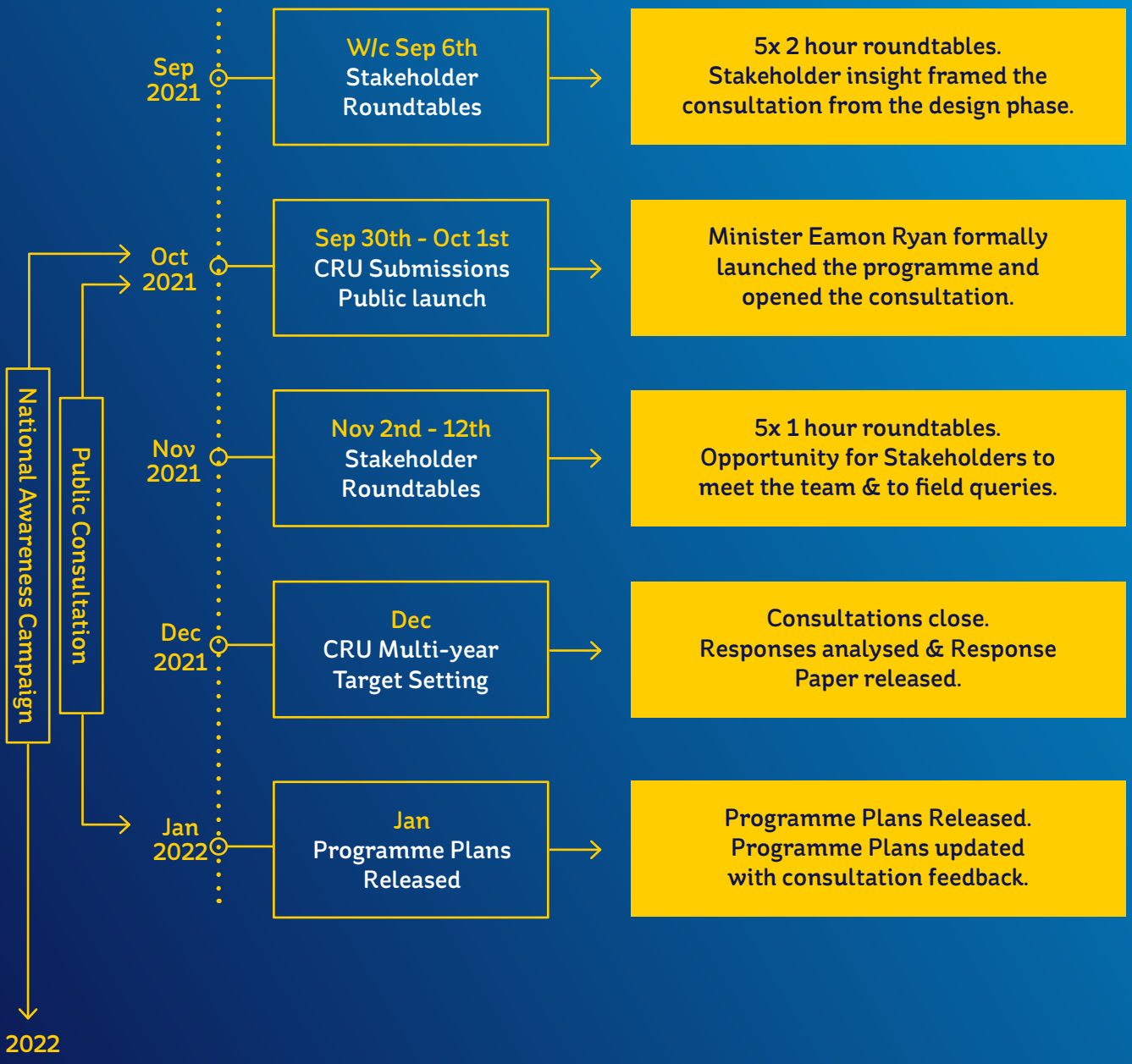
NETWORKS

Consultation Response Paper

NATIONAL NETWORK, LOCAL CONNECTIONS PROGRAMME

DOC-101121-HFI

CONSULTATION APPROACH



CONSULTATION SUMMARY

9 Week Consultation Process.

10 Consultation Documents & a Consultation Overview Document.

24 Consultation Responses.

25 Responses to the consultation survey
on the pace and scale of the programme.

296 Stakeholder Questions Answered.

9 Stakeholders featured in the stakeholder video.

5 Pre-consultation roundtables.
To ensure stakeholder perspectives framed the documents from their design.

5 Roundtables during consultation.
To provide stakeholders with an opportunity to speak with the team and to field queries

135 Stakeholders joined the roundtable discussions

15 Focus groups
across industry, homes, farms and businesses, 20-70 age group, cross sections of background / locations.

7 Stakeholders featured in a Sunday Business Post article.

10 Stakeholders featured on a Newstalk Podcast.

321 Registered stakeholders. Increase of 136 stakeholders within 5 days of official launch.

26 Thought leadership speaking opportunities across targeted industry segments

CONSULTED GLOBALLY, DESIGNED FOR IRELAND

12 Knowledge transfer sessions with International Utility Companies.

20 Meetings with International Energy Industry Experts.

14 Knowledge transfer sessions with Technology Experts.

14 Conferences attended.

2 Meetings with Energy Industry Representatives.

15 Focus Group Sessions.

10 Internal Review Groups.

33 Research documents reviewed.

5 Case study documents reviewed.

12 Meetings with Irish Energy Industry Experts.

CONTENTS

1

Introduction

1. INTRODUCTION

The decarbonisation of Irish society relies on fundamental changes to how energy is generated and consumed. To enable these changes at the right pace and the right price, we will rely on the electricity network, and we need to make the connection between how renewable energy is generated, and how we use or store it. Every Irish home, farm, community, and business is being called on to play a part. The National Network, Local Connections Programme has been established to work with, and for, customers to make this possible. ESB Networks serves, and is funded by, all electricity customers.

To support Ireland's 2030 Climate Action Plan targets, ESB Networks has committed to:

1. **Facilitate people in Ireland adopting up to 936,000 electric vehicles and 600,000 heat pumps.**
2. **Connect up to an additional 10 GW of renewable generation at transmission and distribution level, so that we can charge our cars and heat our homes using renewable electricity.**

1. INTRODUCTION

In September 2021, ESB Networks launched the National Network, Local Connections Programme consultation. Stakeholder feedback was requested on the 10 consultation documents below which aligned to the overarching themes of access & awareness, technology, market design and the DSO TSO Joint Plan. In developing these proposals, we took time to seek and utilise stakeholder input from round tables and focus groups, as well as to research and utilise exemplar international experiences.

ACCESS & AWARENESS	TECHNOLOGY	MARKET DESIGN	DSO TSO JOINT PLAN
2030 Power System Requirements	Signals & Data Exchange Guidance for DER	Phased Flexibility Market Development Plan	Multi-year DSO TSO Work Plan Covering 2022-2026
Local Network Visibility Multi-year Plan	Data Platforms & Dashboards	Flexibility Multi-year Plan	
Consultation Framework	Operational Systems Roadmap		
Piloting Roadmap			

Over the life of this programme, we will face uncertainties and risks. If we proceed too quickly, we increase the risk that customers will not be ready, or technologies will not be mature. But if we do not proceed quickly enough, there is a risk that the solutions will not be in place when they need to be. Given this context, understanding our stakeholders' perspectives on the proposed pace and scale of the programme was a key requirement of the consultation.

1. INTRODUCTION

The core objective of the National Network, Local Connections Programme is to bring together changes in how we are generating electricity, and how we are using it, to enable all electricity customers and communities to play an active role in climate action, by using or storing renewable electricity when it is available to them locally. As this objective can only be achieved with the support of, and close collaboration with, our stakeholders, the consultation process was structured around our stakeholders' needs. Below are examples of how we supported stakeholders to actively participate in the consultation:

Central focus of the stakeholder's needs in the programme design and delivery	To date we have ensured that our stakeholders' views are reflected in the programme design and delivery by developing and continually updating a stakeholder map mapping an accountable management team member who is responsible for keeping them informed, engaged or to collaborate with them.
External awareness campaign	We launched a media campaign to build awareness for the programme and engagement in the consultation. Our stakeholders have a key role in this campaign with features across print, radio and social media.
Pre-consultation roundtable workshops	Stakeholders were invited to 5 pre-consultation roundtable workshops to ensure stakeholder perspectives framed the consultation documents from their design.
During consultation roundtable workshops	Stakeholders were invited to 5 roundtable workshops during the consultation to provide stakeholders with an opportunity to speak with the programme team and to field queries.
Consultation overview document	An overview document explained the background to the National Network, Local Connections Programme and the proposed approach to delivering the programme. It also provided summaries of each consultation document to enable stakeholders to easily navigate the consultation to their areas of interest.
Consultation document - proposed questions	Each document provided a set of proposed questions that could be useful for stakeholders to consider in reading and responding to each document. The consultation welcomed responses to specific questions or a more general response.
Consultation extension	The consultation period was extended by 2 weeks at the request of stakeholders. This applied to all documents except the DSO TSO Work Plan Covering 2022-2026 which was jointly delivered by ESB Networks and EirGrid.

2

Purpose

2. PURPOSE

The purpose of this document is to formally propose the next steps in rolling out the National Network, Local Connections Programme, updating our original proposals of September 2021 based on the feedback received throughout the consultation period.

This document provides a synopsis of the responses received and how these are being incorporated into the updated rollout plans. All feedback was carefully reviewed and feedback which falls within the scope of the programme is being accounted for in the updated version of the individual policy documents and programme delivery plans.

The response to the Multiyear DSO TSO Work Plan Covering 2022-2026 consultation which was jointly developed by ESB Networks and EirGrid, is not included in this document. The response to the Multiyear DSO TSO Work Plan Covering 2022-2026 consultation is available on www.esbnetworks.ie or www.eirgrid.com

The National Network, Local Connections Programme's objectives can only be achieved with the support of, and close collaboration with our stakeholders, so we will continue to work in close partnership with our stakeholders during the delivery of this programme.

3

Key Feedback Themes & ESB Networks' Response

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

Engagement from stakeholders has been high throughout this consultation process, highlighting the importance of this programme both to the energy industry and to wider Irish society. Our stakeholders are keen to play an active role and to collaborate closely with us in developing the electricity system of the future to drive carbon out to society.

135 stakeholders joined our roundtable discussions held shortly prior to publication of our consultation documents to frame the proposals, and held again during the consultation process, to provide clarifications and discuss their initial feedback.

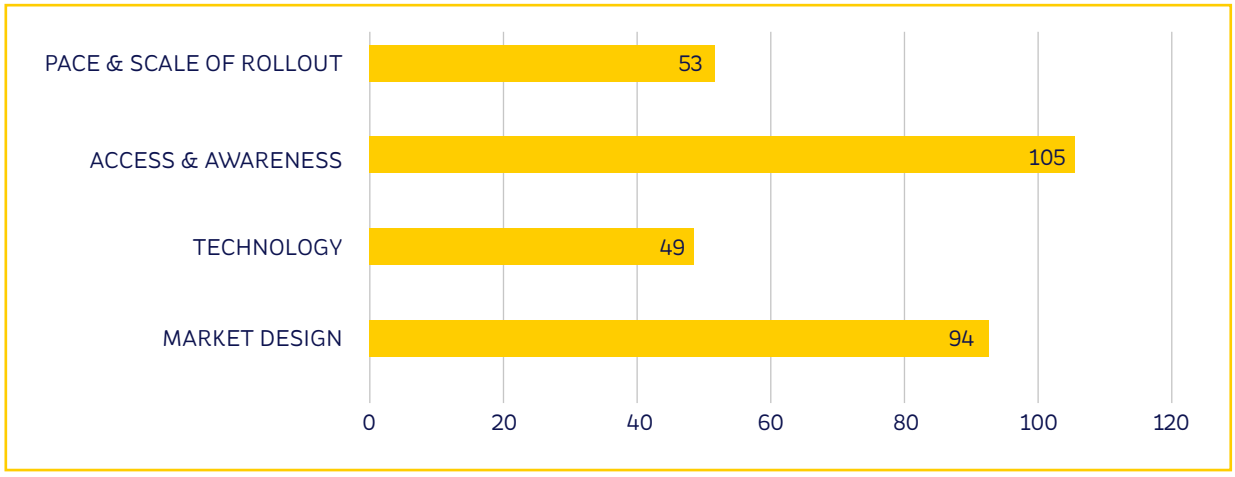
Feedback was received from a diverse set of stakeholders including householders, wind farms (community scale), energy SMEs, large utilities, energy suppliers, representative bodies, a state body, academia and vendors. We would like to acknowledge and thank our stakeholders for all of the feedback received.

We have clustered stakeholder feedback into thematic groupings below, for ease of review. Figure 1 illustrates the number of stakeholder feedback items by thematic grouping:

1. **Pace & scale of rollout**
2. **Access & awareness**
3. **Technology**
4. **Market design**

The remainder of this chapter details the themes identified within these thematic groupings, and actions we are proposing in response to the feedback received.

FIGURE 1 **VIEW OF STAKEHOLDER FEEDBACK ITEMS BY THEMATIC GROUPING**



3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

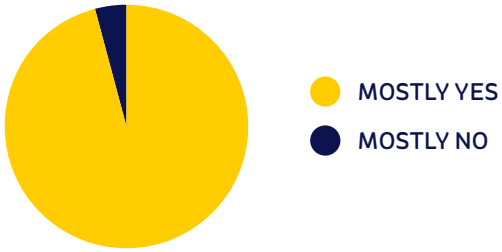
3.1 PACE & SCALE OF ROLLOUT

The core objective of this launch and consultation period was to begin a conversation about stakeholders' appetite for the pace and scale of rollout proposed for the National Network, Local Connections Programme. Each consultation document sought to test this appetite and support this conversation in different ways.

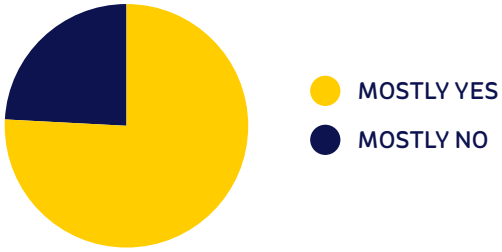
Pace & Scale – Survey Results

Stakeholders were asked to complete a survey during the roundtable sessions to inform the pace and scale of rolling out the National Network, Local Connections Programme. Stakeholders were provided with a summary of the programme's proposed pace and scale and invited to respond to the survey questions listed below.

1 **Do you agree that the pace of this programme is right? In particular: Piloting 2022 – 2024 in a half dozen one off schemes / locations.**



2 **Do you agree that the scale of this programme is right? In particular: National rollout commences end of 2024 and continues through 2025 with up to 50% national rollout by end of 2025.**



3 **What would you change in relation to the pace or scale of the National Network, Local Connections Programme? A word-cloud of stakeholder responses is provided here.**

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.1 PACE & SCALE OF ROLLOUT continued

Pace & Scale – Stakeholder Feedback

Mandate to proceed / appetite for pace

There was strong support for the proposed pace and scale of programme rollout as set out in this consultation. Stakeholders acknowledged that the proposed pace and scale is ambitious but there was agreement that this level is required and is achievable.

1 *"The four-year timeline for the National Network, Local Connections Programme seems appropriate, and ambitious"* - Business Representative Body

3 *"[Industry Association] would encourage ESB Networks to explore the possibility of a more rapid roll-out of initiatives, as referred to in Section 6.6 – High Pace and/or Scale."* - Renewables Representative Body

4 *"The implementation of active system management should occur as soon as possible to allow Ireland to have the best possible chance of meeting its climate targets"* - Renewables Representative Body

Importance of piloting

There was strong endorsement of the need for piloting, and the value and learnings this would be bring. Stakeholders noted that pilot learnings would benefit both ESB Networks and the wider industry and requested that we share pilot outcomes and learnings with stakeholders.

1 *"The experimental paradigm for the programme of pilots is very welcome"* - Business Representative Body

2 *"We would like to see outcomes and learnings from each pilot and how they will feed into operations at the TSO and DSO level being simply laid out and explained at the end of each pilot."* - Large Utility

3 *"In the event this [pilots] is not delivered according to the specified timeline, there is a reasonable probability that the success of the entire National Networks, Local Connections Programme will be diminished significantly"* - Renewables Representative Body

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.1 PACE & SCALE OF ROLLOUT continued

Pace & Scale – Stakeholder Feedback continued

Time & care needed in market design

Stakeholders acknowledged the complexity involved in designing and standing up a flexibility market. A number of stakeholders recommended that ESB Networks takes the time and care required to thoughtfully design and implement this new market, with the approval of the CRU. Stakeholders highlighted the importance of ESB Networks' collaborating closely with industry in the design and implementation of the new market.

1. *"We welcome the creation of markets for flexible services, however the process to design and implement these new markets is likely to take a significant amount of time and requires further industry engagement* - Renewables Representative Body

2. *"Ongoing engagement with industry is needed to fully understand the proposals in depth and help ensure that any new market is designed and implemented correctly"* - Renewables Representative Body

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.1 PACE & SCALE OF ROLLOUT continued

Pace & Scale – Actions

Based on the feedback received, the key actions we propose to account for these themes are:

1 **We will progress a formal proposal for the rollout of the National Network, Local Connections Programme to the CRU.**
Based on stakeholder feedback, this proposal will update the proposal set out in the September 2021 publication (i.e. including Release 1 2022 – 2023, Release 2 2023 – 2024 and Release 3 2024 – 2025) with a more adaptive approach than originally proposed (as per next action).

2 **We will introduce a more adaptive and agile approach to the programme** to deliver the right pace while maintaining the ability to adjust course over the life of the programme. Based on the feedback received, the programme will need to continuously adapt, to account for the outcomes of previous pilots, evolving customer needs, technology and industry/ regulatory priorities. To achieve this:

- As each major pilot or initiative within the programme is mobilised, we will undertake a definition exercise, accounting for stakeholder, customer and industry developments;
- The definition phase will conclude with a conscious decision to "progress-pause-or-adapt" i.e. to continue with the pilot/initiative, to discontinue it (e.g. if there is no longer a need or priority attributed to it), or to adapt the objectives and approach of the pilot.

3 **We will adapt the piloting roadmap** to reflect the strong stakeholder feedback received by –

- Bringing the definition phase for the RESS 1 Early Access Pilot forward, enabling candidate project engagement in Q2 2022 pending its progress-pause-or-adapt decision, the potential for go-live from Q2/Q3 2023;
- Undertaking the definition phase for a RESS 2 Community Non-firm Access Pilot, to determine the viability of a pilot to provide a number of community projects with non firm access under N-1 conditions, pending its progress-pause-or-adapt decision potentially going live in 2023/24;
- Undertaking the definition phase for an Agile Customer/Community Pilot available to energy communities nationwide which seek to participate. Pending its progress-pause-or-adapt decision, this could involve the provision of local electricity system dashboards, and measuring the behavioural impact of different approaches to driving awareness through the dashboards.

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.1 PACE & SCALE OF ROLLOUT continued

Pace & Scale – Actions continued

4 **We will remove the proposed milestones for a market/regulatory process** and subject to the CRU's consideration, a market consultation and approval process could be established to a timeline the CRU considers appropriate. Notwithstanding this, in our role as DSO we will:

- Undertake the definition phase for a proof of concept of the use of a market management system, and have due regard for market issues in the definition of piloting;
- Develop and submit formal proposals relating to how the DSO will fulfil its obligations under Articles 32 (1) and 32 (2) of the Electricity Market Directive 2019/944 at a time the CRU considers appropriate.

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.2 ACCESS & AWARENESS

Access & Awareness – Stakeholder Feedback

A summary of the key themes relating to access and awareness is provided below.

1 Close collaboration with stakeholders is essential

Stakeholders welcomed the programme's consultative approach and called for consultation and engagement over the life of the programme. Stakeholders also recommended that we actively engage a more diverse group of stakeholders. Some stakeholders found that the number of consultations in late 2021 gave rise to challenges engaging fully.

- *"It is also good to see that ESB Networks allocates significant priority to ongoing stakeholder engagement during the planning and execution of the programme"* – State Body
- *"… future initiatives will need to be inclusive of broad stakeholder engagement from customers, suppliers, technology providers, equipment manufacturers, aggregators and other demand side service providers, among others"* – Demand Response Representative Body

2 Broader scope of piloting

While there was widespread support for the iterative approach to piloting, stakeholders requested that we broaden the scope of earlier pilots. Some stakeholders requested that residential demand response feature in pilots from 2022 to proactively build residential involvement.

- *"With the initial trials focusing on I&C [Industrial & Commercial] in Pilots 1 & 2, ESB should look to run the domestic pilots earlier in conjunction with the I&C pilots - even if this is on a small scale."* – SME (Energy)
- *"The residential sector is likely to be the part where the programme will experience the greatest number of problems so it may be useful that at all stages that the project attempts to attract residential customers into these projects to ensure that techniques can be trialled before the 'Pilot of Scale' period."* – Business Representative Body

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.2 ACCESS & AWARENESS continued

Access & Awareness – Stakeholder Feedback continued

3 Piloting non-firm access timelines & breadth

Stakeholders largely endorsed the pace and scale of the programme, however some stakeholders advocated for bringing forward the RESS1 pilot and for community non firm access pilots. A substantial portion of stakeholders called for the programme to introduce flexible (or "non-firm") connections as a simple bilateral arrangement between the DSO and the connecting project rather than more complex local market arrangements.

- *"…for the pilot scheme to have a positive impact on RESS 1 projects, ESB Networks would need to bring forward these timelines."* – Windfarm (Community Scale)
- *"This is inherently less complex and can be implemented quickly with immediate benefits to consumers through RESS auctions with faster and lower cost deployment of the renewables."* – Renewables Representative Body
- *"It is our view that the pilot programme should initially focus on smarter connections for generation seeking to connect through the ECP process or capacity markets"* – Renewables Representative Body

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.2 ACCESS & AWARENESS continued

Access & Awareness – Actions

The key actions we are taking to update our plan to account for these themes are:

1 **We are proposing the introduction of a consultative stakeholder group**, for which terms of reference and ways of working will be developed and the subject of consultation in early 2022, as set out in the **Consultation Framework** update. The stakeholder group will play a central role as one of the channels for understanding stakeholder views, collaboration and supporting stakeholders' ability to plan for and influence the timing of consultations in future. (In the interest of ensuring that individual interests are neither advantaged nor disadvantaged by virtue of participation, this will be a consultative body as opposed to a decision making forum).

2 **As set out under Pace and Scale, we will adapt the piloting roadmap and increase our ability in the programme to adapt and adjust course**. This includes:

- Undertaking the definition phase for an Agile Customer/Community Pilot, a Community RESS 2 Pilot, and bringing forward definition phase of the RESS 1 Early Access Pilot, with each subject to a progress-pause-or-adapt decision at the conclusion of this definition process.
- The introduction of a consultative definition phase as each pilot is mobilised, concluding with a conscious decision to progress the pilot/initiative, to pause it, or to adapt the pilot's objectives or approach to reflect industry conditions and stakeholder needs at the relevant point in time.

3 **We will seek to engage in an open and collaborative manner with stakeholders seeking to develop viable propositions** for delivering the flexibility products and services proposed at distribution level, including for example aggregators, energy services companies and suppliers. Having set out a preliminary suite of candidate products in the **Phased Flexibility Market Development Plan** (link here), our next steps are to:

- Work with the competitive market participants who we hope and expect will recruit customers to deliver these services, to support their development of viable propositions, and
- Apply what is learned in this way, to inform the future development of the products themselves.

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.2 ACCESS & AWARENESS continued

Access & Awareness – Clarifications

Based on the responses received, we would also like to clarify that:

1. **We plan to build on the engagement and collaboration initiated in 2021, as we move forward with the design and implementation of the programme. The engagement and consultation in 2021 is just the beginning a dynamic and collaborative process over the life of the programme.**

2. **Pilot learnings and outcomes will be shared with stakeholders. Pilot learnings will provide rich insights for *all* stakeholders, and we are strongly of the view that sharing this learning value is critical to the success of the programme.**

3. **We recognise the importance of coordination between the system operators, and are collaborating closely with the TSO throughout the design phase of the programme. This will continue over the life of the programme, and the Multiyear DSO TSO Work Plan Covering 2022 – 2026 sets out the approach and plan for this close collaboration.**

Finally, from the feedback received we understand that there is an appetite for more visible regulatory oversight of the programme. As such, firstly we want to acknowledge the role of the CRU in the National Network, Local Connections Programme. The programme was established in response to key objectives set out by the CRU for the PR5 period, and since the beginning of the programme, the CRU has played a central role in mandating and encouraging its development.

As we work towards a proposal to the CRU as per Article 32(2) of the Electricity Market Directive 2019/944[1] at a point in time directed by the CRU, we will share the information and evidence arising from the piloting and the engagement programme as input to an eventual decision making process.

[1] Distribution system operators, subject to approval by the regulatory authority, or the regulatory authority itself, shall, in a transparent and participatory process that includes all relevant system users and transmission system operators, establish the specifications for the flexibility services procured and, where appropriate, standardised market products for such services at least at national level.

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.3 TECHNOLOGY

Technology – Stakeholder Feedback

A summary of the key themes relating to technology is provided below.

1 Pilots key to trialling technology

There was broad stakeholder agreement that the pilots offer an important opportunity for participants to trial technology. For example, stakeholders noted that the pilots will provide a key role in evaluating the interoperability of distributed energy resources (DER).

- *"The flexibility trial will be the ideal platform to ensure adequate evaluation of interoperable distributed energy resources"* – SME (Energy)

2 Role of automation

Stakeholders advocated for automation to facilitate near real time communication between ESB Networks' operational systems and DER. While automation is currently proposed in Release 3 of the programme, some stakeholders called for automation to be introduced earlier in the programme.

- *"The UK have trialled telephone operated demand-turn-up with up to 6-hour notice periods. Ireland must do better."* – SME (Energy)
- *"It is of concern that the supporting technology does not have automation as a key deliverable from the onset in Release 1, instead Release 1 and Release 2 will rely on email/phone-based engagement to enable distribution connected resources. … we would strongly advise that ESB adjust their planned releases to incorporate automated enablement of distributed resources."* – SME (Energy)

3 Variety of distributed energy resources supported in the programme

Several stakeholders emphasised the range of potential solutions involving residential and commercial customers' behind-the-meter resources. They identify that it will be important that the programme supports services from these resources.

- *"Depending on the technology, smart devices have the ability to deliver a variety of services such as real power control, power factor control, reactive power control, voltage control etc. It is important that the programme is able to encompass devices that offer one or more of these services."* – SME (Energy)

4 Market Management System

Our publication of October 15th 2021 set out the functional requirements for a market management system, and referenced some key non-functional requirements, for example the need for integration with core operational systems. One of the key themes emerging in stakeholder feedback was the question of whether a market management system should be owned software or a third-party platform.

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.3 TECHNOLOGY continued

Technology – Actions

Throughout Q4 2021, we have commenced a rigorous review of the market for market management systems or platforms, which involved engaging with a range of vendors of software, software as a service and market as a service offerings. As part of this review, we have commissioned an assessment of the relative merit of different options (owned software or the use of a third-party platform). This review is accounting for the strengths and weaknesses of these options in terms of reliability and availability, cybersecurity, ability to be modified or adapted, cost, support requirements, vendor lock in, potential to inadvertently create a new third party monopoly by favouring a given provider, consistency with flexibility service requirements in Ireland etc.

Pending the outcome of this review, we will undertake a definition phase to consider whether candidate solutions should be piloted through proof-of-concept developments, including with market-as-a-service providers.

The key actions we are taking to update our plan to account for these themes are:

1 **Automation**
While we note that there was some appetite to introduce automation earlier in the programme, at this time we are not proposing to increase the early investment in automation. This is because automation introduced during release 1 or release 2 would become redundant when legacy DSO systems (employed in releases 1 and 2) are retired and release 3 goes live – we are concerned that DUoS customers' investment would be stranded. However, we can commit that in the definition phase of each pilot, this issue will be explicitly considered, accounting for technological and stakeholder developments in the meantime, and the needs arising at that time.

2 **We will undertake a definition phase to consider whether candidate solutions, including third-party market management platforms, should be piloted within the piloting programme.**
This will follow the completion of an ongoing review of the current industry for market management systems and platforms, including owned software, software as a service and market as a service offerings in early 2022. The learnings from this initiative will be accounted for in the definition phase and decision to progress associated with any market management system piloting.

3 **The range of insights shared relating to DER technologies** will be incorporated into the next phase of developing the relevant aspects of the programme, in an open and consultative manner.

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.3 TECHNOLOGY continued

Technology – Clarifications

Based on the responses received, we would also like to clarify that:

1 **Non-firm access on the distribution system, in most instances, will involve additional technology in excess of what is currently in place.** Although direct tripping within a substation is currently in place, if the asset driving an uprate is remote from the wind farm in question, then a new manual or automated SCADA-based approach would be required. This would involve control of the wind or solar farm from the NDCC in contingencies. Furthermore, non-firm access on a forward feed basis would require the introduction of forecasting and automation to facilitate ongoing management, rather than simple event driven response.

2 **Flexibility on the distribution system could not be introduced / supported through the use of existing TSO systems (e.g. EDIL).** The TSO systems are designed to support the operation of the transmission system. Where flexibility is operating on the distribution system, local distribution system impacts must be accounted for in determining the necessary and/or safe amount of flexibility required in each time period. This requires additional technology development, introducing new functionality with respect to distribution system management, in line with the Operations Systems Roadmap presented.

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.4 MARKET DESIGN

Market Design – Stakeholder Feedback

A summary of the key themes relating to market design is provided below.

1 Flexibility market design considerations

Stakeholders identified that time and care is needed for market design, with due regard for consistency with existing market structures. Stakeholders called for involvement in the development of detailed proposals, and highlighted the importance of governance. Stakeholders noted the importance of ESB Networks designing and implementing the flexibility market in a transparent and neutral manner.

- *"ESB Networks must remain neutral and facilitate market development in an independent manner to ensure the optimal solution for flexibility procurement at the distribution level is determined."* - Large Utility
- *"The development of these new enhanced capabilities, along with the potential of a new market framework, needs to be considered in detail with an overall holistic approach taken on how this integrates with the current and future market environment"* - Large Utility

2 Close collaboration with the TSO is critical

Stakeholders emphasised the importance of strong collaboration between the TSO and DSO, particularly with regard to the design of the flexibility market so it complements the existing market structures.

- *"…must ensure that adequate amounts of data are exchanged between the Transmission System Operator and the Distribution System Operator to be viable."* – Renewables Representative Body
- *"… strong co-ordination between TSO and DSO is essential to ensure that the alignment between different markets (capacity, system services, flexibility, etc.)."* – Demand Response Representative Body

3 Non firm connections

As set out in relation to the piloting programme, generation stakeholders expressed their preference for flexible (non firm) access on a non-market basis. They identified the introduction of market-based flexibility as an alternative to non-firm as a secondary consideration.

- *"The market for flexible services for large demand is likely to form a part of the complete system but initial focus should be to facilitate flexible generator connections rather than market-based systems which are inherently much more complex."* – Renewables Representative Body

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.4 MARKET DESIGN continued

Market Design – Stakeholder Feedback

4 Market parameters
Stakeholders provided a range of perspectives on matters including contract durations, availability and utilisation payments, and long term investment signals.

- *"a 2-year contract and pay as bid is not sufficient to attract and incentivise investment from providers."* – Renewables Representative Body
- *"It would be prudent to ensure payment based on both availability and utilisation, as has notably been the practice in the UK for example."* – Renewables Representative Body

Market Design – Actions

The key actions we are taking to update our plan to account for these themes are:

1 **As set out in Section 3.1 (Pace and Scale)**, rather than setting out a timeline for the regulatory process associated with distribution system flexibility market design, ESB Networks will engage in an open and consultative process to account for market design in the piloting roadmap. We will develop and submit formal proposals relating to how the DSO will fulfil its obligations under Articles 32 (1) and 32 (2) of the Electricity Market Directive 2019/944 at such time as the CRU considers appropriate;

2 **The feedback received with regard to market design parameters will be considered in an open and consultative manner**, as part of the piloting programme and in the development of eventual proposals relating to how the DSO will fulfil its obligations under Articles 32 (1) and 32 (2) of the Electricity Market Directive 2019/944 to be submitted at such time as the CRU considers appropriate;

3. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

3.4 MARKET DESIGN continued

Market Design – Clarifications

We would like to clarify the role of the DSO with respect to flexibility services on the Irish distribution system. Firstly, ESB Networks is not seeking any competitive role – we want to support the development of an effective and liquid market for aggregation and energy management which supports customers' participation in flexibility on the distribution system. Notwithstanding this, the role of the DSO with respect to flexibility and managing demand and generation will change, in line with the provisions of the Clean Energy Package.

Specifically, Article 32 of the Electricity Market Directive sets out that as distribution system operator and subject to approval of the CRU, we are responsible for establishing the specifications for the flexibility services procured and standardised market products for such services at least at national level, in a transparent and participatory process that includes all relevant system users and transmission system operators. This is what we are endeavouring to do by engaging in market design activities in an open and consultative manner, as set out in the Phased Flexibility Market Development Plan which has been the subject of recent public consultation.

Finally, in responses to stakeholders' queries, we can confirm that the National Network, Local Connections Programme is an ESB Networks initiative which will involve the introduction of flexibility services in our operational jurisdiction only. However, ESB Networks and NIE Networks engage and collaborate on an ongoing basis and are continuously sharing insights and learning regarding the introduction of flexibility services. ESB Networks is committed to the development of flexibility services in ways which support stacking (providers participating in a range of different market opportunities to increase their overall revenues) and are operationally compatible with transmission system services and energy market operations.

4

Stakeholder Feedback

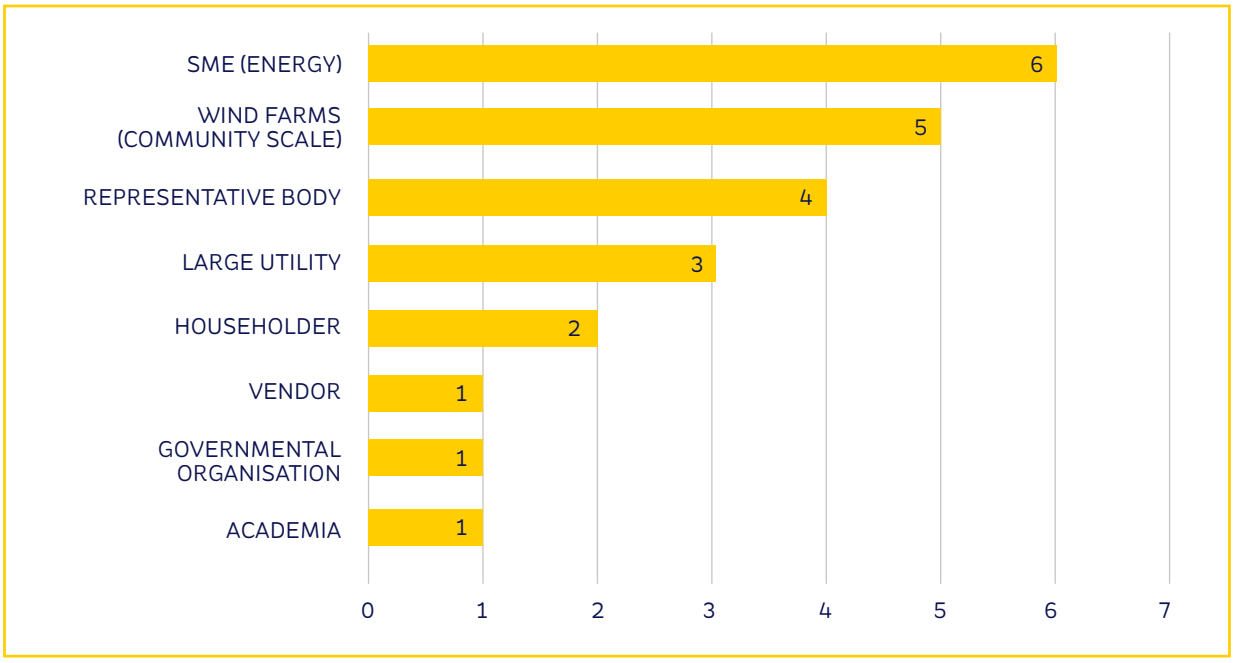
4. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

This section provides some analysis on stakeholder feedback to the consultation and on the types of feedback received.

4.1 RESPONDER TYPE SEGMENTS

The National Network, Local Connections consultation generated great interest and feedback from over 10 sectors. The diversity of feedback received ranged from community scale windfarms to representative bodies. Figure 2 provides a breakdown of all the types of responders by sector.

FIGURE 2 **VIEW OF CONSULTATION RESPONDERS BY SECTOR**

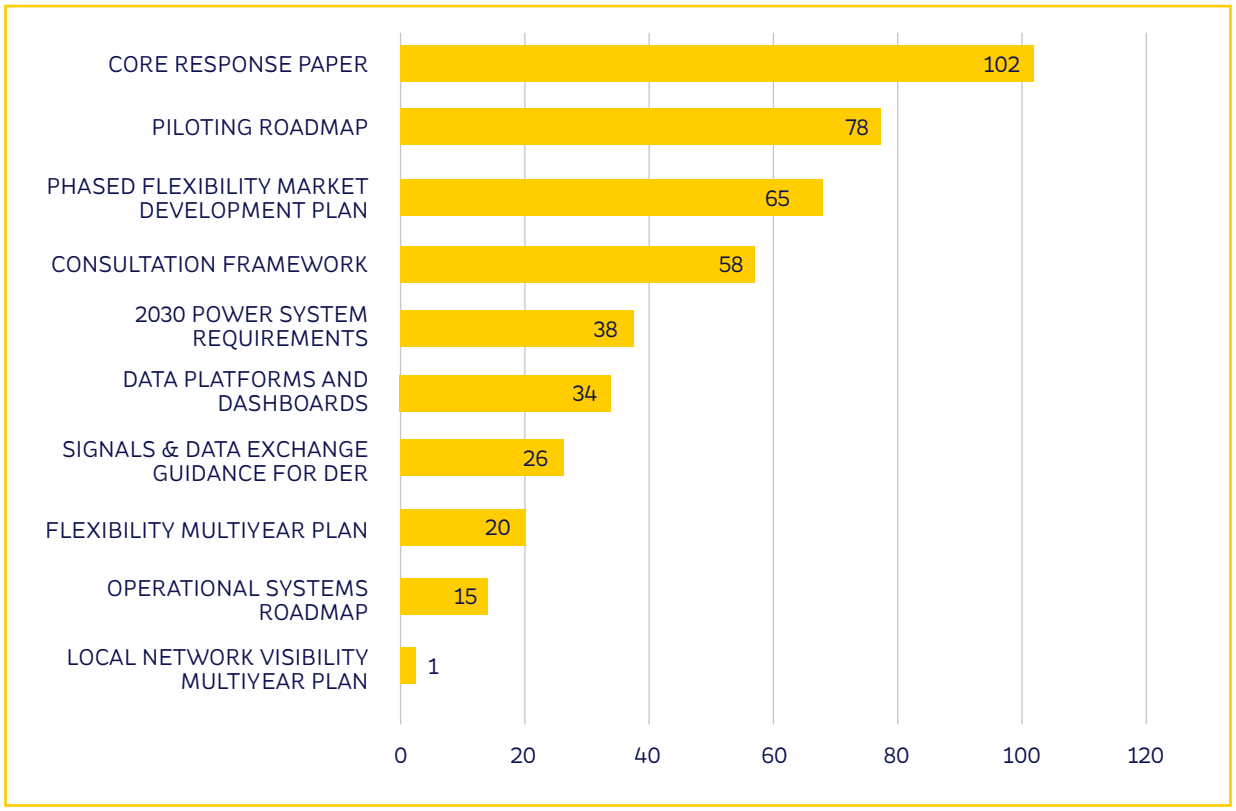


4. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

4.2 STAKEHOLDER FEEDBACK MAPPED TO CONSULTATION DOCUMENTS

Figure 3 below maps stakeholder feedback to the associated consultation document / core response paper. Note some items of feedback applied to multiple documents and thus were mapped to multiple documents accordingly.

FIGURE 3 **VIEW OF STAKEHOLDER FEEDBACK MAPPED TO CONSULTATION DOCUMENTS / CORE RESPONSE PAPER**

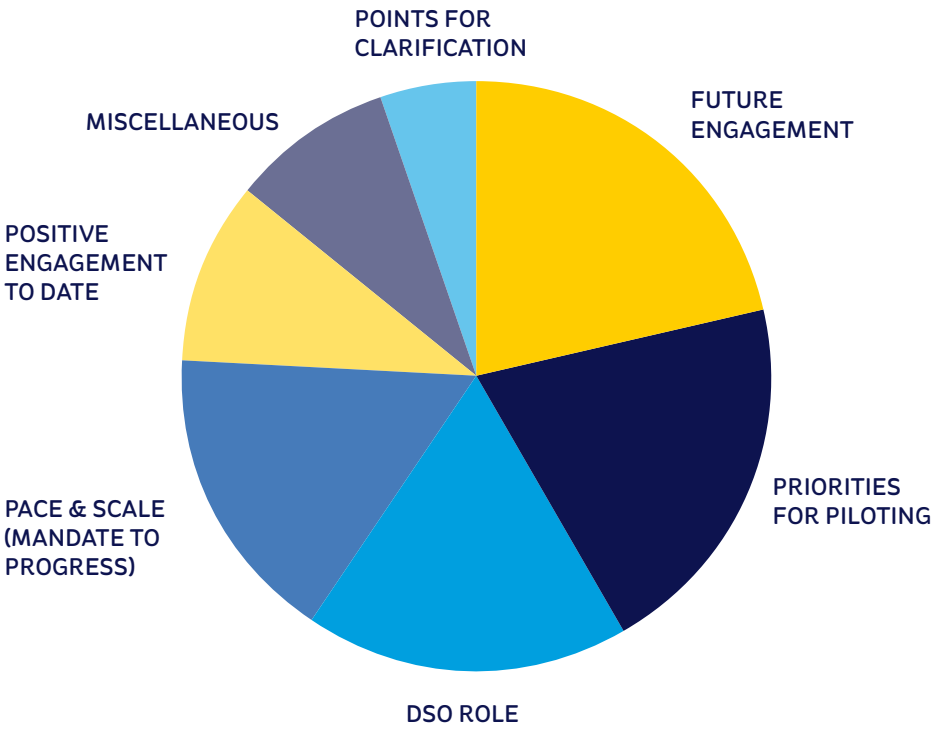


4. KEY FEEDBACK THEMES & ESB NETWORKS' RESPONSE

4.3 STAKEHOLDER FEEDBACK GROUPED BY CATEGORY

Stakeholder feedback was classified into seven broad categories. Figure 4 below illustrates the volume of stakeholder feedback in these seven broad categories.

FIGURE 4 **VIEW OF STAKEHOLDER FEEDBACK GROUPED BY CATEGORY**



A full view of the feedback received and our responses, identifying any action taken (or where action is not proposed, the underlying reasoning) is provided as an appendix to this paper. Furthermore, the detailed comments will, where appropriate, be reflected in the finalised version of the individual policy and delivery proposals published as part of this consultation process.

5

Next Steps (Formal Proposal to the CRU)

5. NEXT STEPS (FORMAL PROPOSAL TO THE CRU)

As set out previously, the purpose of this document is to formally propose the next steps in rolling out the National Network, Local Connections Programme, updating our original proposals of September 2021 based on the feedback received throughout the consultation period. The extensive National Network, Local Connections Programme consultation has provided a solid foundation of stakeholder feedback providing a mandate to progress the programme at the pace previously proposed with insights informing a small number of updates to the milestones proposed previously. Stakeholders' insights have informed the proposed updates set out in this document. Throughout the life of the programme, we will need to deliver the right balance of ambition and due regard for the risks associated with safe and secure network management.

The key updates to the proposal submitted to the CRU in September 2021, set out in further detail later in this section, include:

1 **As Introducing a more adaptive and agile approach to the programme** to deliver the right pace while maintaining the ability to adjust course over the life of the programme to account for the outcomes of previous pilots, evolving customer needs, technology and industry/ regulatory priorities and technical conditions on the distribution system. To achieve this:

- As each major pilot or initiative within the programme is mobilised, we will undertake a definition exercise, accounting for stakeholder, customer and industry developments;
- The definition phase will conclude with a conscious decision to "progress-pause-or-adapt" i.e. to continue with the pilot/initiative, to discontinue it (e.g. if there is no longer a need or priority attributed to it), or to adapt the objectives and approach of the pilot.

2 **Adapting the piloting roadmap** to reflect the strong stakeholder feedback received by:

- Bringing the definition phase for the RESS 1 Early Access Pilot forward, enabling candidate project engagement in Q2 2022 pending its progress-pause-or-adapt decision, the potential for go-live from Q2/Q3 2023;
- Undertaking the definition phase for a RESS 2 Community Non-firm Access pilot, to determine the viability of a pilot to provide a number of community projects with non firm access under N-1 conditions, pending its progress-pause-or-adapt decision potentially going live in 2023/24;
- Undertaking the definition phase for an Agile Customer/Community Pilot available to energy communities nationwide which seek to participate. Pending its progress-pause-or-adapt decision, this could involve the provision of local electricity system dashboards, and measuring the behavioural impact of different approaches to driving awareness through the dashboards.

5. NEXT STEPS (FORMAL PROPOSAL TO THE CRU)

3 **Removing the proposed milestones for a market/regulatory process** and subject to the CRU's consideration, a market consultation and approval process could be established to a timeline the CRU considers appropriate. Notwithstanding this, in our role as DSO we will:

- Undertake the definition phase for a proof of concept of the use of a market management system, and have due regard for market issues in the definition of piloting;
- Develop formal proposals relating to how the DSO will fulfil its obligations under Articles 32 (1) and 32 (2) of the Electricity Market Directive 2019/944 at a time the CRU considers appropriate.

As detailed in section 3 above, the rich stakeholder insight and feedback received was reviewed and is being accounted for in the updated version of the individual policy documents and programme delivery plans. These plans will underpin the delivery of the programme, at the pace and scale endorsed by our stakeholders but in a manner which is agile and adaptive, accounting for evolving customer needs, technology, industry/regulatory priorities, economic and technical conditions on the distribution system. These programme's delivery plans are available on www.esbnetworks.ie.

This core rollout plan is being submitted to the CRU as the basis of the CRU's target setting process. The targets set by the CRU will ultimately determine the pace and scale of rollout of the National Network, Local Connections Programme.

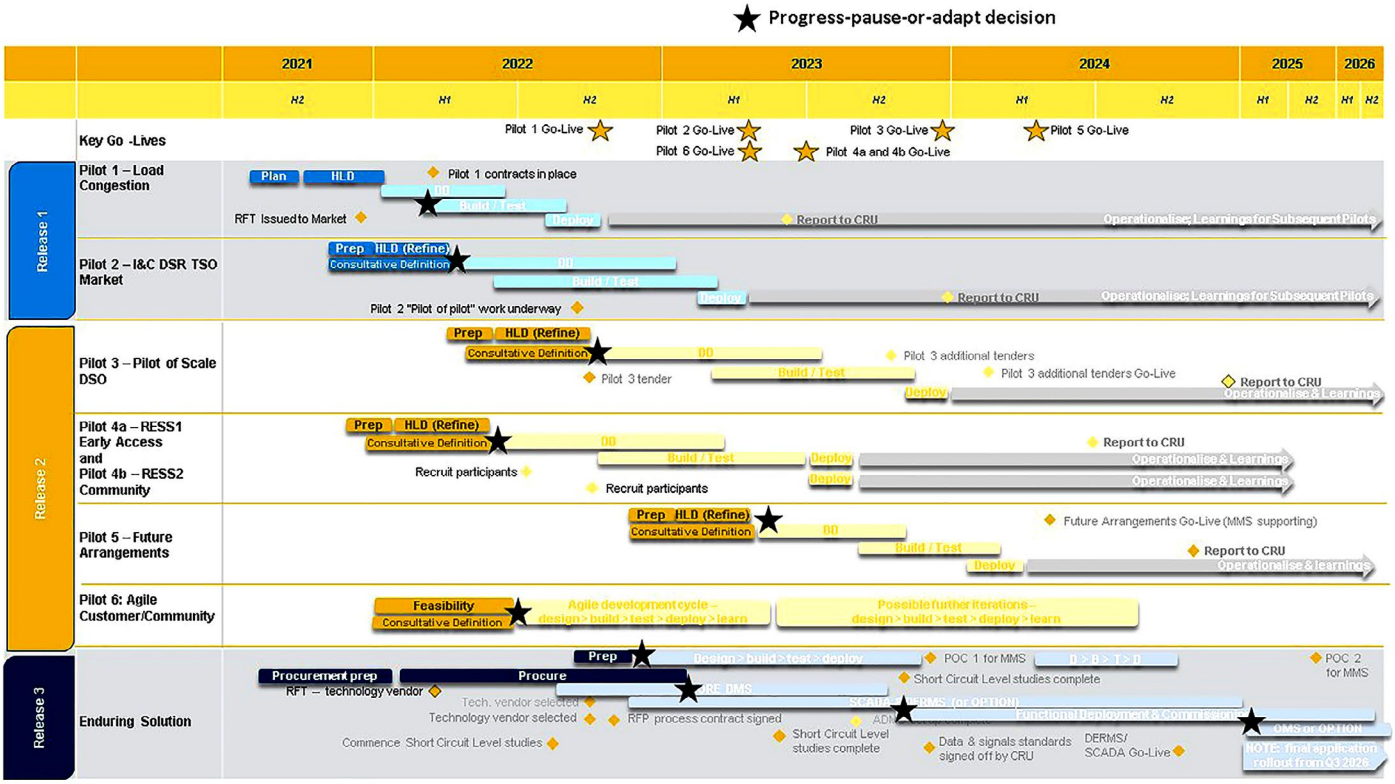
Finally, in line with our proposal to adopt a more adaptive and agile approach to the programme, we note that there will be time and resourcing needed to deliver the consultative definition steps introduced at the beginning of each pilot or initiative. Although we consider that this best reflects stakeholders' expectations and customers' best interests, it may affect the timeline of piloting due to:

1 **The time needed to support a meaningful consultative process, cognisant of stakeholders' availability and the complexity of some of the subject matter;**

2 **Proposals to adapt pilots, which may in themselves affect the timeline of any given pilot or initiative.**

5. NEXT STEPS (FORMAL PROPOSAL TO THE CRU)

5.1 PROPOSAL – FLEXIBILITY PROGRAMME ROLLOUT



Based on the feedback received, we are updating the previous proposal set out in the September 2021 publication (i.e. including Release 1 2022 – 2023, Release 2 2023 – 2024 and Release 3 2024 – 2025) with a more adaptive approach than originally proposed. This includes adjustments to the piloting programme set out above, and the potential for individual pilots or initiatives to be progressed, paused or adapted based on their consultative definition phase.

There is a strong mandate both for the piloting programme delivered in Release 1 and Release 2, and the rollout of technology capable of supporting a full national rollout of flexibility services, as part of business-as-usual DSO operations, in Release 3. However, there was also a strong mandate for an adaptive and consultative approach. As such, we propose that rather than making a final determination at this time as to the detail and ultimate milestones of a given initiative, that each pilot or initiative would be updated to include a consultative definition phase as it is mobilised. This definition would conclude with a conscious decision to:

1. **Progress the initiative, to the initially proposed milestones and objectives;**
2. **Adapt the initiative, with milestones and objectives reflecting updated information and needs;**
3. **Pause the initiative, to reflect new information and changing customer / stakeholder needs.**

The timing of these consultative definition phases is illustrated above.

5. NEXT STEPS (FORMAL PROPOSAL TO THE CRU)

Release 1

This release commences at the beginning of 2022 and will end in April 2023 pending adaptations which may be introduced through the consultative definition of the key initiatives in this release. The two proof points for us and for customers within this release are:

1. **Pilot 1: Local/DSO Market for Demand Side Response (Industrial and Commercial Scale).**
2. **Pilot 2: SEM/TSO Market for Demand Side Response (Industrial and Commercial Scale).**

Pending the consultative definition of these initiatives, and the associated progress-pause-adapt decisions, this release will involve the development of the following capabilities. Some of these (indicated as "core PR5" below) are required in line with the PR5 determination. Others (indicated as "ancillary" below) are ancillary developments which we are proposing should be accounted for in the definition phase of the relevant initiatives, with a view to addressing key risks and needs which we have identified during the high level design phase of the programme.

REF	CANDIDATE OUTCOMES, FOR CONSIDERATION IN CONSULTATIVE DEFINITION PHASES	PR5 OR ANCILLARY
1	Standard processes for identifying thermal or voltage scarcity associated with demand, and providing engineering definition for a service solution.	Core PR5
2	Operational safety measures relating to switching, earthing and cybersecurity with relevant processes (and/or training) updated to account for the use of flexibility services as an operational tool.	Ancillary
3	Engineering impact assessments, and process and technology updates to account for the impact of flexibility services on protection, contingency management, HILP planning, black start and load shedding activities.	Ancillary
4	Powerflow, optimization and forecast functionality available to control room staff who have been suitably trained.	Ancillary
5	Flexibility services and related pilot market, and regulatory framework appropriate to piloting in this release. Learnings and outcome report to inform the development of a market and regulatory framework for local flexibility services.	Core PR5
6	New DSO/TSO operating model to manage the interaction between local and transmission operations and services / market management. This will address (in a preliminary manner) registration, operational planning, scheduling, dispatch, redispatch and contingency management.	Ancillary
7	Processes and system functionality to utilize contracted flexibility services to manage demand congestion or network contingencies.	Core PR5
8	Preliminary (email/phone-based) modalities to enable distribution connected resources participate in TSO system services and wholesale market, addressing ex-ante, failsafe and compliance processes.	Ancillary
9	Preliminary contract flexibility services and the ability to schedule and dispatch contracted service providers.	Core PR5
10	End to end customer journeys for customers and aggregators participating in local or transmission services from the distribution system, based on the customer segments involved in pilots 1 and 2.	Ancillary
11	Validation and settlement processes for contracted flexibility service providers.	Core PR5
12	Evidence-based customer experience and satisfaction measurement/baseline with improvements identified, based on the customer segments involved in pilots 1 and 2.	Ancillary

5. NEXT STEPS (FORMAL PROPOSAL TO THE CRU)

Release 2

The intent of Release 2 is to progress the developments and concepts introduced in Release 1, up to April 2024 and involving:

1. **Pilot 3: Pilot of Scale** involving multiple services and customer types, at a given network location, pending a progress-pause-adapt decision in H2 2022;
2. **Pilots 4a RESS 1 Early Access and 4B: RESS 2 EARLY ACCESS (NEW)** involving early system access for RESS 1 and RESS 2 projects, pending a progress-pause-adapt decision in H1 2022. Note: care will be needed to scale these pilots such that they can be supported in a secure manner from the control room, noting that until Release 3 this will involve manual control room processes.
3. **Pilot 5: Future Arrangements (Pilot Release)** involving a first step towards implementing new modalities enabling the participation of distributed resources in future transmission system services, pending a progress-pause-adapt decision in H1 2023.
4. **PILOT 6: AGILE CUSTOMER/COMMUNITY PILOT (NEW)** involving the agile development of customer / community dashboards leveraging our network visibility as this becomes available (noting that this will be quite limited initially) to provide customers with insights into their local energy system, and testing and measuring the impact of different approaches to driving awareness and engagement with the local energy system, pending a progress-pause-adapt decision in H1 2022;

Pending the consultative definition of these initiatives, and the associated progress-pause-adapt decisions, this release will involve the development of the following capabilities:

REF	CANDIDATE OUTCOMES, FOR CONSIDERATION IN CONSULTATIVE DEFINITION PHASES	PR5 OR ANCILLARY
1	Connection agreement amendment/side letter for early access arrangement for connection generation.	Core PR5
2	Standard process to identify thermal and/or voltage issues associated with demand and generation congestion. Appropriate solution in terms of the standardised flexibility services for the Release 2 pilots.	Core PR5
3	Operational safety measures accounting for the impact of flexibility services under Release 2 pilots related to switching, earthing and cybersecurity with relevant processes (and/or training) updated.	Ancillary
4	Engineering impact assessments, process and technology updates to account for the impact of flexibility services (associated with Release 2) on protection, contingency management, high impact, low probability (HILP) event planning, black start and load shedding activities.	Ancillary
5	Data policy, strategy and sharing processes/technology associated with Release 2 activities.	Ancillary
6	Adaptation and update of standardised flexibility services to support Release 2 pilots and the related flexibility market framework (incremental to Release 1).	Core PR5
7	Processes and system functionality to utilise contracted flexibility services to manage demand and generation congestion or network contingencies.	Core PR5
8	Preliminary (email/phone-based with some SCADA functionality) modalities to enable distribution connected resources participate in TSO system services and wholesale markets, addressing ex-ante, failsafe and compliance processes.	Ancillary
9	DSO dispatch of new distribution connected resources.	Core PR5
10	Contracts for flexibility services for Release 2 pilots and ability to dispatch contracted service providers.	Core PR5
11	Contingency plans to maintain network security where service providers become unavailable in operational timescales.	Ancillary
12	End to end customer journeys for customers and aggregators participating in local or transmission services from the distribution system, based on the customer segments involved in pilots 3, 4 and 5.	Ancillary
13	Evidence-based customer experience and satisfaction measurement with improvements identified, based on the customer segments involved in pilots 3, 4 and 5.	Ancillary

5. NEXT STEPS (FORMAL PROPOSAL TO THE CRU)

RELEASE 3

This release would deliver capabilities allowing ESB Networks to:

1. **Replicate / roll out solutions based on the learnings of pilots 1 – 5 nationally**
2. **Introduce and update flexibility services in an agile manner.**
3. **Improve the customer and stakeholder experience of participating in flexibility.**

Pending the consultative definition of these initiatives, and the associated progress-pause-adapt decisions, this release will involve the development of the following capabilities:

REF	CANDIDATE OUTCOMES, FOR CONSIDERATION IN CONSULTATIVE DEFINITION PHASES	PR5 OR ANCILLARY
1	Connection agreement amendment/side letter for non-firm or flexible access arrangements for connection generation developed.	Core PR5
2	Standard processes to identify thermal, voltage, short circuit level, dynamic stability issues associated with demand, and generation congestion and solutions available as standard network planning options.	Core PR5
3	Operational safety measures accounting for the impact of contracting for flexibility services under Release 3 related to switching, earthing and cybersecurity with relevant processes (and/or training) updated.	Ancillary
4	Engineering impact assessments, process and technology updates to account for the impact of flexibility services (associated with Release 2) on protection, contingency management, high impact, low probability (HILP) event planning, black start and load shedding activities.	Ancillary
5	Data policy, strategy and sharing processes/technology for Release 3 pilot.	Ancillary
6	Standardised flexibility services to address thermal, voltage, issues and the related flexibility market framework developed (incremental to Release 1 & 2). Impact assessment of the potential for short circuit level, dynamic stability products.	Core PR5
7	Processes and system functionality to utilise contracted flexibility services to manage demand and generation congestion or network contingencies.	Core PR5
8	Automated modalities (based on interface between operational and market systems) to enable distribution connected resources participate in TSO system services and wholesale markets.	Ancillary
9	DSO dispatch of new distribution connected resources.	Core PR5
10	Contract flexibility services for thermal, voltage, short circuit level, dynamic stability issues and ability to directly dispatch contracted service providers.	Core PR5
11	Contingency plans established to maintain network security where service providers become unavailable in operational timescales.	Ancillary
12	End to end customer journeys for customers and aggregators participating in local or transmission services from the distribution system, based on the customer segments involved in pilots 3, 4 and 5.	Ancillary
13	Evidence-based customer experience and satisfaction measurement with improvements identified, based on the customer segments involved in pilots 3, 4 and 5.	Ancillary
14	Standard products and services available for energy communities and active energy customers, to support their interaction with local renewables and networks.	Ancillary
15	Standard dashboards and platforms available for energy communities and active energy customers, to support their interaction with local renewables and networks.	Core PR5

5. NEXT STEPS (FORMAL PROPOSAL TO THE CRU)

5.2 FINAL PROPOSALS - KEY MILESTONES

The "preliminary" milestones in this table are proposed as the basis of CRU target setting with respect to the Flexibility Multiyear Plan. However, we propose that "final" milestones used in ex-post assessment would account for the outcome of each consultative definition process and the associated progress-pause-adapt decision. This will be important to ensure the integrity of the consultative definition process and deliver meaningful outcomes in terms of programme adaptability.

The preliminary critical path technology milestones and capabilities added, pending progress-pause-adapt decisions, are described in the table below. These milestones and capabilities refer to:

1 **Milestones and capabilities proposed as per the National Network, Local Connections Programme Operational Systems Roadmap, for ESB Networks to procure and manage flexibility services.**

2 **Milestones and capabilities proposed as per the National Network, Local Connections Programme Signals & Data Exchange Guidance, to introduce standard requirements for electricity system customers' new technologies, to be able to participate in flexibility.**

TABLE A – SYSTEMS MILESTONES

	DATE	MILESTONE	IMPACT	RELEASE
2022	Pending H1 2022 progress-pause-adapt process, H2 2022	Proof of concept release forecasting	Begin planning the dispatch of flexibility services and scheduling demand side units on a weekly and daily basis (for dynamic instruction sets).	R1
		Technology vendor	Selection of the vendor(s) for implementing the technology needed for a national rollout of flexibility, by the end of PR5.	R3
		Definition phase to consider feasibility of proof of concept of the market management system (MMS)	With a view to supporting customers' and stakeholders' interaction with the market for Pilots 3, 4 and 5.	R3
2023	Pending H2 2022 progress-pause-adapt process, H2 2023	Definition phase to consider appropriate mechanisms for automated dispatch	Building towards the dispatch active and reactive power set points to pilot participants in a more automated manner.	R2
2024	Pending 2022-2023 progress-pause-adapt processes, H2 2024	Nationwide Rollout – solution proof of concept go-live	Proof of concept deployment of a solution for supporting PR5 requirement on a pilot area of the network, to be scaled in 2025 pending successful pilot.	R3

5. NEXT STEPS (FORMAL PROPOSAL TO THE CRU)

The critical path DSO milestones and capabilities added are described in the table below. These milestones and capabilities refer to:

1 **Power system engineering milestones and capabilities needed to identify the need for, define and use new flexibility services..**

2 **Market design milestones and capabilities needed to introduce and manage local flexibility markets, including the rollout of the products introduced in the National Network, Local Connections Programme Phased Flexibility Market Development Plan.**

TABLE B - DSO MILESTONES

	DATE	MILESTONE	IMPACT	RELEASE
2022	Pending H1 2022 progress-pause-adapt process, H1 2022	Pilot 1 contracts in place	Giving confidence to the market and enable customers / services providers proceed with investment to prepare for pilot go-live.	R1
		RESS1 Early Access Pilot – candidate project engagement	Pending pause-progress-or-adapt decision, Early Access Pilot flexible connection products to become available enabling contracting and initial procurement for services to go live in Q4 2023.	R2
	Pending H1 2022 progress-pause-adapt process, H2 2022	Pilot 1 go-live	Going live with the use of the secure and dynamic flexibility services as part of distribution system operational management.	R1
		Pilot of Scale – flexibility schemes procurement	Procurement for a number of flexibility schemes to operate within the pilot area, including customers down to domestic level and the launch of new products.	R2
		Scope Dynamic Studies	Foundational system profiling and analysis to support TSO/DSO coordination.	R3
		Scope System Strength (Short Circuit Level) Studies	Foundational system profiling and analysis to enable the design of future system strength flexibility products.	R3
2023	Pending 2022 progress-pause-adapt processes, H1 2023	Pilot 2 Go-live	Week-ahead and day-ahead scheduling of individual demand sites within DSUs commences, replacing annual instruction sets.	R1
		Pilot 4a Go-live	RESS-1 projects can connect on a non-firm basis (for N-1 events).	R2
		Standard Industry Reporting	Establishment of initial standard market and regulatory reporting on the procurement and dispatch of DSO flexibility, and of TSO flexibility bids validated.	R3
	Pending 2022 progress-pause-adapt processes, H2 2023	System Strength (Short Circuit Level) Studies Progressed	Foundational system profiling and analysis to support TSO/DSO.	R3
		Pilot 3 Go-live	Multiple flexibility schemes operating within the pilot area go live, including customers down to domestic level.	R2
		Dynamic Stability Studies Progressed	Foundational system profiling and analysis to enable the design of future system strength flexibility products coordination.	R3
		Pilot 3 schemes go to tender	Tendering for additional services in the pilot location, based on updated system needs and capabilities implemented for first go-live.	R2
		Pilot 4b Go-live	Participating RESS-2 projects can connect.	R2

[2] All eligible pipeline HV or MV reinforcement schemes to be tested for a flexible solution, with rolling tenders established

5. NEXT STEPS (FORMAL PROPOSAL TO THE CRU)

	DATE	MILESTONE	IMPACT	RELEASE
2024	Pending 2023 progress-pause-adapt processes, H1 2024	Future Arrangements Initial Go-Live [3]	Enabling distribution system customers participate in new transmission system services arrangements on an initial basis.	R2
	Pending 2022-2023 progress-pause-adapt processes H2 2024	Agile Customer/ Community Pilot Go Live	Network visibility leveraged to provide customers with insights into their local energy system, and test and measure the impact of different approaches to driving awareness and engagement with the local energy system.	R2
		Nationwide Rollout – Flexibility Procurement	All eligible pipeline HV or MV reinforcement schemes to be tested for a flexible solution, with rolling tenders established.	R3
		New products rollout	Develop product criteria for piloting services relating to - System strength (short circuit levels) - Dynamic stability	R3

2025 High Level

This plan is a detailed plan for 2022 – 2024, as required in the Regulatory Framework and Incentives for PR5, however the indicative developments in 2025 are proposed to include:

1. **Nationwide rollout of flexibility services.**
2. **Introduction of standard services / support for energy communities.**
3. **Introduction of nationwide standard services for active energy customers.**
4. **Rollout of modalities enabling distribution customers participate in transmission and SEM markets.**

Visibility Rollout

As limited feedback was received on the visibility multiyear plan, and this is unchanged from original PR5 proposals and targets, we propose that the rollout plan as set out in the September publication and submission be adopted as the basis of visibility targets.

At the time of writing, LV data model validation should commence in H1 2022 and the installation of LV monitors should commence in H2 2022. However, we note there are substantial dependencies for these timelines to be met, in particular as relates to LV data model development (and subsequent validation).

[3] Pending the outcome of the SEM Committee's High Level Design Phase and subsequent SEMC developments.

5. NEXT STEPS (INCLUDING FORMAL PROPOSAL TO THE CRU)

5.3 NEXT STEPS

The CRU has indicated that targets will be set for the rollout of the National Network, Local Connections Programme, within the Flexibility Incentive Mechanism and the Visibility Incentive Mechanism, in January 2022. Our ability to hit the timelines set out above is dependent on targets being set in a timely manner in January. As such, we will provide any support or engagement required subsequent to this submission, to support the CRU bring this process to a timely conclusion.

Subject to the targets set, ESB Networks will formally seek the additional funding required within the Agile Framework and the annual revenue process, in line with the rules governing the operation of the Agile Framework.

We will continue the close collaboration developed with industry & with our customers through this consultation engagement in delivering this programme. To ensure the programme is charting the best course to deliver its objectives and to support achieving Ireland's Climate Action Plan targets, learnings from the delivery of programme milestones including the pilots, stakeholder feedback, international experiences, new research and technology advancements will feed into future iterations of the programme delivery plans and we have included logical checkpoints throughout delivery to continuously assess any changing customer needs and adapt our delivery plans as necessary.

For more information on the National Network, Local Connections Programme, visit the National Network, Local Connections Programme website or for queries on the programme, please email engagement@esbnetworks.ie.