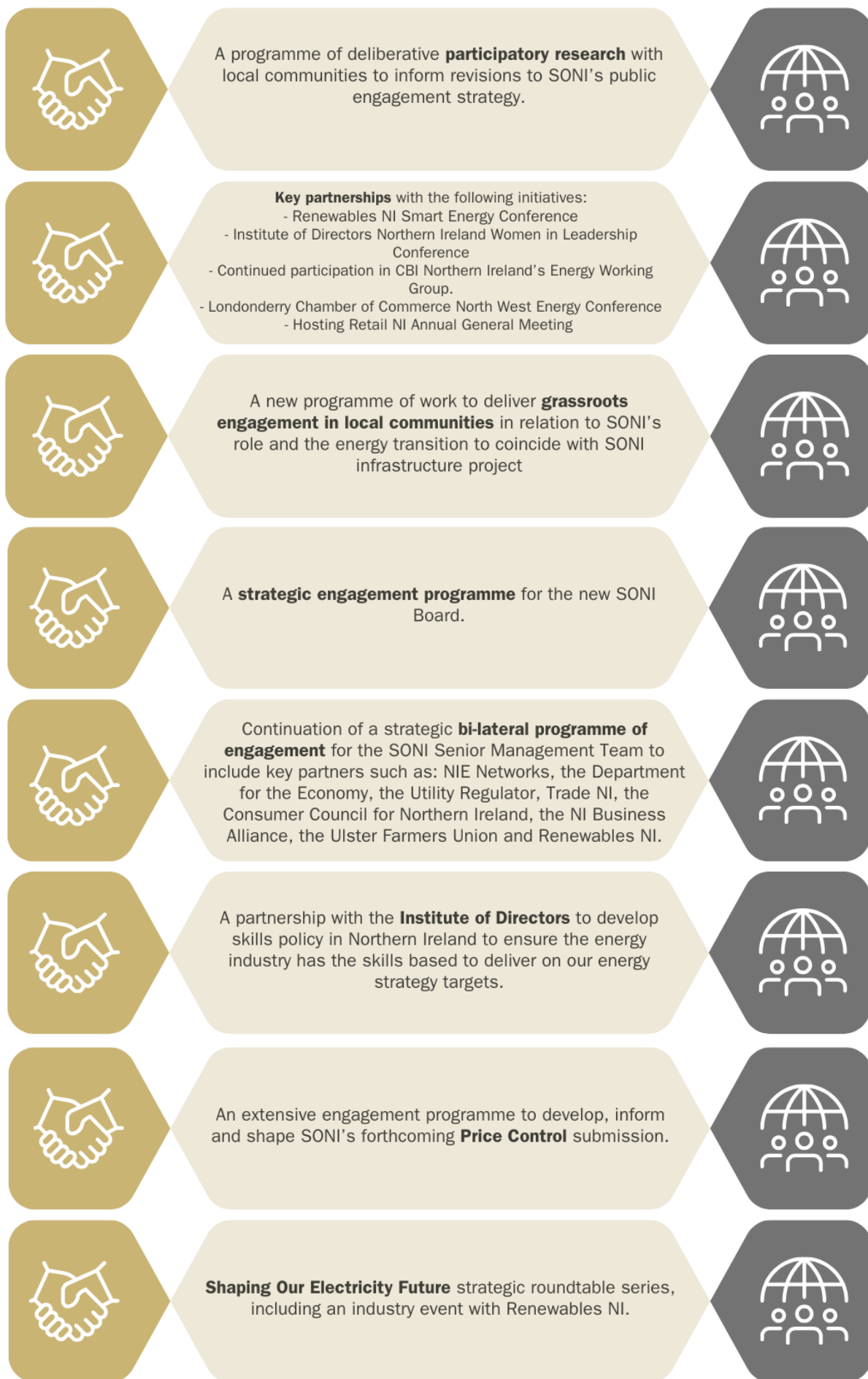


Figure 5 Planned Engagement 2023-2024

Section 5: Overview of Roles

The Forward Work Plan is presented across four TSO roles as demonstrated in the diagram below.

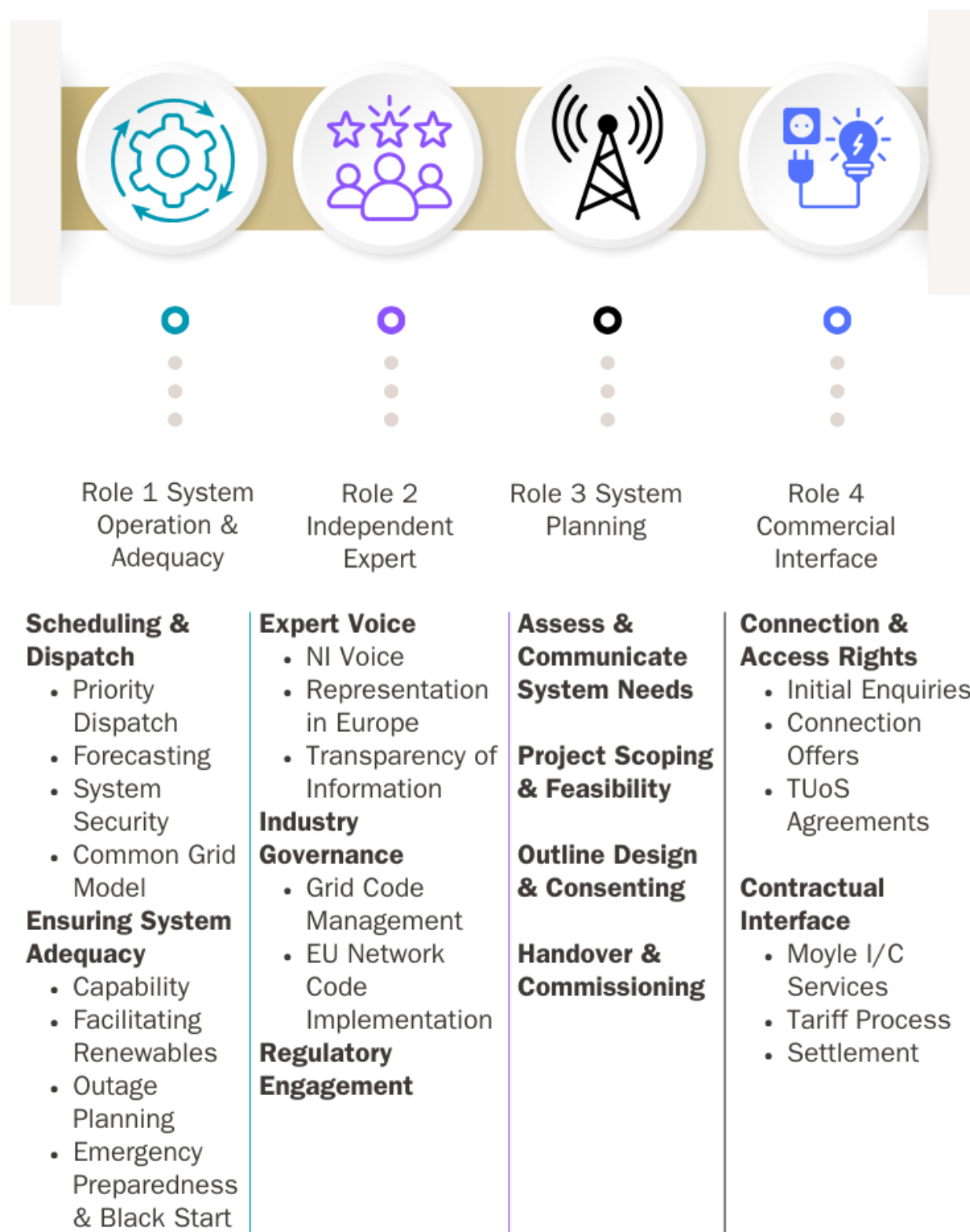






Figure 6 Overview of Roles

Layout of each role

For each TSO role, SONI provides a description of the key deliverables and a breakdown of each deliverable in turn. We also highlight the benefits these deliverables will bring and using the symbols below, we provide alignment from these benefits to each of the four SONI outcomes. The four SONI outcomes are the actions and behaviours which SONI is measured against.

Table 1 The Four SONI Outcomes

Symbol	SONI Outcome	Description
	Decarbonisation	The Northern Ireland electricity system supports government decarbonisation policy and targets
	Grid Security	Northern Ireland electricity consumers receive secure and reliable electricity supplies.
	System-Wide Cost	Northern Ireland electricity consumers get good value for money which reflects efficiency within, and across, different parts of the Northern Ireland electricity system and All Island system, over the short term and the longer term.
	SONI Service Quality	SONI provides an appropriate range and quality of services to participants in the Northern Ireland electricity system and other stakeholders.

For deliverables progressing through a programme of work which were detailed in either the 2021-2022 Plan⁹ or the 2022-2023 Plan¹⁰, we have retained the same project ID in order to maintain consistency so there is a clear continuation from the previous publication. For new projects detailed in the plan, a new project ID has been assigned to comply with the UR's Guidance requesting unique project IDs.

⁹ [SONI Forward Work Plan 2021/2022](#)

¹⁰ [SONI Forward Work Plan 2022/2023](#)

Performance Measures

We intend to measure two aspects of our delivery of this plan, the performance of each project and also successful delivery of each role. In the table below we provide information on the key performance indicators that we will use to measure successful delivery across each of our roles. Additional information for each measure of performance is provided in Appendix 5: SONI Performance Measures.

SONI TSO Role	Key Performance Indicator
Role 1 - System Operation and Adequacy	<ul style="list-style-type: none"> • System Non-Synchronous Penetration (SNSP) (%) • Renewable Dispatch Down (%) • Imperfections Costs (£) • System Frequency (%)
Role 2 - Independent Expert	<ul style="list-style-type: none"> • Timely delivery of publications/material • Achievement of the set of deliverables • Quality and Quantity of Stakeholder Engagement
Role 3 - System Planning	<ul style="list-style-type: none"> • Achievement of the set of deliverables • Quality and Quantity of Stakeholder Engagement
Role 4 - Commercial Interface	<ul style="list-style-type: none"> • Achievement of the set of deliverables • Quality and Quantity of Stakeholder Engagement

Figure 7 Key Performance Indicators

Cost Scale

Following the publication of the 2022/2023 Forward Work Plan¹¹, SONI received feedback from the UR and the Independent Panel surrounding the potential inclusion of cost information, which they considered would assist the audience in understanding the scale and/or importance of a project. SONI has created a Cost Scale, and throughout the plan, we have detailed where on this scale each project lies. The costs indicated are SONI related costs and do not cover any costs accrued by any stakeholder SONI may be collaborating with on the projects/initi.

This scale applied is detailed below:

Low	Medium	High	Very High
£0 - £500k	£500k - £1M	£1M - £5M	£5M +

Figure 8 Cost Scale

¹¹ [SONI Forward Work Plan 2022/2023](#)

Section 6: Role 1 System Operation and Adequacy

Overview of Role

Role 1 captures the associated deliverables linked to System Operation and Ensuring System Adequacy.

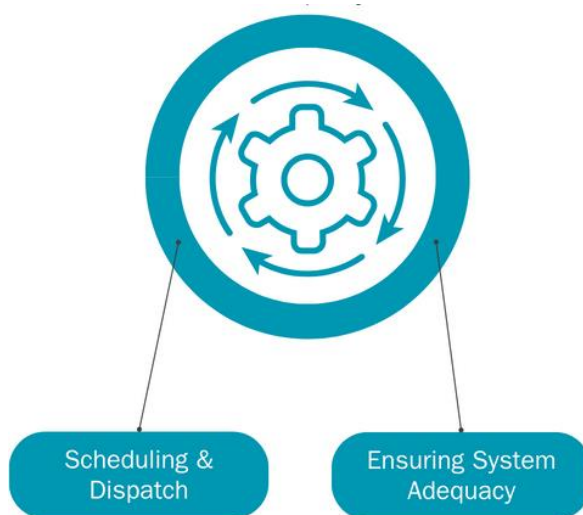


Figure 9 Role 1 Overview

Role 1 primarily relates to our operational and market related activities including scheduling and dispatch, future arrangements for system services, emergency preparedness and contributing to security of supply. Our work to facilitate of renewable generation is also covered here and is key in the context of the Northern Ireland Energy Strategy. This role is fully aligned with the requirements under the Single Electricity Market (SEM).

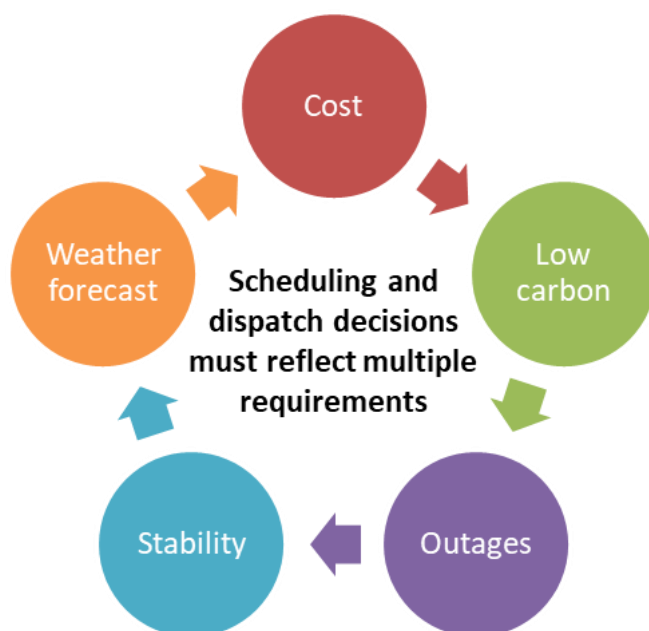


Figure 10 Scheduling & Dispatch Decisions

Summary of Deliverables

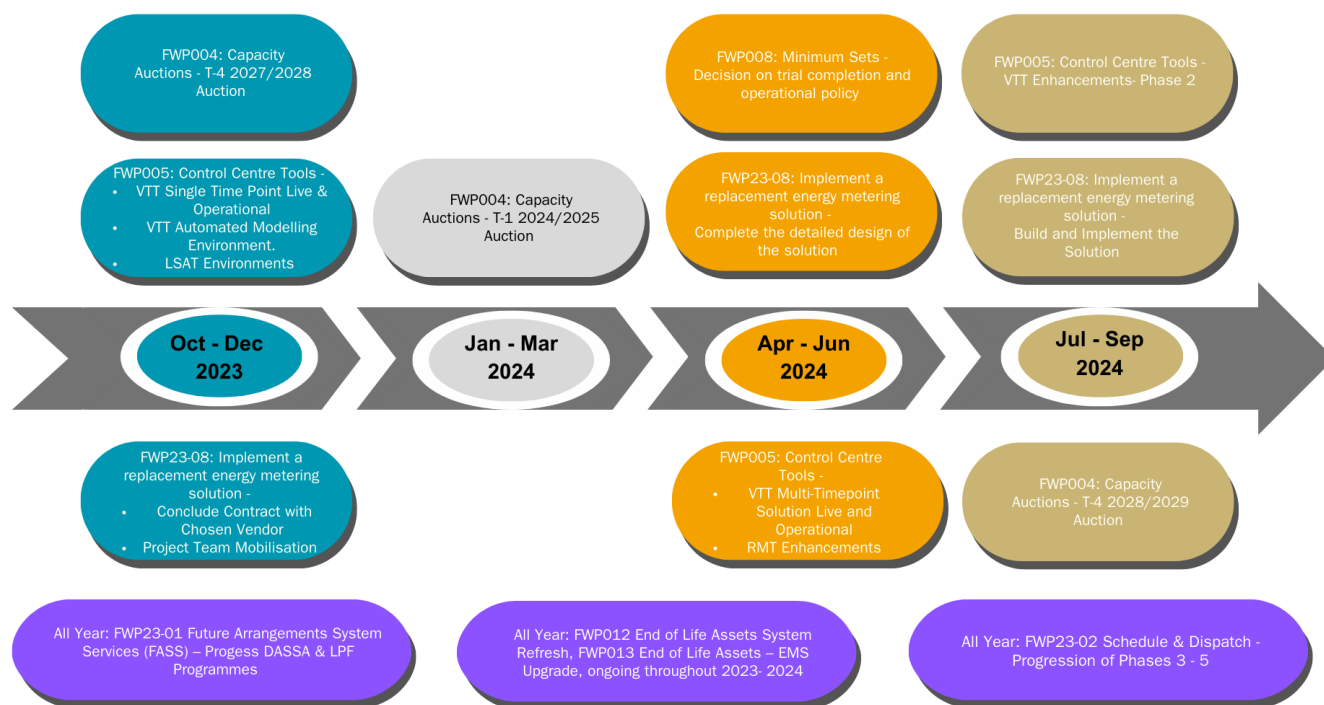


Figure 11 Summary of Role 1 Deliverables

The table below provides a full list of the projects and deliverables associated with Role 1 System Operation and Adequacy¹².

It is important to note that Future Arrangements for System Services (FASS) and the Scheduling and Dispatch Programme, in particular, have significant dependence on SEMC decisions. A delay in SEMC decisions could have implications on delivering on the scope detailed in this Forward Work Plan.

Table 2 Role 1 Deliverables

Project	Milestone	Performance Measure	Cost Scale	Timescale
FWP23-01 Future Arrangements System Services (FASS)	1. Publish FASS enduring daily auction/procurement design consultation paper. Subject to SEMC Decision on Phased Implementation Roadmap being published in September 2023	Performance for the period will be measured against the successful progression of deliverables above. Updates on progress made provided via Shaping Advisory Council meetings and	Very High	December 2023
	2. Publish FASS enduring daily auction/procurement design recommendations paper. Subject to SEMC Decision on Phased Implementation Roadmap being published in September 2023			March 2024

¹² Additional detail on these projects is provided in Appendix 1: SONI Deliverables for Role 1 System Operation and Adequacy

Project	Milestone	Performance Measure	Cost Scale	Timescale
	<p>3. Publish FASS Layered Procurement Framework design consultation paper. Subject to SEMC Decision on Phased Implementation Roadmap being published in September 2023</p> <p>4. Publish FASS Layered Procurement Framework design recommendations Paper. Subject to SEMC Decision on Phased Implementation Roadmap being published in September 2023</p> <p>5. Publish FASS enduring daily auction product review consultation paper. Subject to SEMC Decision on Phased Implementation Roadmap being published in September 2023</p> <p>6. Publish FASS enduring daily auction product review recommendations paper. Subject to SEMC Decision on Phased Implementation Roadmap being published in September 2023</p>	Stakeholder feedback recorded and actioned.		<p>March 2024</p> <p>June 2024</p> <p>June 2024</p> <p>September 2024</p>
FWP23-02 Scheduling and Dispatch	<p>A series of industry workshops are to be held monthly during Phase 3 & 4.</p> <p>Approval for Trading and Settlement Code, Capacity Market Code & Grid Code Mods for Scheduling and Dispatch Programme Tranche 1 Initiatives.</p> <p>Implement the people, process, and technology changes for the Scheduling & Dispatch Tranche 1 initiatives based on the agreed detailed design of the Scheduling & Dispatch solution.</p>	Successful achievement of the Phased activities	High	Timescales are dependent on funding approvals

Project	Milestone	Performance Measure	Cost Scale	Timescale
	Deliver Business and Industry Readiness for the Scheduling & Dispatch Tranche 1 initiatives.			
FWP004 Capacity Auctions Schedule	T-1 2024/2025 Capacity Auction – March 2024 T-4 2027/2028 Capacity Auction – October 2023 T-4 2028/2029 Capacity Auction – September 2024*	Annual Audit	Very High	March 2024 October 2023 September 2024* *Timetable to be finalised. Proposed month is an estimate.
FWP005 Control Centre Tools	Voltage Trajectory Tool (VTT) Single Time Point live and operational - Complete. Voltage Trajectory Tool (VTT) Multi-Timepoint Solution Live and Operational - Complete. Voltage Trajectory Tool (VTT) Enhancements - Phase 2 – Complete. Voltage Trajectory Tool (VTT) Automated Modelling Environment. Ramping Margin Tool (RMT) Enhancements - Complete. Look-Ahead Security Assessment Tool (LSAT) Environments - Complete.	Delivery of the Voltage Trajectory Tool enhancements.	Medium	November 2023 May 2024 September 2024 December 2023 May 2024 December 2023
FWP008: Minimum Sets	Decision on trial completion and operational policy	Completion of trial and associated analysis, along with updating Operational Policy where appropriate.	Low	May 2024
FWP012 End of Life Assets	System Refresh	Delivery of all activities	High	Ongoing throughout 2023 – 2024

Project	Milestone	Performance Measure	Cost Scale	Timescale
FWP013 EMS Upgrade	Energy Management System Midlife Upgrade Programme Phase 2	Delivery of all activities	High	Ongoing throughout 2023 - 2024
FWP23-08 Implement a replacement energy metering solution	<p>Conclude Contract with Chosen Vendor</p> <p>Project Team Mobilisation</p> <p>Complete the detailed design of the solution</p> <p>Build and Implement the Solution</p>	Successful completion of activities.	High	<p>November 2023</p> <p>December 2023</p> <p>May 2024</p> <p>September 2024</p>
FWP24-01: Introduction of NRAA	Publish the first Northern Ireland National Resource Adequacy Assessment (NRAA).	Delivery of Publication	Low	September 2024

Benefit of Deliverables

These deliverables will contribute towards the four SONI outcomes of decarbonisation, grid security, system wide costs and stakeholder satisfaction. The benefits are:



Decarbonisation

The activities set out above will combine to move Northern Ireland towards its decarbonisation targets. A key focus of our work is supporting the integration of new technologies on the system which will facilitate an increase in electricity from renewable sources. The commercial arrangements and level playing field for these essential new technologies will be developed through our Future Arrangements for System Services project¹³. Our work on Scheduling and Dispatch¹⁴ will also ensure that we are on the path to enable the requirements set out in the Clean Energy Package. These projects are important to set us on course to help achieve the targets of 80% electricity from renewable sources by 2030.



Grid Security is important for Northern Ireland. Our work to update our IT systems and control centre tools are key to operating a safe, secure and reliable Transmission System. The environment in which we are operating in is increasingly complex and challenging with the amount of electricity sourced from weather dependent non-synchronous sources. SONI is required to be a prudent operator and a number of our activities detailed above will facilitate greater grid security. Our

activities under FWP004 Capacity Auctions and FWP24-01 Introduction of NRAA, will enhance our planning of the system and strengthen the Grid Security outcome.



System Wide Costs are important for SONI, even more so in the current economic climate. When implemented, the Future Arrangements for System Services will increase competition between providers, ensuring that costs are minimised across all markets. Our work on Scheduling and Dispatch will ensure that we are able to make best use of the technologies available on the grid, putting downward pressure on prices. These initiatives will take more than one year to deliver, but the progress

made during 2023/24 will provide a foundation for future years. We will continue to take steps to minimise dispatch balancing costs and will report on the outturn of those when the assessment is completed.



SONI Service Quality

SONI has already planned a number of engagement activities over the period. We continue to improve the level of information provided to stakeholders and will provide an engagement timeline to set out our various communication plans for the period ahead for Role 1.

¹³ Please refer to Appendix 1, FWP23-01 Future Arrangements System Services

¹⁴ Please refer to Appendix 1, FWP23-02 Scheduling and Dispatch

Key Performance Indicators

Performance measures¹⁵ which pertain to SONI TSO Role 1 are summarised below.

Table 3 Role 1 Key Performance Indicators

Performance Measure	Target	2019 baseline	Commentary
System Non-Synchronous Penetration (SNSP)	80%	65%	As set out in SONI's operational policy roadmap ¹⁶ , the key operational policy change targeted for the coming year is a reduction in the all-island Minimum Number of Conventional Units constraint from 8 to 7. Further increases to the SNSP limit will require enhanced capabilities including system services provision to be incentivised through implementation of the Future Arrangements for System Services programme. The focus now in terms of SNSP is on planning and preparations to increase this target, for 2023 – 2024 we plan to increase the SNSP limit from 75% to 80%.
Imperfections Costs	Determined Annually Ex-Post	To be considered over the period	This will be determined for the December 2024 Performance Report as it requires the use of the plexos backcast model, and this information is not available at the date of preparing this plan.
Renewable Dispatch Down	10%	10.7%	Renewable Dispatch Down (%) is calculated on a monthly basis and published one month in arrears ¹⁷ . Annual figures are available one month following the end of the year.
System Frequency (%)	Within the range 50 Hz \pm 0.2 Hz for 98% of time	98% ¹⁸	To ensure that SONI manages the system frequency within Grid Code requirements.

¹⁵ A detailed description of all key performance indicators is provided in Appendix 5: SONI Performance Measures.

¹⁶ [Operational Policy Roadmap 2023 to 2030](#)

¹⁷ See link to monthly reports [TSO Responsibilities \(sem-o.com\)](#)

¹⁸ 2019 figure was 99.66%, over a 5-year period the system frequency was between 98.6% and 99.6% and as such the target is set at 50Hz \pm 0.2 Hz for 98% of the time.

Section 7: Role 2 Independent Expert

Overview of Role

The Independent Expert role covers our engagement activities and involves providing an expert voice for stakeholders and actively listening to their views and concerns. This role also includes activities such as our Annual Innovation Report, preparations for the next SONI Price Control, a Stakeholder Management Strategy and other publications.

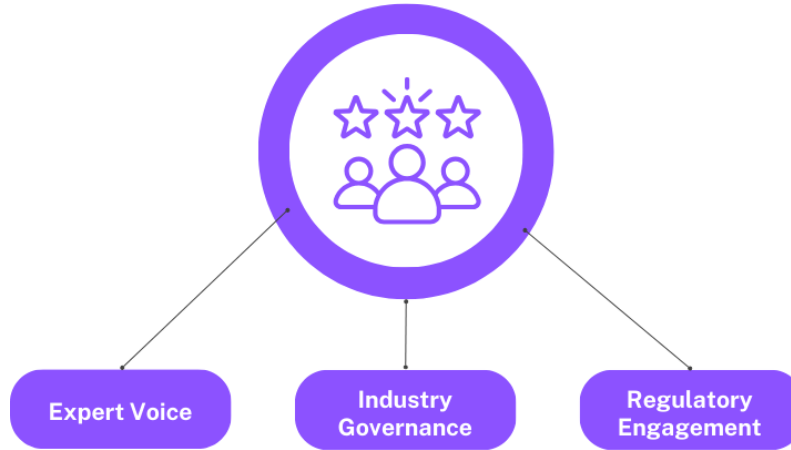


Figure 12 Role 2 Overview

Summary of Deliverables

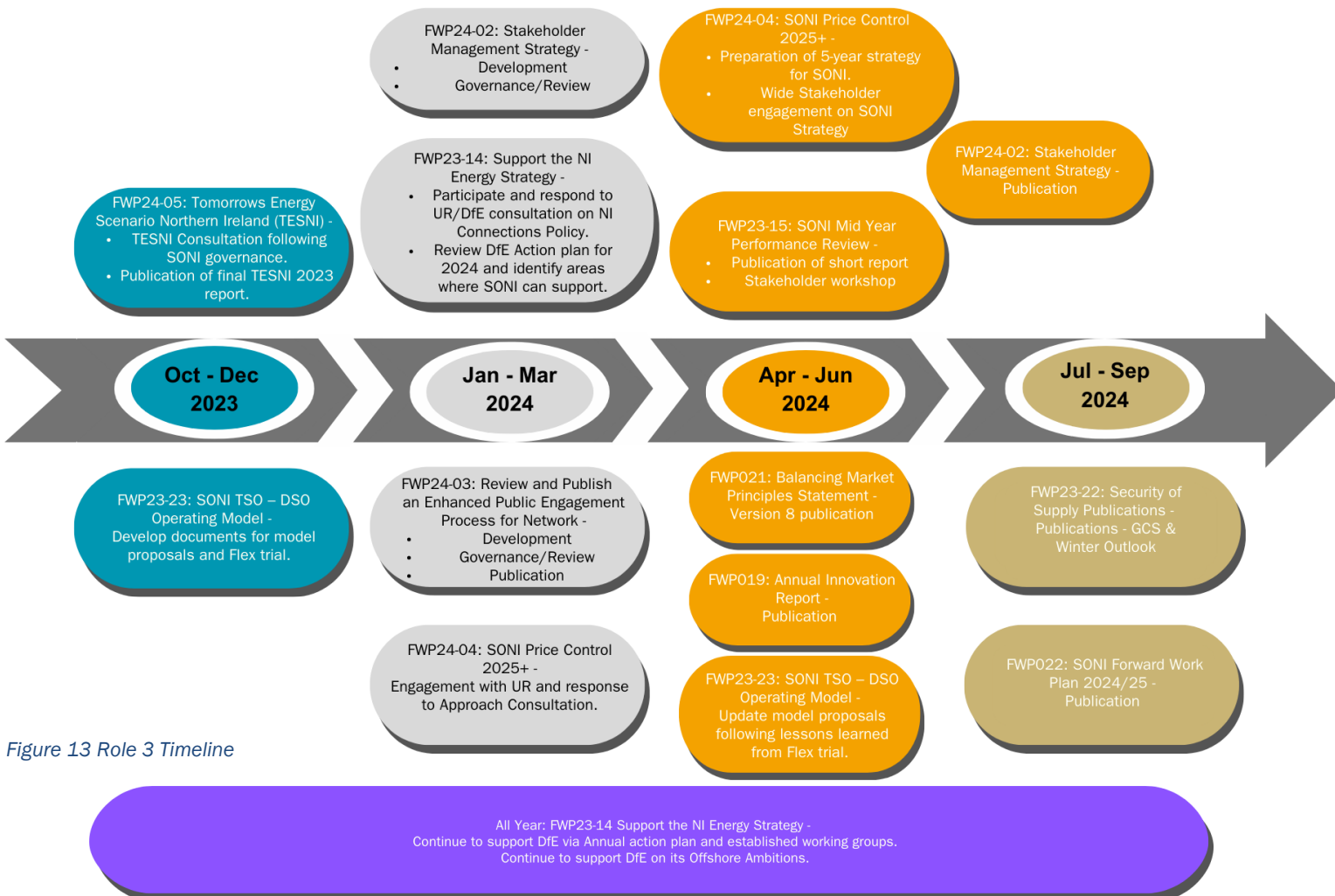


Figure 13 Role 3 Timeline

A table below has been included to provide a full list of the projects and deliverables associated with Role 2 Independent Expert.

Table 4 Role 2 Deliverables

Project	Milestone	Performance Measure	Cost Scale	Timescale
FWP24-03: Stakeholder Management Strategy	Development	Publication of Stakeholder Management Strategy within agreed timescales.	Low	January 2024
	Governance/Review			February 2024
	Publication			March 2024
FWP24-04: Review and Publish an Enhanced Public Engagement Process for Network Infrastructure	Development	Publication of enhanced public engagement process in a timely fashion. Stakeholder satisfaction in engagement process measured through structured feedback and endorsement of enhanced process.	Low	February 2024
	Governance/Review			March 2024
	Publication			April 2024
FWP23-14: Support the NI Energy Strategy	Continue to support DfE via Annual action plan and established working groups.	This programme of work will be monitored throughout the period.	Low	September 2024
	Continue to support DfE on its Offshore Ambitions.			September 2024
	Participate and respond to UR/DfE consultation on NI Connections Policy.			Dates to be set by UR/DfE – expected in 2024
	Review DfE Action plan for 2024 and identify areas where SONI can support.			Early 2024
FWP019: Annual Innovation Report	Timely publication of the Annual Innovation Report and stakeholder engagement to inform which projects should progress to UR funding request.	Timely publication of the Annual Innovation Report and stakeholder engagement to inform which	Low	April 2024

Project	Milestone	Performance Measure	Cost Scale	Timescale
		projects should progress to UR funding request.		
FWP23-15: SONI Mid-Year Performance Review	Mid-Year Update on SONI's 2023-2024 Performance	Successful SONI Mid-Year Review Workshop	Low	April 2024
	Mid-Year Update Workshop			May 2024
FWP022: Publish SONI's 2024/25 Forward Work Plan	Publication of SONI's Forward Work Plan for 2024-2025	The timely publication of the SONI Forward Work Plan	Low	September 2024
FWP021: Balancing Market Principles Statement	Update and consult on version 8 of the Balancing Market Principles Statement	Timely consultation process, feedback will be assessed on quality and quantity and the timely provision of the document to the UR for approval.	Low	June 2024
FWP23-22: Security of Supply Publications	Publication of materials associated with Security of Supply – All Island Generation Capacity Statement and Winter Outlook	Timely publications of material	Low	September 2024
FWP23-23: SONI TSO – DSO Operating Model	Develop documents for model proposals and Flex trial.	Successful achievement of deliverables.	Low	October 2023
	Update model proposals following lessons learned from Flex trial.			April 2024 (dependent on the end of the Flex trial)
FWP24-05: SONI Price Control 2025+	Engagement with UR and response to Approach Consultation.	This programme of work will be monitored throughout the period.	Low	December 2023 – February 2024
	Preparation of 5-year strategy for SONI.			April 2024

Project	Milestone	Performance Measure	Cost Scale	Timescale
	Wide Stakeholder engagement on SONI Strategy.			June 2024
FWP24-06: Tomorrows Energy Scenario Northern Ireland (TESNI)	TESNI Consultation.	Timely consultation process and assessment of feedback on both quality and quantity.	Low	October 2023
	Publication of final TESNI 2023 report.	The timely publication of the final TESNI 2023 report.		December 2023

Benefit of Deliverables

SONI has provided a description of the key benefits as they pertain to the four SONI outcomes, being decarbonisation, grid security, system wide costs and stakeholder satisfaction.



Decarbonisation

The decarbonisation outcome remains relevant throughout Role 2. We are progressing projects which support the NI Energy Strategy¹⁹. SONI's expert advice and information will facilitate developers of renewable generation and policy decision makers²⁰. Publication of Tomorrow's Energy Scenarios NI 2023 will outline a range of credible pathways for Northern Ireland's clean energy transition²¹.



Grid Security is important to consumers and our stakeholders. Grid security is considered across a number of factors within Role 2, for instance publication of Tomorrow's Energy Scenarios NI 2023 and Security of Supply Publications. In addition, the preparations for the next SONI Price Control is a key activity in terms of ensuring SONI has the capability and capacity to continue to ensure grid security

in a more complex energy system.



System Wide Costs is an equally important SONI outcome, especially in the current economic climate. The consultation and publication of the Annual Innovation Report²² will play an important role. This will seek stakeholder views on suggested projects to be progressed by SONI. These projects and the innovation process itself are of key importance when considering transmission constraint groups and how

we react to alleviate these, therefore creating customer savings as a result of these projects.



SONI Service Quality

SONI will seek stakeholder input to these deliverables, including the development of a Stakeholder Management Strategy²³, which will ensure a consistency in SONI's approach to engagement and ensure our stakeholders know and understand what they can expect from our organisation. A number of key activities will continue our step change in engagement, particularly the Review and Publishing of an Enhanced Public Engagement Process for Network Infrastructure²⁴.

¹⁹ Please refer to Appendix 2: SONI Deliverables for Role 2 Independent Expert, FWP23-14 Support the NI Energy Strategy for more detail.

²⁰ Please see Appendix 2, FWP23-12 Support the NI Energy Strategy for more information.

²¹ Please see Appendix 2, FWP24-06 Tomorrow's Energy Scenarios Northern Ireland (TESNI) for more detail.

²² Please refer to Appendix 2, FWP019 Annual Innovation Report for more detail

²³ Please see Appendix 2, FWP24-03 Stakeholder Management Strategy for more information.

²⁴ Please see Appendix 2, FWP24:04 Review and Publish an Enhanced Public Engagement Process for Network Infrastructure.

Key Performance Indicators

Performance measures²⁵ which pertain to SONI TSO Role 2 are summarised below.

Table 5 Role 2 Key Performance Indicators

Performance Measure	Target	2019 Baseline	Commentary
Timely delivery of publications and agreed programmes	100%		Where SONI has provided a date or range of dates for the publication of documents/reports or availability of materials for use, we may measure our performance, alongside other KPIs, as the “timely delivery” of the described deliverable.
Quality & Quantity of Feedback			<p>Over the 2022-23 period, SONI has been progressing a deliverable FWP23-12 Stakeholder Needs Assessment. This has been the first step in SONI moving forwards on a metric to consider stakeholder views and information.</p> <p>As this is currently in development, we are unable to provide historic trends or future based targets until we have concluded this programme in full. This project has provided us with vital insights into a range of areas including the views of stakeholders on the areas SONI should prioritise, their experience of engaging with us to date, and their future engagement needs.</p> <p>The findings of the Stakeholder Needs Assessment will be used to develop the Stakeholder Management Strategy ²⁶ and accompanying evaluation framework.</p>

²⁵ A detailed description of all key performance indicators is provided in the document, Appendix 5: SONI Performance Measures.

²⁶ Please see Appendix 2, FWP24-03 Stakeholder Management Strategy for more information.

Section 8: Role 3 System Planning

Overview of Role

SONI is independent of interests in the generation and supply of electricity, and therefore we are responsible for planning the configuration of the transmission system and obtaining all of the consents necessary for it. Role 3 covers SONI's activities in the System Planning area, our approach is set out in our three-part Grid Development Process.

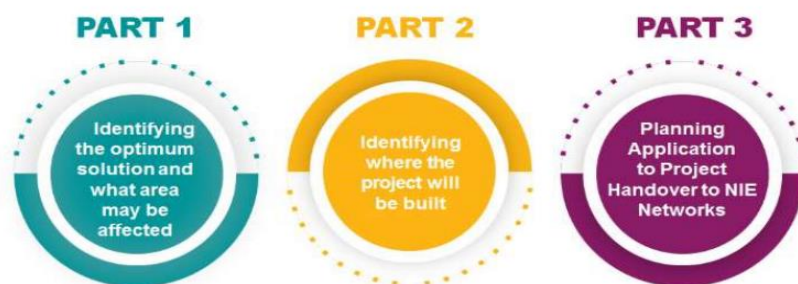


Figure 14 SONI's Three-Part Grid Development Process

Coordination with NIE Networks underpins this three-part Grid Development Process. We work every day with NIE Networks who own, build and maintain the grid transmission assets. We engage with NIE Networks in relation to the functional specification and design specification documents and on any associated options reports.

As demand and generation change, or as the transmission network becomes more interconnected with neighbouring transmission networks²⁷, the flow of electrical energy throughout the transmission network changes. To accommodate these changes in power flows it is necessary to modify or strengthen the transmission network to ensure performance and reliability levels are upheld. SONI and NIE Networks are obliged to develop an economic, efficient, and coordinated transmission system²⁸. NIE Networks is responsible for maintaining the transmission network in Northern Ireland, including replacing assets that have reached the end of their useful life.

²⁷ The European electric power transmission networks are interconnected, so as to be able to transmit energy from one jurisdiction to others.

²⁸ The Electricity (Northern Ireland) Order 1992, Article 12

Summary of Deliverables

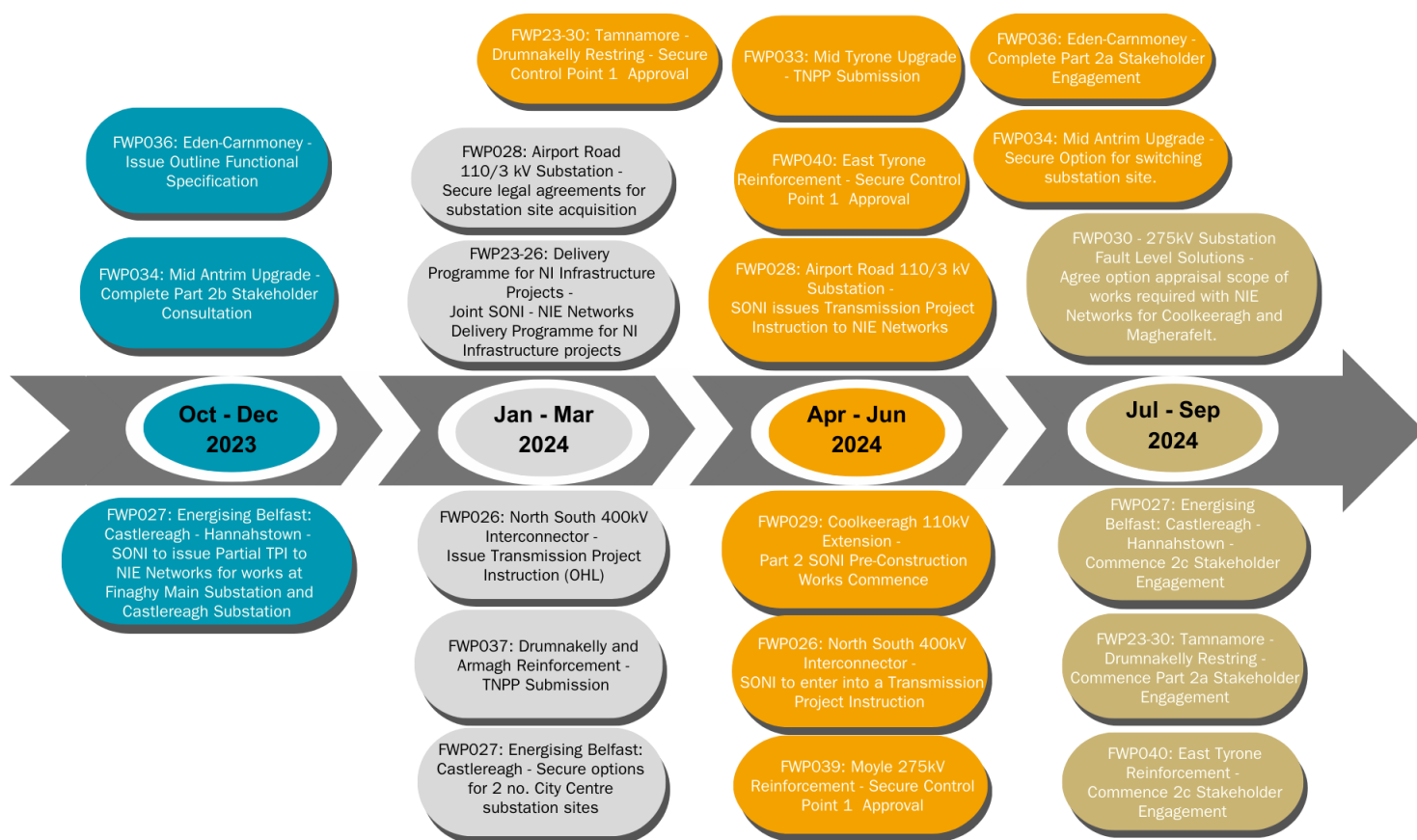


Figure 15 Role 3 Timeline

A full list of the projects and deliverables associated with Role 3 System Planning during 2023/24 are set out in the table below. SONI would emphasise that any TNPP submissions are dependent on timely receipt of information from NIE Networks.

Table 6 Role 3 Deliverables

Project	Milestone	Performance Measure	Cost Scale	Timescale
FWP027: Energising Belfast: Castlereagh – Hannahstown	Currently in Part 2		High	
	SONI issues Partial TPI to NIE Networks for works at Finaghy Main Substation and works at Castlereagh Substation.	Partial Transmission Project Instruction		December 2023
	It is necessary to issue a TPI for parts of this project that can and need to be completed earlier. After design and consents are achieved	Secure options to purchase two substation sites		March 2024
				July 2024

Project	Milestone	Performance Measure	Cost Scale	Timescale
	<p>for the new substations and other works further partial TPI's will be issued for that work. This will be captured in future FWP.</p> <p>Secure options to purchase two sites for substation developments</p> <p>Commence 2c Stakeholder Engagement</p>	2c Stakeholder Engagement commenced		
FWP026: North South 400kV Interconnector	<p>Currently in Part 3</p> <p>Issue Transmission Project Instruction (OHL)</p> <p>SONI to enter into a Transmission Project Agreement</p>	<p>Transmission Project Instruction Issued for OHL</p> <p>Transmission Project Agreement</p>	High	<p>March 2024</p> <p>June 2024</p>
FWP028: Airport Road Main 110/33 kV Substation	<p>Currently in Part 3</p> <p>Secure legal agreements for substation site acquisition</p> <p>SONI issues Transmission Project Instruction to NIE Networks</p>	<p>Landowner Agreement secured.</p> <p>Transmission Project Instruction issued to NIE Networks</p>	Medium	<p>January 2024</p> <p>June 2024</p>
FWP034: Mid Antrim Upgrade	<p>Currently in Part 2</p> <p>Complete Part 2b Stakeholder Consultation</p> <p>Secure Option for switching substation site.</p>	<p>Part 2b Stakeholder Consultation Completed</p> <p>Option for switching substation Site secured</p>	High	<p>October 2023</p> <p>May 2024</p>
FWP036: Eden – Carnmoney	<p>Currently in Part 2</p> <p>Issue Outline Functional Specification</p>	Outline Functional Specification issued to NIE Networks	High	<p>December 2023</p> <p>June 2024</p>

Project	Milestone	Performance Measure	Cost Scale	Timescale
	Complete Part 2a Stakeholder Engagement	Part 2a Stakeholder Consultation Completed		
FWP037: Drumnakelly and Armagh Reinforcement	Currently in Part 1 TNPP Submission	TNPP Submitted to UR	High	March 2024
FWP040: East Tyrone Reinforcement	Currently in Part 1 Secure Control Point 1 Approval ²⁹ Commence Part 2c Stakeholder Engagement	Control Point 1 SONI Approval 2c stakeholder engagement commenced	High	April 2024 September 2024
FWP033: Mid Tyrone Upgrade	Currently in Part 1 TNPP Submission	TNPP Submitted to UR	High	April 2024
FWP039: Moyle 275kV Reinforcement	Currently in Part 1 Secure Control Point 1 Approval	Control Point 1 SONI Approval	Medium	April 2024
FWP029: Coolkeeragh 110kV Extension	Currently in Part 1 Part 2 SONI Pre-Construction Works Commence	Part 1 Site Investigation completed.	Medium	May 2024
FWP23-30: Tamnamore – Drumnakelly Restring	Currently in Part 1 Secure Control Point 1 Approval Commence 2a Stakeholder Engagement	Control Point 1 SONI Approval secured. 2a stakeholder engagement commenced	High	April 2024 August 2024
FWP030: 275kV Substation Fault Level Solutions	Agree option appraisal scope of works required with NIE Networks for Coolkeeragh and Magherafelt.	Option appraisal scope of works for Coolkeeragh and Magherafelt	Low	September 2024

²⁹ Control Point 1 is the internal governance to approve the confirmation of need, the appraisal of the options and the selection of the preferred option within Part 1 of the SONI Process to Develop the Grid. It also includes approval of the funding and timeline to progress preconstruction works to outline design and achieve consents.

Project	Milestone	Performance Measure	Cost Scale	Timescale
		agreed with NIE Networks.		
FWP23-26 Delivery Programme for NI Infrastructure Projects	Joint SONI- NIE Networks Delivery Programme for NI Infrastructure projects	Joint SONI- NIE Networks Delivery Programme for NI Infrastructure projects communicated externally	Low	January 2024

Benefit of Deliverables



Decarbonisation

As indicated above, the mitigation of risk around facilitating the connection of increased renewable generation to the Transmission System is integral to allowing a smoother connection offer process and reduces the challenges SONI, NIE Networks and potential developers face during the construction process. Many of the grid development projects listed here are essential to meet our renewable targets. In particular, the Mid Antrim Upgrade Project will increase the output of renewable generation. Currently, there is a bottleneck on the grid in the Mid-Antrim area and there is an inability to transmit all the renewable energy generated in the North and West, to urban centres such as Ballymena, Antrim, and Greater Belfast. The Mid Antrim Upgrade is a planned solution to this problem.



Grid Security

Increased interconnection between transmission networks results in a larger energy market. With increased market integration there is greater competition and the potential for prices to be reduced. The Moyle export capacity project³⁰ will enable higher flows out of Northern Ireland, increasing options for system stability at high levels of renewable generation. In addition, the Energising Belfast project is essential for long term stable and secure supplies of electricity in the greater Belfast area.



System-Wide Costs

The integration of RES and other forms of low carbon generation significantly increases the power exchange opportunities across the region. Our three-part process is designed to ensure the most economical solution to each grid need identified, thus ensuring best value investment for customers. The process checkpoints ensure that any projects that become unnecessary are stopped in a timely way.



SONI Service Quality

Engagement with all parties is important so that SONI are aware of the wider views of stakeholders. This is captured during the various stages of engagement during our three-part process, which ensures that all relevant parties are consulted with at the appropriate stage. With improvements in data and digitalisation, SONI is now able to use a more targeted approach to stakeholder engagement within Role 3. We plan to use geotargeted locations for our online messaging to bring awareness to communities that will be impacted by some transmission projects.

³⁰ Please refer to Appendix 3: SONI Deliverables for Role 3 System Planning, FWP039 Moyle Reinforcement Project.

KPIs

Performance measures³¹ which pertain to SONI TSO role 3 are summarised below.

Table 7 Role 3 Key Performance Indicators

Performance Measure	Target	2019 Baseline	Commentary
Timely delivery of publications and agreed programmes	100%		Where SONI has provided a date or range of dates for the publication/submission of documents/reports or availability of materials for use, we may measure our performance, alongside other KPIs, as the “timely delivery” of the described deliverable.
Quality & Quantity of Feedback			<p>Over the 2022-23 period, SONI has been progressing a deliverable FWP23-12 Stakeholder Needs Assessment. This has been the first step in SONI moving forwards on a KPI to consider stakeholder views and information.</p> <p>As this is currently in development, we are unable to provide historic trends or future based targets until we have concluded this programme in full. This project has provided us with vital insights into a range of areas including the views of stakeholders on the areas SONI should prioritise, their experience of engaging with us to date, and their future engagement needs.</p> <p>The findings of the Stakeholder Needs Assessment will be used to develop the Stakeholder Management Strategy ³² and accompanying evaluation framework.</p>

³¹ A detailed description of all key performance indicators is provided in the document, Appendix 5: SONI Performance Measures

³² Please see Appendix 2, FWP24-03 Stakeholder Management Strategy for more information.

Section 9: Role 4 Commercial Interface

Overview of Role

Role 4 covers SONI’s activities as a Commercial Interface. Role 4 primarily focuses on our interactions with customers through the Connection Offer Process, engaging with NIE Networks through associated Construction Offers and Preparation of Connection Agreements and Transmission Use of System Agreements. It also looks at the Moyle Interconnector and the contractual arrangements we facilitate for connectees.

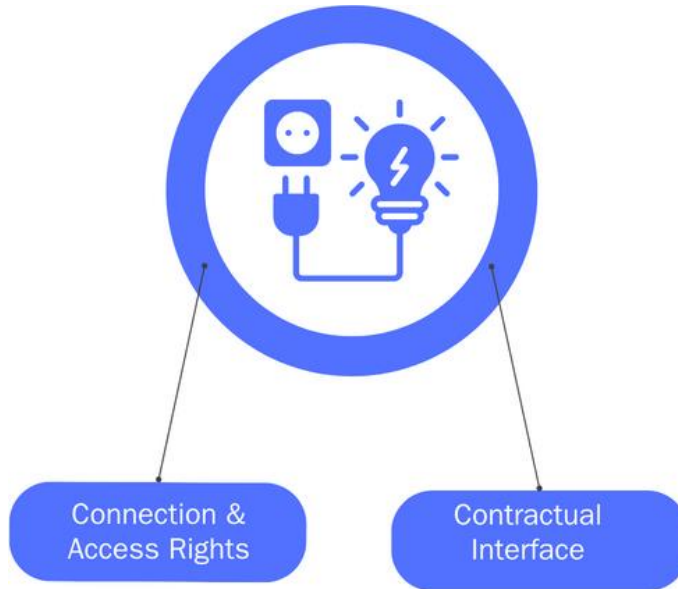


Figure 16 Role 4 Overview

Summary of Deliverables

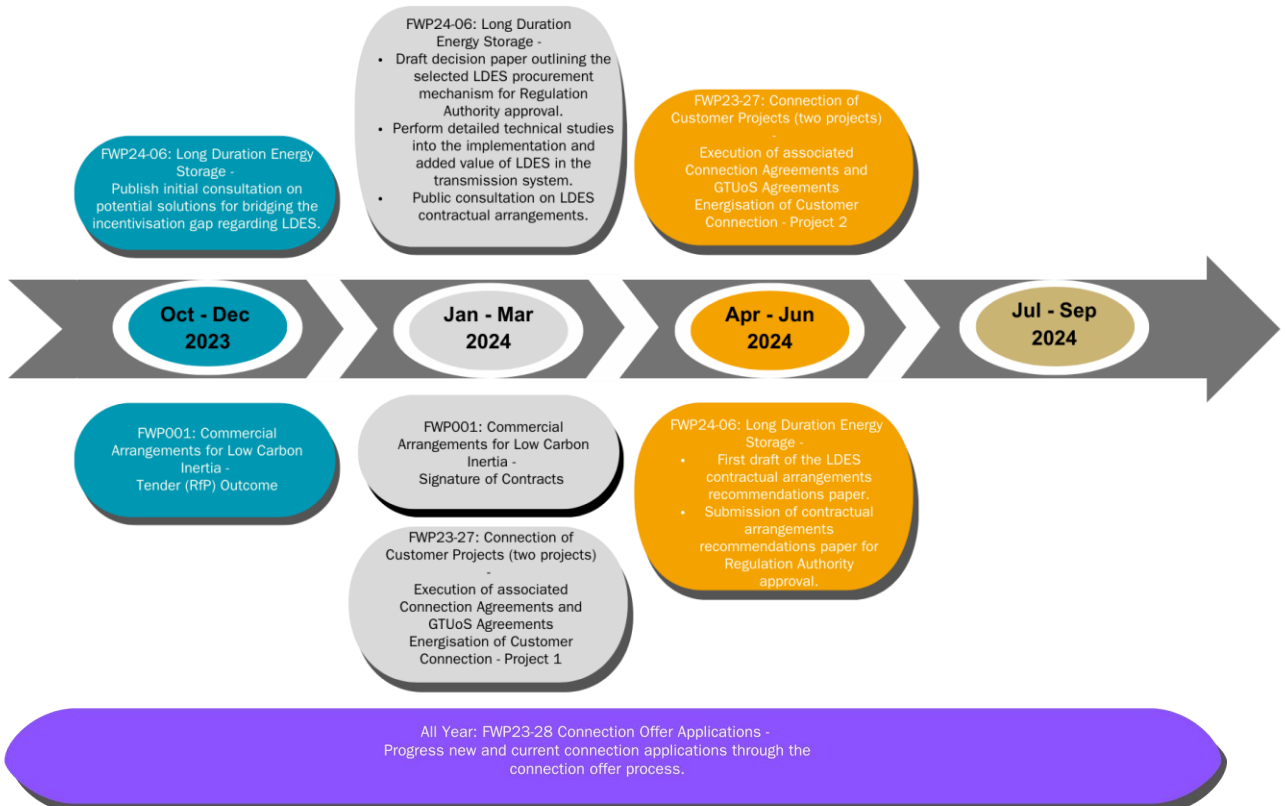


Figure 17 Role 4 Timeline

The table below provides a full list of the projects and deliverables associated with Role 4 Commercial Interface.

Table 8 Role 4 Deliverables

Project	Milestone	Performance Measure	Cost Scale	Timescale
FWP23-27 Connection of Customer Projects (two projects)	Execution of associated Connection Agreements and GTUoS Agreements Energisation of Customer Connection	Number of Project Energisations	Low	February 2024 and April 2024
FWP23-28 Current Applications in the Connection Offer Process	Progress new and current connection applications through the connection offer process	Connection Offer Issued in accordance with Condition 25	Low	Throughout 2023/24
FWP001 Commercial Arrangements for Low Carbon Inertia	Tender (RfP) Outcome	Successful completion of Tender Process	Very High	December 2023
	Signature of Contracts			January 2024
FWP24-06 Long Duration Energy Storage	Publish initial consultation on potential solutions for bridging the incentivisation gap regarding LDES.	Timely delivery of the recommendations paper for Regulatory Authority approval.	Medium	October 2023
	Draft decision paper outlining the selected LDES procurement mechanism for Regulation Authority approval.			January 2024 (depending on the scale of responses)
	Perform detailed technical studies into the implementation and added value of LDES in the transmission system.			March 2024
	Public consultation on LDES contractual arrangements.			February 2024
	First draft of the LDES contractual arrangements recommendations paper.			April 2024
	Submission of contractual arrangements recommendations paper for Regulatory approval.			June 2024

Benefit of Deliverables

The deliverables identified in the table above highlights the work that will be conducted during the specified timeframes in order to facilitate future connection to the Transmission System.



Decarbonisation

This role is a key part of SONI acting as an enabler to facilitate new technologies connecting to the network and increasing the number of renewable technologies in order to meet the targets as set by the Department for the Economy in the Northern Ireland Energy Strategy. Initiatives such as the Commercial Arrangements for Low Carbon Inertia and Long Duration Energy Storage are key to progressing this outcome.



Grid Security

As the facilitation of renewable generation continues, SONI has identified a number of initiatives that need to be progressed in preparation of 2030. Key initiatives such as the Commercial Arrangements for Low Carbon Inertia and Long Duration Energy Storage will help enhance and future proof the security of the system.



solutions

System Wide Costs

SONI considers that the work we are undertaking in relation to the procurement of new services and the investigation into the Long duration Storage and the potential contractual arrangements demonstrates that we are taking a system wide approach of to the costs associated with network, operations and market based



SONI Service Quality

Engagement and open, transparent communication will play an important role in this process. We consider the projects we are progressing and the detailed collaboration these will involve with all stakeholders demonstrates that we are endeavouring to meet this outcome.

Key Performance Indicators

Considering the deliverables above, SONI have established the key performance indicators below in order to measure our success during 2023-2024 for the activities in Role 4. These have been identified for each of the deliverables above and expanded upon below³³.

Table 9 Role 4 Key Performance Indicators

Performance Measure	Target	2019 Baseline	Commentary
Timely delivery of publications and agreed programmes	100%		Where SONI has provided a date or range of dates for the publication/submission of documents/reports or availability of materials for use, we may measure our performance, alongside other KPIs, as the “timely delivery” of the described deliverable.
Quality & Quantity of Feedback			<p>Over the 2022-23 period, SONI has been progressing a deliverable FWP23-12 Stakeholder Needs Assessment. This has been the first step in SONI moving forwards on a KPI to consider stakeholder views and information.</p> <p>As this is currently in development, we are unable to provide historic trends or future based targets until we have concluded this programme in full. This project has provided us with vital insights into a range of areas including the views of stakeholders on the areas SONI should prioritise, their experience of engaging with us to date, and their future engagement needs.</p> <p>The findings of the Stakeholder Needs Assessment will be used to develop the Stakeholder Management Strategy ³⁴ and accompanying evaluation framework.</p>

³³ Further information is also provided in the Appendix 5: SONI Performance Measures.

³⁴ Please see Appendix 2, FWP24-03 Stakeholder Management Strategy for more information.