SONI Annual Performance Report

2022 – 23

Appendix 3

Role 3 System Planning

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Role 3 System Planning – Assessment Criteria

SONI's performance will be assessed by an independent panel and the UR on the following criteria:

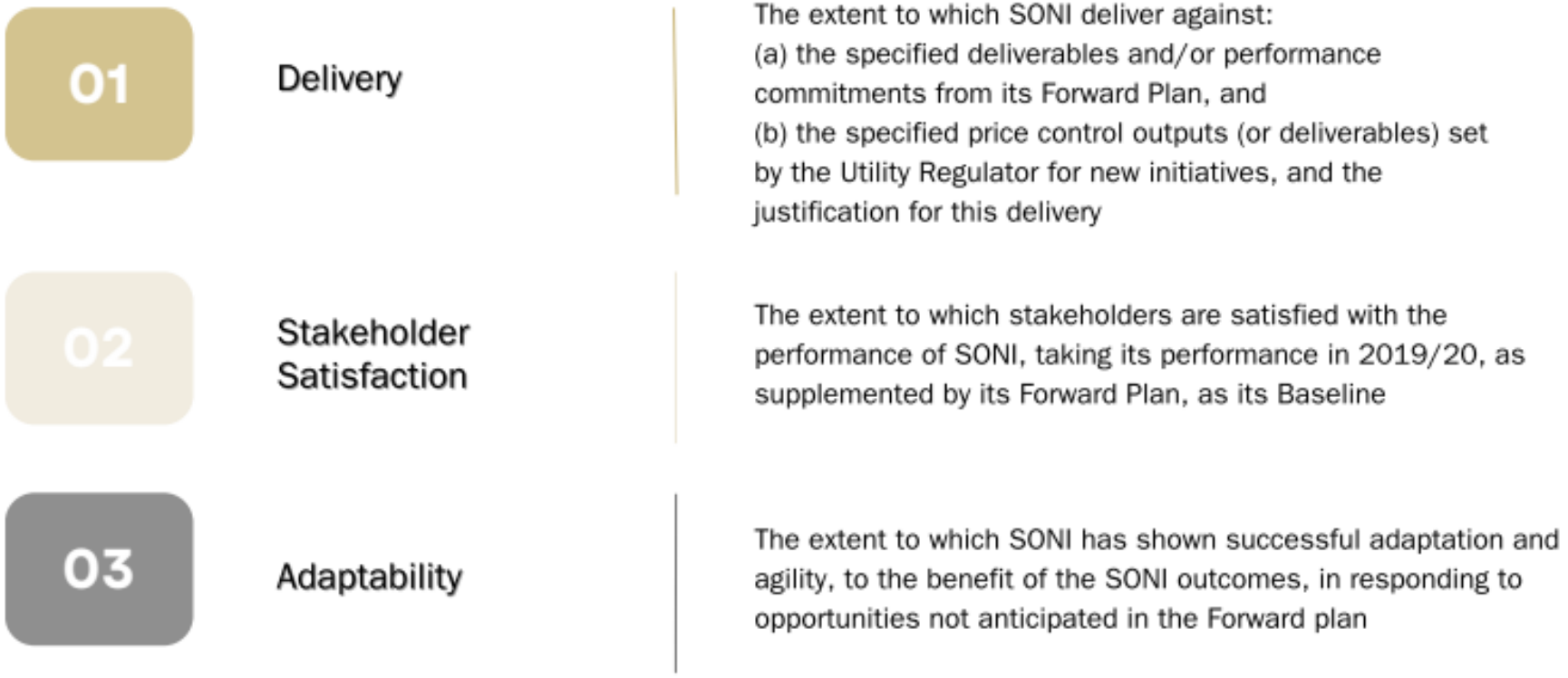


Figure 1 Assessment Criteria

For consistency and based on the advice contained in the UR's Evaluative Performance Framework Guidance document[1], we have applied the above criteria to the SONI Performance Report.

[1] epf-guidance.pdf (uregni.gov.uk)

Role 3 System Planning – Plan Delivery

Figure 2 summarises the position at end of September 2023 for each of the projects included in the 2022-23 SONI Forward Work Plan.

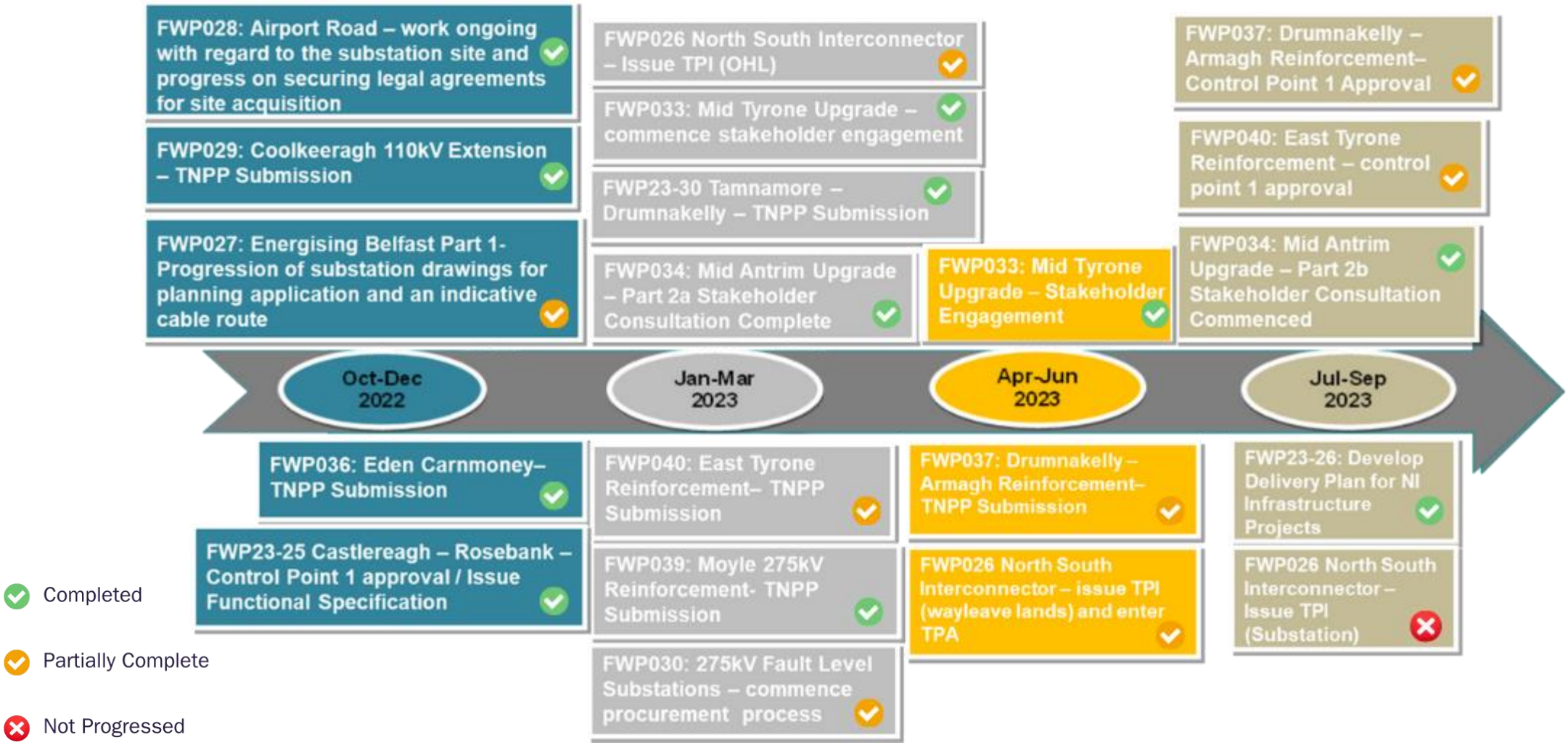
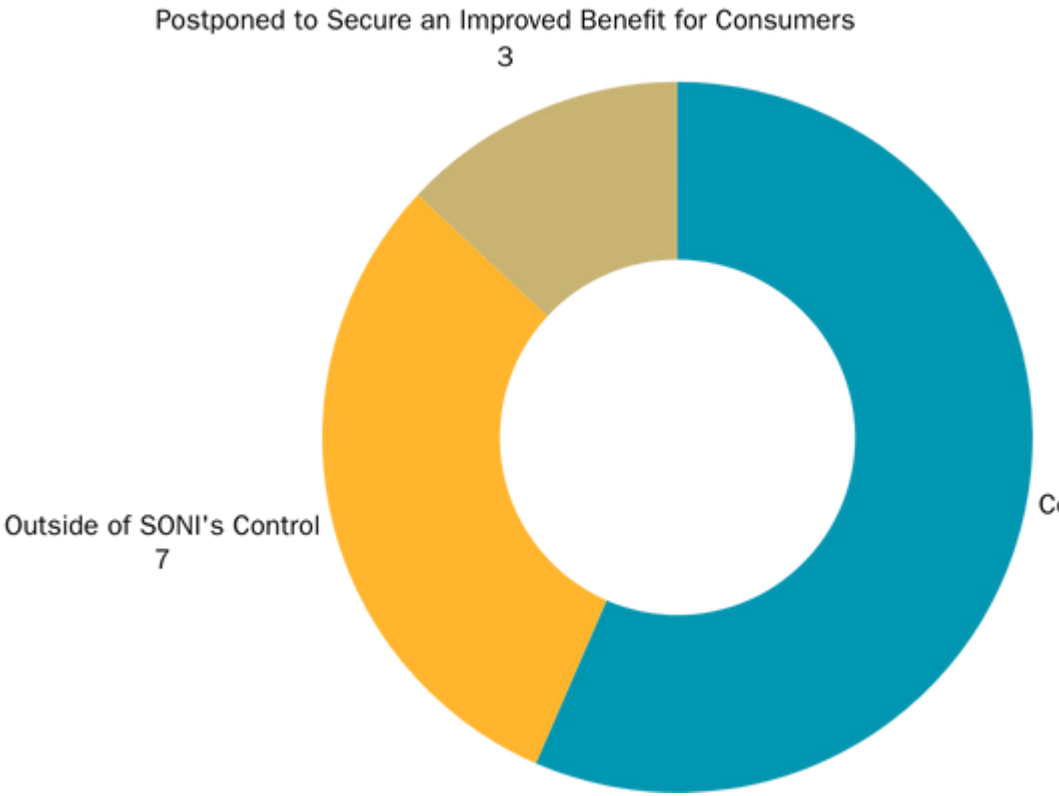


Figure 2 Overview of Projects

Summary of Role 3 Deliverables



23 Milestones:

- **13** Completed
- **7** Partially Completed
- **3** Not Progressed yet

Of the 10 remaining milestones which are not complete:

- 7 are delayed for reasons **outside of SONI's control**
- 3 are postponed to secure an **improved outcome for consumers**

Figure 3 Role 3 Delivery Pie Chart

The tables below provide a complete view of the projects presented within the Forward Work Plan across Role 3 System Planning.

PROJECT ID	PROJECT NAME	MILESTONE	STATUS
FWP027	Energising Belfast Part 1	Review and approve NIE Networks Design specification for the Castlereagh Tx4 works	
FWP027	Energising Belfast Part 1	Review and approve NIE Networks Design Specification for the works at Finaghy Main	
FWP027	Energising Belfast Part 1	Partial TPI and TPA	
FWP036	Eden Carnmoney	TNPP Submission	
FWP028	Airport Road	Commence compulsory Landowner Agreements to finalise site and cable routing	
FWP029	Coolkeeragh 110kV extension	TNPP Submission	
FWP23-25	Castlereagh - Rosebank	Timely issue of functional specification.	
FWP026	North South I/C	Issue Transmission Project Instruction (OHL)	
FWP034	Mid Antrim upgrade	Part 2a Stakeholder Consultation	
FWP040	East Tyrone Reinforcement	TNPP Submission	
FWP033	Mid Tyrone Upgrade	Stakeholder Engagement	

Figure 4.1 Deliverables Part 1

PROJECT ID	PROJECT NAME	MILESTONE	STATUS
FWP039	Moyle 275kV Reinforcement	TNPP Submission	
FWP029	Coolkeeragh 110kV extension	Progress to part 2 of the 3 part process - Control point 1 approval	
FWP030	275kV Substation Fault Level Solutions	Commence progression of procurement and award of contract with substation design consultant	
FWP23-30	Tamnamore - Drumnakelly Restring	TNPP Submission	
FWP026	North South I/C	Issue Transmission Project Instruction (wayleave lands)	
FWP026	North South I/C	SONI to issue enter into a TPA	
FWP037	Drumnakelly - Armagh Reinforcement	TNPP Submission	
FWP026	North South I/C	Issue Transmission Project Instruction (substation)	
FWP034	Mid Antrim upgrade	Part 2b Stakeholder Consultation	
FWP037	Drumnakelly - Armagh Reinforcement	Control Point 1 Approval	
FWP040	East Tyrone Reinforcement	Control Point 1 Approval	
FWP23-26	Delivery Plan for NI Infrastructure Projects	Development of a delivery plan for all NI Infrastructure Projects and communicate externally	

Figure 4.2 Deliverables Part 2

Cost Scale

Based on feedback on the 2022/23 forward workplan, SONI has created a Cost Scale in order to assist the audience in understanding the scale and/or importance of a project, and 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 said project. We have applied the cost scale to the projects listed under this Role.

This scale applied is detailed below:

Table 1 Cost Scale

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

Key Areas of Focus

In the 2022/23 Forward Work Plan, SONI highlighted our key areas of focus for the period, which include strategic projects that SONI deems to be of utmost importance for both SONI and Northern Ireland consumers. These projects are highlighted throughout this document and delivery of these areas of work is summarised below.

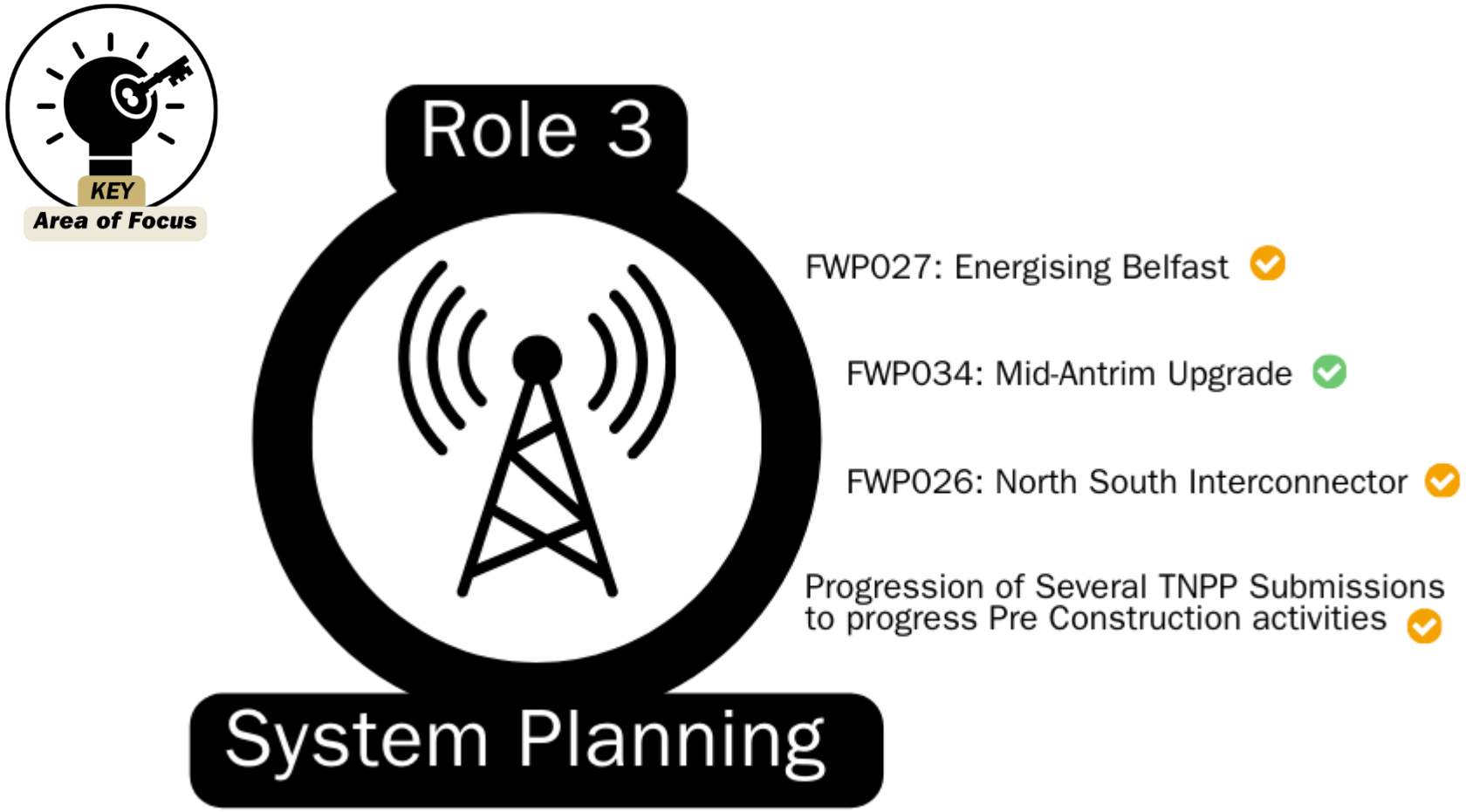


Figure 5 Role 3 Key Areas of Focus

Deliverables

Table 2 FWP027: Energising Belfast Project Part 1: Castlereagh – Hannahstown

Deliverable	FWP027: Energising Belfast Project Part 1: Castlereagh – Hannahstown
Description of Activities	This 'Energising Belfast' project, formerly known as Part 1 of the Belfast Metropolitan Redevelopment Project (Castlereagh – Hannahstown 110kV reinforcement). SONI received approval for the Transmission Network Preconstruction Project (TNPP) submission in June 2021. Since this the project has entered into Part 2 of the Grid Development Process. Planned activities for the future include: 1. SONI to review and approve NIE Networks Design specification for the Castlereagh Tx4 works in **October 2022**. This should progress to construction in **December 2022** with an estimate for completion of energisation and commissioning of Tx4 in **June/July 2024**. 2. SONI to review and approve NIE Networks Design Specification for the works at Finaghy Main (SONI issued the Functional Specification to NIE Networks in March 2022). This is expected to complete by **November 2022**. 3. SONI to issue Transmission Project Instructions to NIE Networks and enter into a Transmission Project Agreement with NIE Networks for the works associated with Castlereagh Main and Finaghy Main. This is expected by **December 2022**. 4. SONI to agree an outage plan with NIE Networks in order to carry out the works required across the entire project. This will be completed from 2023 to 2026, with energisation targeted by **June/July 2027**. The above detail provides an estimated timeline for the project overall. Over the period of this plan the main activity will be the progression of set of substation drawings for the planning application and an indicative cable route
Delivery	**Position as at 30 September 2023** Part 1 - **Complete**
	Part 2 – **Complete**
	Part 3 – **Delayed**
Date Revision	**Delayed for reasons outside of SONI's control:** All three milestones are sequentially linked. Once SONI issue the Functional Specification, NIE Networks complete and issue the Design Specification for SONI's review. The Functional Specifications for both elements of the project were issued to NIE Networks in February 2022. This allowed an 8 month period for issue of the Design Specification. During this period, NIE Networks and SONI continued technical discussions to further develop the optimum design as the original design assumption at Finaghy Substation was found not to be feasible and an alternative was agreed. Therefore, SONI were required to provide updated Functional Specifications. NIE Networks then continued work on the Design Specifications which were issued in June 2023. As a result of the delay caused by the need to redesign, the Partial TPI and TPA milestone, which was originally December 2022, has been revised to December 2023.
Stakeholder Satisfaction/ Engagement	The first phase of the official stakeholder engagement commenced on 11th October 2022 with a launch event held in Belfast and attended by key stakeholders. This was the official opening of the consultation period which remained open until 25th November 2022. Throughout this consultation period, SONI completed two separate drop-in public information events, as well as several direct engagements with interest groups, council officials and elected representatives. In line with best practice, each consultation event hosted by SONI had an open invitation and was advertised through the local press. A campaign of social media activity on Twitter and LinkedIn also shared information on the project, and directed people to SONI's Consultation Portal, where feedback could be submitted.

	SONI also established a dedicated webpage[2] containing information about the project, distributed copies of advertisements containing details of each event in high footfall areas and made a dedicated email address and relevant contact details publicly available. As well as hosting the public events, SONI completed engagement with representatives of each council area affected including the Chief Executive, BCC Climate commission, BCC Resilience and Sustainability Board, Federation of Small Businesses, Belfast Chamber, Belfast Harbour Commissioner and Translink. Engagement with the parties in close proximity to the development areas e.g. Belfast Harbour Commissioners has been ongoing throughout the year. During the consultation period, SONI also met with MPs and MLAs of the affected areas and the relevant statutory authorities e.g. PSNI, Planning, DfI etc. For full detail on what level of consultation has taken place on this project, please see a detailed engagement report available on the SONI website. https://www.soni.ltd.uk/media/documents/Energising-Belfast-Part-2a-engagement-summary-report-Gravis.pdf
Adaptability	This project is still at an early stage where potential substation sites have been identified and negotiations with the landowners are ongoing. There have been many challenges with identifying suitable sites for a substation within a city centre where land is high value and zoned for other development. In an attempt to identify suitable sites, SONI have contacted major landowners such as the Belfast Harbour Commissioner, Department for Infrastructure and Belfast City Council to discuss the project and development options. Due to the high value of the land and given the bespoke nature of the sites required, LPS have been engaged as lead negotiators on these high value sites which aims to streamline the negotiation process and increase the rate of success in order to avoid vesting proceedings. As well as the issues surrounding identifying suitable substation sites, identifying a suitable cable route within the city centre while attempting to minimise disruption is difficult, and the road network comprises of numerous Special Engineering Difficulties (SPEDs) (e.g. overpasses and bridges). In an attempt to avoid these constraints, SONI have been engaging with Translink as a major landowner in the area, hoping to design a section of the cable route within their privately owned lands in order to minimise SPEDs. Discussions with Translink on this are ongoing. NIE Networks have also employed the services of a third party cable designer who specialises in city centre works.
Cost Scale	High

[2] The Project (soni.ltd.uk)

Table 3 FWP036: Eden – Carnmoney

Deliverable	FWP036: Eden – Carnmoney
Description of Activities	This project (Eden – Carnmoney 110kV Circuit Uprate / Reconfiguration) forms part 2 of the previously named Belfast Metropolitan Project. The existing tower line is due for refurbishment due to the condition of the assets. Upcoming activities over the period include the preparation and submission of a TNPP for the UR's approval
Delivery	Position as at 30 September 2023 - Complete
Date Revision	With Forward Work Plan due date of **November,** this TNPP was submitted shortly after, in **December 2022**. Previously it was intended to bring forward two options to TNPP approval (one option retaining and refurbishing an overhead line in Carrickfergus, one option replacing it with underground cable). However new housing development taking place in Carrickfergus in 2022 led to a change in access to existing assets, which meant that one of the options (retention of the overhead line) was no longer possible. This change slightly delayed TNPP submission but will save significant time in the preconstruction phase.
Stakeholder Satisfaction/ Engagement	Stakeholder engagement was carried out on this project in 2021. This highlighted the risk (since transpired) of new development making access to towers and overhead lines difficult. Stakeholders are pleased with the proposal to replace overhead line with underground cable in urban areas. Stakeholder engagement has been critical to the development of a preferred option for this project. SONI also built on learning from previous projects (particularly Energising Belfast) in the design of the preferred option. The preferred solution will remove overhead lines from residential areas, as well as providing long-term security of supply to the Carnmoney area.
Adaptability	As mentioned above, new information arising from both the stakeholder engagement and then new developments in late 2022 led to a change in the options being brought forward from one down to a single preferred option. Previously it had been determined that some measure of preconstruction development of both options would be necessary to make a decision. Once new information came to light this was quickly incorporated into the cost-benefit analysis and changed the TNPP submission. This will deliver cost and time savings over the life of the project.
Cost Scale	High

Table 4 FWP026: North South 400kV Interconnector

Deliverable	FWP026: North South 400kV Interconnector
Description of Activities	In the SONI Forward Work Plan for 2021-2022 SONI was continuing work for land access. The key activities planned for the period include: 1. SONI to issue a Transmission Project Instruction (TPI) to NIE Networks for construction of Overhead line that have easements secured. This is targeted to complete by **March 2023**. 2. SONI to issue a TPI to NIE Networks for wayleave lands. This is targeted to complete by **June 2023**. 3. SONI to issue TPI for substation by **September 2023**, this is later than Overhead line and post TPA due to the phasing in procurement for the substation contractor. 4. SONI will enter into a Transmission Project Agreement with NIE Networks in **June 2023***. The North South 400kV Interconnector is estimated to be operational in 2026. *Item 4 is also dependent on ESB Networks progressing to Project Agreement in ROI. 
Delivery	**Position as of 30 September 2023:** Part 1 - Issue Transmission Project Instruction (OHL) – **In Progress** - Rescheduled until March 2024
	Part 2 - Issue Transmission Project Instruction (wayleave lands) - **In Progress** – Rescheduled to March 2024
	Part 3 - SONI to issue enter into a TPA – **Rescheduled** to December 2024
	Part 4 - Issue Transmission Project Instruction (substation) – **Rescheduled** to June 2024
Date Revision	In the SONI Forward Work Plan for 2022-2023, SONI was continuing work to secure land access. This is taking longer than anticipated as the Department for Economy are continuing to complete the Necessary Wayleave Process for outstanding landowners. Reflecting this external dependency, the key activities planned for the upcoming period include: 1. SONI to issue a Transmission Project Instruction (TPI) to NIE Networks for construction of Overhead line that have easements and wayleaves secured. This is targeted to be complete by **March 2024**. 2. SONI to prepare TPI for substation by **December 2024**, this is later than Overhead line and post TPA due to the phasing in procurement for the substation contractor. 3. SONI will enter into a Transmission Project Agreement with NIE Networks in **June 2024***. The North South 400kV Interconnector is estimated to be operational in 2027. *Item 3 is also dependent on ESB Networks progressing to Project Agreement in Ireland.
Stakeholder Satisfaction/ Engagement	All 160 landowners impacted by the proposed overhead line have been engaged with by SONI on at least 3 occasions over the last two years with over 50% agreeing to a voluntary easement. In parallel, there was ongoing political and key stakeholder engagement.
Adaptability	Some of the planning conditions in relation to the substation were executed earlier to facilitate the procurement and design process. Landowner compensation was increased on two occasions following approval by the Utility Regulator to align with rising land values and to garner more voluntary agreements. Necessary wayleave process was automated to manage large volume of applications more efficiently.
Cost Scale	High

Table 5 FWP028: Airport Road Main 110/33 kV Substation

Deliverable	FWP028: Airport Road Main 110/33 kV Substation
Description of Activities	It is planned to construct a new 110/33 kV substation in the Belfast Harbour Estate, close to the existing Airport Road 33/6.6 kV substation. The substation will be connected to the existing Rosebank substation via the existing 110 kV tower line (currently operated at 33 kV) from Rosebank to Sydenham Road. During the period 2021-2022, SONI continued to progress the substation site and securing legal agreements for the site acquisition. Issues have arisen over the past year corresponding to the legal agreements and as such these have impacted the timeline. SONI has provided the key activities for the period below, which are dependent on securing the legal agreements for the site. SONI will continue towards finalisation of the landowner agreements. The project is planned for energisation estimated in 2024/25.
Delivery	Position as of 30 September 2023 - Complete
Date Revision	There are a number of third-party stakeholders involved with securing the proposed landowner consents and agreements. Since this milestone was populated prior to September 2022, a change of approach was adopted given one of the key stakeholders opened communications and advised they would proceed with voluntarily signing legal agreements for the proposed 33kV cable routing therefore the need for compulsory easements was no longer required, at this stage.
Stakeholder Satisfaction/ Engagement	Stakeholder engagement continued throughout the course of the 2022/2023 period. There are a number of key stakeholders attributed to this project. In terms of the 33kV cable routing: NIE Networks and Harland and Wolff along with SONI are continuing to negotiate and discuss the securing of easements for the proposed 33kV cables. With regards the remainder of the project (proposed 110/33 kV substation and associated 110 kV cables) SONI continue to engage with three main stakeholders namely NIE Networks, Titanic Quarter Limited and Belfast Harbour Commissioners. Outside of this extensive Stakeholder engagement has taken place and continues to take place. This includes locally elected representatives, Belfast City Council, members of the public etc. Queens University Belfast have also met with SONI to discuss their plans in the Harbour Estate and how the new substation will help facilitate future growth in the area.
Adaptability	Throughout the course of the project, extensive engagement and negotiation, has, and continues to take place. SONI has engaged to explore a number of options to unlock the challenges faced in this project to allow the milestone to be achieved.
Cost Scale	Medium

Table 6 FWP034: Mid Antrim Upgrade

Deliverable	FWP034: Mid Antrim Upgrade
Description of Activities	SONI carried out an examination of the study area which includes the existing grid between Ballymena, Creagh, Kells and Rasharkin substations. The examination looked at several different options for delivering the project in this area including environmental, technical, and economic factors. In 2020, an Environmental Report was produced which appraised sample corridors where new grid infrastructure associated with each option could be located. SONI looked at existing grid infrastructure and how we could utilise it. 'Option 6' from the Option paper was selected, which includes a new substation at Terrygowan, an upgrade of the double circuit between Kells and Terrygowan (one side only) and a new overhead line between Terrygowan and Rasharkin. SONI completed Part 1 stakeholder engagement in 2021 which is where several key stakeholder groups, like the local council and elected representatives were engaged with so they can understand better how the project may affect communities, landowners, and businesses in the proposed area. Since then, this project has completed Part 1 of SONI's 3 Part Process for Developing the Grid and has entered Part 2, which identifies where the project will be built. An extensive Pre-Application Community Consultation (PACC) for the Mid Antrim Project will be undertaken within Part 2, before the submission of the planning application in Part 3. During the PACC, SONI's proposals will evolve from the point where only a study area will be presented for consultation, to detailed plans including a specific site and technology for the proposed project once stakeholder feedback has been taken into consideration. As we continue to progress the plans for this project, it is aimed to carry out an extensive and best practice public consultation on the proposals in 2022/2023. Section 27 of the Planning Act (Northern Ireland) 2011 places a statutory duty on applicants for planning permission to consult the community in advance of submitting an application, if the development falls within the major category as prescribed in The Planning (Development Management) Regulations (Northern Ireland) 2015. The proposed substation and associated development relevant to SONI's 'Mid Antrim Project' as referenced in this plan exceeds the threshold for major developments prescribed for the purpose of section 25(1) of the Planning Act (Northern Ireland) 2011 in relation to energy infrastructure. Therefore, it requires statutory Pre-Application Community Consultation (PACC) ahead of submission of any planning application. Upon completion of the PACC process, a detailed Pre-Application Community Consultation Report will be compiled and submitted alongside the planning application for the project. This Report provides a thorough assessment of the consultation activity undertaken by SONI, in line with statutory requirements. Following the determination of the planning process SONI will then hand the project over to NIE Networks for construction to commence. Landowner engagement and planning and environmental work began during mid-2022. Initial environmental walkover and surveys are expected to be completed in **September 2022**.

Delivery	**Position as of 30 September 2023:** Part 2A - **Completed**
	Part 2B – **Completed**
Date Revision	Not Applicable
Stakeholder Satisfaction/ Engagement	To date, SONI have completed part 2a and 2b of SONI's 3-Part Grid Development process on the Mid Antrim Upgrade. The details of stakeholder engagement carried out during both parts are laid out below. <u>Part 2a</u> SONI delivered three public engagement events in the three local council areas where the project is set to be constructed: Antrim and Newtownabbey Borough Council, Mid and East Antrim Borough Council and Causeway Coast and Glens Borough Council. Several direct engagements with interest groups, council officials and elected representatives were carried out to ensure interested stakeholders had access to up-to-date and accurate information about the proposal and were provided with sufficient opportunity to provide feedback that could be considered as the plans developed. In line with best practice, each consultation event hosted by SONI had an open invitation and was advertised through the local press. A campaign of social media activity on Twitter and LinkedIn also shared information on the project, directing people to SONI's Consultation Portal, where feedback could be submitted. SONI established a dedicated webpage containing information about the project; distributed copies of advertisements containing details of each event in local centres; created a dedicated email address and relevant contact details were made publicly available. A Community Forum and Citizen Sounding Board were established and facilitated by public participation charity, Involve, to enable as diverse a group as possible to learn more about the upgrade and route options and provide feedback that was used when developing the preferred options for the upgrade. By utilising several engagement methods, as set out above, SONI ensured that as many people as possible in the local area were aware of the consultation events, meaning stakeholders were informed of the proposal and how to provide feedback. <u>Part 2b</u> SONI delivered a further three public engagement events in the three local council areas where the project is set to constructed: Antrim and Newtownabbey Borough Council, Mid and East Antrim Borough Council and Causeway Coast and Glens Borough Council. Again, several direct engagements with interest groups were carried out to ensure interested stakeholders had access to up-to-date and accurate information about the proposal and were provided with sufficient opportunity to provide feedback that could be considered as the plans developed. The public engagement events were advertised across regional and local media outlets, as well as on digital platforms, including the use of targeted Facebook Ads for those living within close proximity to the proposed new infrastructure. SONI issued correspondence to the relevant parliamentary, assembly and council elected representatives advising them on the progress of the project and extending them an invitation to attend one of three public engagement events. The continuance of the Community Forum and Citizen Sounding Board enabled local deliberative engagement to discuss and provide feedback on route options and switching substation sites, as well as additional local knowledge that help SONI arrive at the final proposed route option and switching substation site. <u>Stakeholder satisfaction</u>

	Feedback from the Citizen Sounding Board enabled SONI to measure the satisfaction of this group of stakeholders by asking for detailed feedback from participants about their experience. The Community Involvement report compiled by Involve highlighted the following levels of stakeholder satisfaction: • 100% of participants either agreed or strongly agreed with the statement 'I was given enough information to form opinions on new subjects. • 100% of participants either agreed or strongly agreed with the statement 'I can see clearly that my views were taken into consideration throughout this process. • 83% of participants either agreed or strongly agreed with the statement 'I understand how the Mid Antrim Upgrade will help Northern Ireland meet its 80% renewal energy target by 2023. • 100% of participants either agreed or strongly agreed with the statement 'Processes like these should be used more by SONI to inform their decision making. The full report can be viewed here. The deliberative model of engagement adapted during parts 2a and 2b of this project was shortlisted as a finalist for the Working in Collaboration category at the Business in the Community NI Awards.
Adaptability	Given the geographical spread of the project, in depth engagement with the local community was considered a challenge. The use of the deliberative engagement model through the establishment of the Community Forum and Citizen Sounding Board, helped us to overcome this challenge by acting as a population sample and ensuring SONI had the thoughts and opinions of citizens from across the three local council areas.
Cost Scale	High

Table 7 FWP037: Drumnakelly and Armagh Reinforcement

Deliverable	FWP037: Drumnakelly and Armagh Reinforcement
Description of Activities	There is a need to reinforce the distribution system supplying Armagh city and the surrounding area due to increasing demand. It is also forecast that demand will exceed capacity at the existing Drumnakelly 110/33 kV substation. Options being considered include: • Establishing a new 110/33 kV substation adjacent to the existing Drumnakelly Main along with associated 33 kV reinforcements to the Armagh area; and • Establishing a new 110/33 kV substation at Armagh with new 110 kV circuits from Tandragee and/or Drumnakelly. NIE Networks and SONI are jointly working on their respective areas of this project. As part of Forward Work Plan 2022-2023 the following activities are required: 1. Finalising option appraisal and joint reports with NIE Networks, including the outcome of the environmental study. 2. Carry out Part 1 Stakeholder engagement with elected representatives in the project area and key stakeholders. 3. Finalise and submit a TNPP submission. This is currently expected to be complete by **April 2023**, subject to stakeholder engagement commencing in November 2022. 4. Progress Part 1 internal approval once the TNPP submission has been approved by the Utility Regulator.
Delivery	Part 1 – TNPP Submission – **Postponed** until March 2024
	Part 2 – Control Point One Approval – **Postponed**
Date Revision	SONI has not submitted the TNPP for this project with the milestone timelines in Forward Work Plan 2022/2023. This has been revised for Forward Work Plan 2023/2024 and a new target date for TNPP submission of **March 2024**. The Drumnakelly and Armagh Reinforcement project is being progressed as a joint project between SONI and NIE Networks. Following completion of an environmental study in 2022 to appraise the shortlisted options, SONI and NIE Networks agreed an update of the project need, analysis and the scope of the options was required to account for the findings of the environmental assessment. These works were carried out in 2023. NIE Networks completed their updates in August 2023. SONI are reviewing these updates, finalising the documents in preparation for Part 1 Stakeholder Engagement. SONI plans to carry out this Stakeholder Engagement from January 2024. In September 2023 SONI engaged NIE Networks to obtain their preconstruction cost estimates. These works are still being completed. Once obtained they will form part of the TNPP submission. The update of the project documentation has led to the deliverables set in Forward Work Plan 2022/2023 not being achievable. However, SONI and NIE Networks have completed a robust update of this report to allow it to be progressed for the new date for TNPP submission.
Stakeholder Satisfaction/ Engagement	No stakeholder engagement has taken place on this project. However, SONI are planning to carry out Part 1 Stakeholder Engagement from January 2024 and any feedback from these meetings will be used to inform our preferred option and to help finalise our TNPP submission.
Adaptability	SONI and NIE Networks acknowledged that after a long environmental study to appraise shortlisted options, and with the Climate Change Act (Northern Ireland) 2022, an update of the project need, analysis and the scope of the options was required. SONI identified areas within both the Needs and Options reports which required updates from NIE Networks. NIE Networks completed these updates and will review SONI's final updated reports when ready. Both companies continue to engage on this project regularly to ensure the Forward Work Plan 2023/2024 can be achieved.
Cost Scale	High[3]

[3] Costs are estimated at this stage and will be confirmed through Part 1 and the TNPP submission.

Table 8 FWP040: East Tyrone Reinforcement

Deliverable	FWP040: East Tyrone Reinforcement
Description of Activities	NIE Networks and SONI are jointly assessing the level of security of supply 110/33kV substation at Dungannon. It is forecast that demand will exceed capacity at the existing Dungannon 110/33kV substation. In addition, there is a particular risk to supplies following a second circuit outage. The options being considered that better address the objectives of this project include: • Expand Dungannon Main's compound, build a new bulk supply point with the full capacity installed and divert load/generation from existing Dungannon Main to the new bulk supply point. • Build a new bulk supply point in Cookstown and connect it through two single 110kV circuit coming from Dungannon Main. • Build new bulk supply point in Cookstown and connect it from the Dungannon – Tremoge 110kV circuits through a new marshalling substation. For this period, SONI intends to provide a TNPP submission to the UR in February 2023 followed by Control Point 1 approval estimated in September 2023.
Delivery	**Position as of 30 September 2023:** Part 1 – TNPP Submission – Postponed until January 2024
	Part 2 – Control Point One Approval – Postponed from **September 2023** to **April 2024**
Date Revision	The original date of **February 2023** was based on progressing the project into Part 2 with a study area around the affected substation. However, during stakeholder engagement with elected representatives on this approach the feedback was that SONI, prior to submission of the TNPP should engage with the landowner impacted by the preferred option rather than leaving this uncertain as a study area. This necessitated preparation of outline drawings and an associated environmental report by our consultant which is currently being progressed and expected imminently.
Stakeholder Satisfaction/ Engagement	SONI conducted stakeholder engagement meetings with the local MP as well as three MLA's. The stakeholders emphasised the need in the area due to industrial demand and were generally supportive of the project. SONI also met with the Head of Planning in Mid Ulster District Council.
Adaptability	Following the engagement with the elected representatives and specifically the valuable feedback to engage with the landowner prior to submission of the TNPP, SONI adapted its approach away from a study area and instead to develop an outline of the proposal and an environmental study prior to submission of the TNPP. SONI also made initial contact with the landowner that would be impacted by the preferred option.
Cost Scale	High

Table 9 FWP033: Mid Tyrone Upgrade

Deliverable	FWP033: Mid Tyrone Upgrade
Description of Activities	The key activity over the last period was the extensive constraint mapping required to progress the project. The 110 kV circuit between Omagh and Tamnamore is subject to high levels of constraint under high-RES conditions. This project will increase network capacity in this area. Options analysis is ongoing. Stakeholder engagement is expected to commence in early 2023 and a TNPP submission made in late 2023 which falls out of scope of this year's plan.
Delivery	Position as of 30 September 2023 - Complete
Date Revision	Not Applicable
Stakeholder Satisfaction/ Engagement	SONI has completed Part 1 of the 3-Part Process for Grid Development for the Mid Tyrone Upgrade. Part 1 engagement was focused on elected representatives in the West Tyrone and Fermanagh and South Tyrone constituencies as well as the Director of Planning in Mid Ulster District Council and the Director of Regeneration & Planning at Fermanagh & Omagh District Council. Given the large number of elected representatives in the project area, SONI focused on direct meetings with representatives from parties which have Assembly or Westminster representation in West Tyrone and Fermanagh & South Tyrone Constituencies. Prioritised stakeholders were encouraged to invite other party colleagues to the meetings, as appropriate.
Adaptability	Due to the volume of elected representatives in the project area SONI focused on direct meetings with representatives from parties which have Assembly or Westminster representation in West Tyrone and Fermanagh & South Tyrone Constituencies, while encouraging them to invite constituency party colleagues. This ensured SONI had capacity to engage with all political parties across both constituencies.
Cost Scale	High[4]

[4] Costs are estimated at this stage and will be confirmed through Part 1 and the TNPP submission.

Table 10 FWP039: Moyle 275kV Reinforcement

Deliverable	FWP039: Moyle 275kV Reinforcement
Description of Activities	At present, full utilisation of the 500 MW export capability of the Moyle Interconnector is prevented by the potential for network overloads and voltage steps in the event of the loss of the 275 kV double circuit between the Moyle converter station at Ballycronan More and the nearby Ballylumford and Hannahstown substations. This project involves works to allow reconfiguration of the connection to Ballycronan More Convertor Station, which then connects to Moyle Interconnector. To address these contingencies, the options being considered that better deliver the objectives of this project are based in connecting directly Ballycronan More Convertor Station to Ballylumford Power Station through two or three underground circuits.
Delivery	**Position as of 30 September 2023 - Complete**
Date Revision	With an estimated date on **January 2023** in the Forward Work Plan, this TNPP was submitted on 8th **September 2023**. The submission was delayed due to events **Outside of SONI's control,** an unanticipated complexity with the project around, for example, third party ownership of transmission equipment in the area, the presence of the Scotland Northern Ireland Pipeline in the area, the changing case of need triggering reassessment of the project need and also the timelines to complete stakeholder engagement.
Stakeholder Satisfaction/ Engagement	In the Part 1 phase of the project SONI held four separate engagement sessions with elected representatives across all levels of government (Council, Assembly and the House of Commons). There were some questions regarding the funding model, costs and potential disruption. SONI was also informed of the presence of the No Gas Caverns group and that they may have an interest in the project. SONI has taken this on board. One elected representative offered support on the basis that the project contributed to security of supply, integration of renewables and reduction of costs. SONI also met planning officials from Mid and East Antrim Borough Council and discussed the scope of the project and the likely planning implications.
Adaptability	SONI displayed adaptability by its review of the need for the project, given the connection and anticipated connection of system service providers to the transmission system, to ensure that the need remained robust prior to TNPP submission. The additional assessment showed that the need would remain and could be increased with the expected connection of offshore wind generation at Ballylumford,
Cost Scale	Medium

Table 11 FWP029: Coolkeeragh 110kV Extension

Deliverable	FWP029: Coolkeeragh 110kV Extension
Description of Activities	This project will facilitate the future connection of a third interbus transformer, the restoration of the second busbar coupler and section switches and other improvements. The main activity over 2021-2022 for this project was focused around the options report preparation and TNPP submission to the Utility Regulator. This was dependent on information being provided from NIE Networks. An Options Report identifying options for extension of the substation is currently being revised to take account of a new option proposed following stakeholder engagement. This is planned to complete in October 2022. SONI will also progress the preparation and submission of the TNPP to the Utility Regulator seeking approval of the preconstruction costs required to get consents for the project. TNPP submission is expected by **November 2022** and will progress to part 2 of the 3 part grid development process in **March 2023.**
Delivery	**Position as of 30 September 2023:** Part 1 – TNPP Submission – **Complete**
	Part 2 – Control Point One Approval - **Complete**
Date Revision	Not Applicable
Stakeholder Satisfaction/ Engagement	The following stakeholders were consulted: • ESB; • NIEA; • Derry City and Strabane District Council including CEO and Director of Planning; • Londonderry Chamber of Commerce; • Local MLAs and Councillors. SONI met with a number of elected representatives covering the Foyle constituency and Faughan District Electoral Area (DEA), which the Coolkeeragh substation site is situated in. SONI also met with planning and development officers from Derry and Strabane Council and members of the Londonderry Chamber of Commerce. Prior to these meetings, SONI also met with ESB - Coolkeeragh, NIE Networks and the Northern Ireland Environment Agency. In total, 7 individual stakeholders were consulted as part of this process; with all elected representatives contacted and offered a briefing on the project. In Part 2, of SONI's three-part grid development process, SONI will expand its public engagement to include a number of public information events, as well as follow up briefings with all key stakeholders briefed in Part 1. The majority of the feedback was largely positive, with stakeholders recognising the need for the project and the wider benefits that it would provide, particularly in relation to future investment and enhancing economic development in the Northwest.
Adaptability	We have engaged in a comprehensive programming exercise to estimate the timelines for activities in the critical path. It should be noted that the project entails an environmental aspect due to the bunds being contaminated and this needs to be dealt with carefully. Our stakeholder engagement has highlighted the importance of ensuring compliance with environmental regulations. We will continue to keep the programme under

	review and seek ways of shortening it where there are opportunities to do so, however, it is also possible that unforeseen circumstances may arise outside our control which may cause a delay to the delivery which we have experienced already to some degree.
Cost Scale	Medium

Table 12 FWP23-30: Tamnamore – Drumnakelly Restring

Deliverable	FWP23-30: Tamnamore – Drumnakelly Restring
Description of Activities	Over the period SONI plans to progress the project to a TNPP submission to the UR. These circuits may be subject to overload under high wind generation conditions and are operated out of service. This project is to replace the conductor on these circuits with higher capacity conductor. This will allow these circuits to fully return to service.
Delivery	**Position as of 30 September 2023 - Complete**
Date Revision	With the estimated date in the Forward Work Plan of **April 2023,** SONI made the TNPP submission for this project on 30th **August 2023**. The submission was delayed due to the unforeseen need to revise the scope of the preferred option to include additional undergrounding.
Stakeholder Satisfaction/ Engagement	Part 1 stakeholder engagement was carried out between December 2022 and March 2023. SONI met and informed elected representatives and council planners of the project across three council areas and two parliamentary constituencies. The feedback obtained has helped in finalising the TNPP submission.
Adaptability	Following engagement with NIE Networks on the initial scope of the preferred option SONI was made aware of delivery issues. SONI and NIE Networks worked together to identify a solution to an overhead line section in an urban area, and this was updated in the preferred option scope. These works were progressed as fast as reasonably possible, to not delay any stakeholder engagement meetings that were organised with elected representatives. Additionally, a second meeting was organised with a stakeholder to inform them of the revised scope of works and to ensure all stakeholders received the same information about the preferred option prior to TNPP submission.
Cost Scale	High

Table 13 FWP030: 275kV Substation Fault Level Solutions

Deliverable	FWP030: 275kV Substation Fault Level Solutions
Description of Activities	This project covers five substations which require a redevelopment (detailed below). **Magherafelt 275kV Redevelopment** A re-appraisal of the original design using modern standards has found that the concrete structures at Magherafelt are not sufficient to meet expected mechanical loading under a fault. This is being managed through a risk assessment and risk mitigation process by SONI and NIE Networks. SONI and NIE Networks are considering the impact on the feasibility of additional connections at Magherafelt 275 kV. This project will address this issue through redevelopment of the existing substation or replacement. **Castlereagh 275kV Redevelopment** A re-appraisal of the original design using modern standards has found that the concrete structures at Castlereagh are not sufficient to meet expected mechanical loading under a fault. This is being managed through a risk assessment and risk mitigation process by SONI and NIE Networks. SONI and NIE Networks are considering the impact on the feasibility of additional connections at these sites. This project will address this issue through redevelopment of the existing substation or replacement. **Tandragee 275kV Redevelopment** A re-appraisal of the original design using modern methods has found that the concrete structures at Tandragee are not sufficient to meet expected mechanical loading under a fault. This is being managed through a risk assessment and risk mitigation process by SONI and NIE Networks. SONI and NIE Networks are considering the impact on the feasibility of additional connections at affected sites. This project will address this issue through redevelopment of the existing substation or replacement. **Kells 275kV Redevelopment** A re-appraisal of the original design using modern methods has found that the concrete structures at Kells are not sufficient to meet expected mechanical loading under a fault. This is being managed through a risk assessment and risk mitigation process by SONI and NIE Networks. SONI and NIE Networks are considering the impact on the feasibility of additional connections at affected sites. This project will address this issue through redevelopment of the existing substation or replacement. **Coolkeeragh 275kV Redevelopment** A re-appraisal of the original design using modern methods has found that the concrete structures at Coolkeeragh are not sufficient meet expected mechanical loading under a fault. This is being managed through a risk assessment and risk mitigation process by SONI and NIE Networks but it is currently not possible to facilitate additional connections at Coolkeeragh 275 kV. This project will address this issue through redevelopment of the existing substation or replacement. The key activities over the period will be: • Coolkeeragh 275kV Redevelopment • Tandragee 275kV Redevelopment • Kells 275kV Redevelopment Commence the progression of procurement and award of contract with the substation design consultant

Delivery	**Position as of 30 September 2023 – Postponed** until September 2024
Date Revision	The procurement process has now commenced in respect of Kells substation. The reason for the delay was related to the need to engage further with NIE Networks on the scope of works more generally for the 275kV substations identified as having potential fault level issues. SONI expect to agree option appraisal scope of works required with NIE Networks for Coolkeeragh and Magherafelt by **September 2024.**
Stakeholder Satisfaction/ Engagement	There has been no stakeholder engagement as it is not required at this stage of the project
Adaptability	SONI adapted the scope of works following new information from NIE Networks regarding other developments at the Kells site.
Cost Scale	Low

Table 14 FWP23-25: Castlereagh – Rosebank

Deliverable	FWP23-25: Castlereagh – Rosebank
Description of Activities	This line is not currently in service however the condition of the assets requires that action be taken to either refurbish the line or remove it. SONI are assessing whether the line is needed in the long term. During the period 21/22, SONI has been engaged with residents and prepared a draft Options Report. SONI will be commencing stakeholder engagement in October 2022 and preparing a functional specification in November 2022.
Delivery	**Position as of 30 September 2023 – Complete** Options report completed in December 2022 and on SONI website January 2023. It showed that there was no need to reinstate the circuit from Castlereagh – Rosebank. It was therefore handed over to NIE Networks in January 2023 to be dealt with an asset replacement project.
Date Revision	Not Applicable
Stakeholder Satisfaction/ Engagement	SONI has engaged on an ongoing basis with the local residents group to provide them with updates on the progress of the Options Report. Once it was finalised, a copy of the Report was provided to the Group.
Adaptability	Not Applicable
Cost Scale	Low

Table 15 FWP23-26: Delivery Plan for NI Infrastructure Projects

Deliverable	FWP23-26: Delivery Plan for NI Infrastructure Projects
Description of Activities	Development of a delivery plan for all Transmission Reinforcement Projects and communicate externally. In light of recent developments such as the NI Energy Strategy publication, Path to Net Zero Action Plan and the revised target of 80% by 2030, SONI considers a prudent activity over the next period is to use the Transmission Development Plan for Northern Ireland Joint Working Group as a forum to discuss the delivery plan for system planning projects in order to further develop these plans in a holistic approach with NIE Networks and agree a plan together. **Key Actions & Deliverables** • Transmission Development Plan for Northern Ireland Joint Working Group to be used as a conduit for discussion and agreement of project plan with NIE Networks • Formalised project plan to be developed and implemented. • Communicated Externally
Delivery	**Position as of 30 September 2023 - Complete**
Date Revision	Not Applicable
Stakeholder Satisfaction/ Engagement	Through the TDPNI Working Group, SONI have been engaging on the Transmission Investment Programme with NIE Networks. This was key to the development of TDPNI 2023-2032, which details the work undertaken with NIEN and the impact on the programme. SONI engaged with key external stakeholders including Renewables NI, the Ulster Farmers Union, the heads of Planning in local councils and representatives of NI business before publishing the TDPNI for public consultation in September 2023. This work is critical to the achievement of 2030 (and beyond) targets and is key to ensuring that synergies are found between projects where possible. Through the TDPNI Working Group and other forums we are working with NIEN at every stage of project delivery, and it is key that both companies are focused on and accountable for delivery. Overall delivery of the Plan is also dependent on many external factors such as the Planning process and SONI will continue to engage with external stakeholders at an early stage to minimise risk to delivery.
Adaptability	The Plan is reviewed on an annual basis. All projects have been reviewed in the context of global supply chain difficulties, internal resourcing in both SONI and NIE Networks, and outside factors affecting delivery (e.g. the planning process). Where possible, efficiencies have been identified and brought forward – for example, we identified a need for more than 20 110/33 kV transformers as part of the Plan through the TDPNI Working Group. SONI and NIE Networks are working to implement measures that reduce risk to the overall programme. Through the analysis carried out in Shaping Our Electricity Future, key projects have been identified for integration of renewable generation (and achievement of mandatory targets). These have been prioritised in the Plan and called out in the TDPNI.
Cost Scale	Low