NETWORKS

# 2026 Innovation Consultation Response Paper

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# Executive Summary

In January 2026, ESB Networks published its annual consultation report, 'Innovation to Deliver Networks for Net Zero', outlining its Innovation Strategy, innovation activities and project portfolio during 2025, and areas of focus for the coming year. Stakeholders were invited to provide feedback, and twenty-one detailed responses were received from various sectors, including the renewable sector, flexibility services, electrification, academia, utilities, and equipment/system manufacturers. The number of stakeholder responses received to this year's Innovation Stakeholder Consultation was 75% higher than those received in 2025, and 163% higher relative to 2024. This upward trend demonstrates a sustained growth in stakeholder interest and engagement with our innovation activities.

Stakeholders broadly support the strategic ambition and direction of ESB Networks' Innovation programme for 2026, recognising its central role in enabling Ireland's transition to a resilient, decarbonised electricity system. Respondents expect the coming years to be defined by rapid electrification of heat, transport and industry, accelerating adoption of distributed energy resources (DER), concentrated demand growth driven by data centres and housing expansion, and the intensifying impacts of climate related weather events. These trends place particular pressure on medium voltage (MV) and low voltage (LV) networks and heighten expectations around connection speed, transparency and digital self-service.

Across the submissions, stakeholders emphasise the need for innovation to progress from pilot-led experimentation to scalable operational capability. They highlight the importance of predictive and risk-based asset management, weather integrated operations, enhanced LV visibility, flexible and dynamic connection models, and AI enabled scheduling and workforce optimisation. Respondents see flexibility, both from residential and commercial/industrial customers, as a critical operational tool, and several submissions recommend structured pilots for industrial non-firm import capacity to align flexible demand with renewable availability.

Stakeholders also call for stronger whole of system collaboration, including better TSO–DSO coordination, improved alignment with local authorities, and a multiagency national "capacity to connect" framework to support housing delivery, large load connections and renewable integration. They support enhanced data sharing, providing more refined locational visibility of network capacity and network reinforcement plans, and emphasise the need for strong data governance and transparency as digitalisation accelerates. Overall, respondents encourage ESB Networks to continue building innovation into its core operational processes, strengthening governance, standardisation, and adoption pathways to deliver measurable benefits for customers, communities and the energy system as a whole.

# Introduction

In its annual innovation consultation report, 'Innovation to Deliver Networks for Net Zero', ESB Networks outlined its revised Innovation Strategy and provided an overview of its current project portfolio. Stakeholders were invited to provide feedback, guided by a questionnaire designed to help shape and inform future innovation activities.

To support a more structured and inclusive consultation process, ESB Networks introduced a dedicated online consultation response form this year. The form invited respondents to comment on specific projects, topical subjects and industry trends, as well as to provide general feedback on metrics, barriers and communication channels. As the feedback received was primarily in response to the questions posed in the online form, rather than general enquiries, this paper summarises those responses and provides commentary where appropriate. ESB Networks remains open to bilateral meetings and other direct engagement with stakeholders and customers on any of the innovation topics raised in this report.

The revised consultation format may have contributed to a marked increase in responses, with written submissions received from 21 respondents across the following sectors:

- **Renewable Energy Sector**
- **Construction Sector**
- **Flexibility - Demand Response**
- **E-Heat & E-Transport**
- **Academia**
- **Utility**
- **Equipment Manufacturers/Technology Providers**

Positive feedback and support were received from respondents in relation to many of our ideas, pipeline projects and active projects. Several respondents proposed specific products or topics for consideration, as well as specific offers of collaboration.

As part of our ongoing engagement with stakeholders throughout 2025, bilateral meetings and workshops were held with the renewable electricity sector, academia/research, e-heat, e-transport, energy agencies/authorities, equipment/systems manufacturers, utility/TSO, industry and large energy users, electricity suppliers, industry consultants and international organisations.

# Feedback Summary

## 1. What developments or emerging trends do you believe will have the greatest impact on Ireland's electricity network over the next 5 years (2026-2030)?

Stakeholders expect the next five years to be shaped by rapid electrification across heat, transport and industry, driving significant increases in demand, sharper load peaks and new stresses on the Medium Voltage (MV) and Low Voltage (LV) networks. The expansion of Distributed Energy Resources (DER) including rooftop solar, storage, Electric Vehicle (EV) charging and behind the meter load will further reshape the distribution system, making it more dynamic and increasingly bidirectional. Respondents also highlighted the accelerating impact of climate-related events, with severe weather leading to more faults and longer restoration challenges, requiring ESB Networks to strengthen resilience and adopt predictive and risk-based approaches to planning and operations. Large industrial loads, including data centres and energy intensive industries, were cited as major contributors to concentrated regional demand growth. Across the responses, there is a consistent expectation that digitalisation, customer expectations for transparency and the need for more agile processes will continue to grow, while supply-chain pressures and workforce constraints will influence the pace of infrastructure delivery.

### ESB Networks Response:

ESB Networks recognises the significant developments highlighted by stakeholders and agrees that the coming years will be defined by rapid electrification, increasing DER activity and greater climate related pressures on the distribution network. Many of the challenges identified, such as rising MV/LV demand, the need for enhanced resilience, and more dynamic, data driven operations are already being addressed within our 2026 innovation project portfolio. We will continue to integrate stakeholder insights as we refine our planning, expand monitoring and forecasting capabilities, and strengthen our operational readiness. The feedback received reinforces the direction of our existing work and will inform future priorities as our innovation portfolio evolves in response to system needs and Ireland's broader decarbonisation goals.

## 2. How should ESB Networks' innovation programme respond to these trends? What should we consider for our innovation programme and what impact and benefit do you feel this would deliver customers and the electricity network?

Respondents strongly support the 2026 vision for innovation but emphasise the need to transition from standalone pilots to innovation that is systematically embedded into day-to-day operations. They recommend a strong focus on LV visibility and analytics, predictive asset health modelling, dynamic operational tools, and weather integrated planning. Some stakeholders highlight the importance of structured governance, clear pathways to business as usual (BAU) adoption, early benefits definition and stage-gates to support effective scaling. Several submissions call for prioritising innovations that improve resilience, reduce connection timelines and deliver transparent, customer centred digital processes.

Respondents underline the importance of collaboration with regulators, technology providers, aggregators and the Transmission System Operator (TSO) to ensure that innovation contributes to system-wide outcomes, and they recommend that ESB Networks continues to align its programme closely with national climate objectives, industry readiness and regional development needs.

### ESB Networks Response:

ESB Networks is aware of the challenges of transitioning successful innovation pilots into business operations. This challenge is not unique to ESB Networks and engagement with other Distribution System Operators (DSO) is ongoing to identify practices elsewhere that can be followed. ESB Networks' Innovation Strategy, published during 2025, documents the revised innovation governance process which includes a stage-gate for project "Handover and Closure" during which the approach for adoption by the business will be considered, if appropriate.

The strategy also highlights the areas of focus for innovation projects over the coming years, with these focus areas to be kept under regular review as business strategy and national policies evolve. Many of the areas of focus referenced by respondents align with the focus areas outlined in the revised Innovation Strategy.

## 3. What innovations may be necessary, in your view, to support, enable and drive the increased adoption of low-carbon technologies, such as EV Charging, Heat Pumps, Solar PV and energy storage, and how might these innovations be delivered and achieved?

Stakeholders identify enhanced MV and LV monitoring, network capacity analytics, and dynamic voltage optimisation as critical technical enablers for the large-scale uptake of EV charging, heat pumps, solar PV and energy storage. They emphasise the importance of dynamic and flexible connection models, including timed connections, conditional export/import limits, and flexible access frameworks that optimise existing infrastructure. Respondents also highlight the value of automating connection assessments and design validation to streamline processes, alongside smart charging and flexible solutions that mitigate EV clustering impacts. Submissions from industry call particular attention to the role of industrial flexibility, recommending pilots for non-firm import capacity to support industrial heat processes that adapt to the availability of renewables on the system. Collectively, stakeholders see a strong need for better forecasting, weather-informed analytics and customer centric digital tools that provide clarity, predictability and ease of engagement.

### ESB Networks Response:

ESB Networks has implemented a significant number of innovative projects in recent years to enable the widespread adoption of low carbon technologies (LCT) and this continues to be a key focus of our innovation programme. The establishment of the new Low Voltage (LV) Planning team and dedicated Electrification team during PR5 ensures a greater understanding of the impact of LCT on the network and an ongoing focus on innovation in this area. The LCT Register was launched as an innovation pilot in 2025 and is providing increased assurance that LCT devices connecting to the network are compliant with standards and while also helping to reduce the administration involved for customers in the LCT connection application process.

A pilot to assess the impact and potential of a timed connection is underway with one of our customers, demonstrating how a flexible connection can benefit customers particularly in areas of the network with limited capacity. Meanwhile, LV monitoring devices are being installed across the network to provide insights on the impact of LCT adoption. Proof of concept projects relating to self-service connection visibility and innovative infrastructure combining public lighting with electric vehicle charging have also been progressed, whilst advanced analysis of weather data and how it can support more informed business decisions is also being explored.

ESB Networks will continue to progress innovation projects that enable greater uptake of LCT and support their transition into business as usual operations, in line with feedback from the consultation.

## 4. What 'whole-of-energy-system' challenges, if any, should be prioritised for the coming years and where in your opinion might innovation and innovative solutions be required to unblock and enable successful outcomes?

Stakeholders consistently note the need for stronger cross-system coordination, particularly between ESB Networks, the TSO, regulators and local authorities. They highlight the increasing interdependence of electricity, transport, heat, housing and digital infrastructure development, and call for more integrated planning to avoid delays and inefficiencies. Some respondents stress that planning and permitting processes must be streamlined and that shared datasets and common tools will be essential to coherent system-wide decision-making. Climate resilience is also identified as a system-level challenge, with respondents noting the importance of coordinated severe-weather forecasting, spares, logistics and mutual-aid arrangements. Several responses emphasise the need for integrated digital architectures, interoperable standards, and coordinated flexibility frameworks that allow the system to operate more efficiently and responsively.

### ESB Networks Response:

Collaboration between ESB Networks and EirGrid to advance innovative solutions to benefit customers on both the transmission and distribution systems has been taking place for many years. The Technology Toolbox is designed to deliver enhanced electricity grid solutions which recognises international best practice and in collaboration with ESB Networks, the TSO-DSO Technology Toolbox[1] is progressing several innovation projects, with examples including installation of Dynamic Line Rating (DLR) sensors on live HV lines using drones, HV switchgear technology, and innovative installation methods for underground cables.

ESB Networks also engages with Local Authorities and other State agencies to understand their decarbonisation plans and support the implementation of new electrification-enabling solutions, where possible. The Electrification team also works closely with property developers, Government Departments and local authorities to design electrical infrastructure solutions that will accommodate electrified heating and transport and the National Code of Practice for Customer Interface is regularly updated to share required practice for all customers.

ESB Networks will continue to work closely with EirGrid on innovative TSO-DSO solutions and will continue to engage with Local Authorities, Government Departments, State agencies and other stakeholders to support national electrification plans and to advise on solutions with a whole-of-system perspective as appropriate.

ESB Networks is already part of a mutual association called NEWSAC (North, East, West, South Area Consortium) which comprises all the electricity companies in Ireland and the UK. These companies provide mutual aid to support each other in the aftermath of storms. Additionally, ESB Networks is part of a recently approved European DSO Grid Emergency (EDGE) Agreement between the E.DSO member organisations, which includes a system for sending and receiving aid requests with an overall ethos of aid being voluntary and non-profit.

1 EirGrid - Shaping Our Electricity Future Roadmap: Version 1.1 Table 25: Networks – Ireland multi-year plan, p.117

## 5. What innovations and developments in adjacent industries are you aware of that may be transferrable to the energy sector that you feel should be explored further by ESB Networks?

Respondents point to telecoms, manufacturing, construction, aviation and finance as sectors offering valuable lessons for ESB Networks. Examples include:

- telecoms network virtualisation and automated fault response
- manufacturing's use of predictive maintenance and standardised processes
- construction's adoption of Building Information Models (BIM) and integrated capital planning
- aviation's telemetry-driven asset monitoring
- finance's risk-modelling frameworks

These innovations highlight the potential for ESB Networks to deploy predictive analytics at scale, adopt modular and standardised build approaches, strengthen governance and transparency, and improve capital efficiency through scenario-based planning and risk-based investment techniques.

### ESB Networks Response:

ESB Networks undertakes extensive horizon-scanning to identify innovative solutions and ideas that are emerging elsewhere in the electricity industry and in adjacent sectors. For example, inspired by the construction and water industries, we have initiated a pilot project to evaluate the combined use of artificial intelligence and ground penetration radar to visualise underground infrastructure, as a potential solution for accelerating engineering projects. ESB Networks, through the Free Electrons programme, engages with start-up companies from many different industries to identify potential solutions that may be transferrable to our industry.

ESB Networks thanks respondents for highlighting additional areas where transferrable innovative solutions may exist. The areas noted by respondents for consideration by ESB Networks will also be considered over time as we explore new solutions for our business and our customers.

## 6. Which digital or data-driven approaches (e.g. analytics, automation, AI, digital twins etc.) hold the most potential to improve efficiency, deliver insights or enhance customer outcomes across the electricity system in the coming years?

Stakeholders strongly advocate the deployment of digital twins, predictive analytics, AI-enabled decision making tools and workflow automation across ESB Networks. Respondents emphasise that digital twins must be operationally meaningful, supporting scenario analysis, hosting capacity calculations, reinforcement planning and resilience assessments. Predictive maintenance and weather integrated asset risk modelling were widely cited as high-value capabilities. Several submissions highlight the potential of AI-enabled workforce scheduling to reduce travel, improve restoration times and enhance field productivity. Automation of connection assessments, design validation and data ingestion is also seen as critical to improving process consistency and speed, reducing manual rework and enhancing data quality across the asset lifecycle. Underpinning all digital innovation, stakeholders stress the need for strong data governance, model explainability and cybersecure data-sharing frameworks.

### ESB Networks Response:

ESB Networks has been exploring and will continue to explore the use of digital twin technology to support its business activities. Digital twins of sections of the distribution network developed as part of recent trials demonstrated the capability of the technology to enhance vegetation management, improve resilience assessments and assess potential impacts if the 38 kV network was upgraded to 110 kV using existing line corridors. Advancements in the use of drone technology and network data capture, including LiDAR data, provide opportunities for the further development of digital twins and insights to support the effective management of the overhead electricity network.

As noted by respondents, the area of data governance and management is critical to the adoption of digital twins and supportive technologies across ESB Networks and efforts are ongoing to develop data governance frameworks supportive of these innovative technologies.

ESB Networks is actively exploring a range of predictive analytics models and automated processes to enhance network performance and customer outcomes. This includes the use of computer vision machine learning, AI-driven predictive maintenance, and weather informed forecasting models to better anticipate faults and optimise asset management. The automation of connection assessments to improve speed, consistency and data quality across the process is also being explored, reflecting our continued commitment to digital innovation and data driven decision making.

## 7. Are there areas where enhanced data sharing would support electrification or unlock benefits for customers and communities through greater transparency?

Respondents express strong support for enhanced transparency of network capacity, constraint maps, connection queues and reinforcement pipelines. They highlight that such data would support developers, local authorities, communities and large energy users in planning investments more effectively. Stakeholders support the responsible expansion of API-based data-sharing, tiered access models and clear governance arrangements to safeguard privacy and security. Several submissions emphasise the need for transparent operational signals related to flexibility services and non-firm access arrangements, noting that clearer visibility of system conditions will support electrification, flexibility participation and more efficient use of network assets.

### ESB Networks Response:

ESB Networks continues to monitor advancements and solutions adopted by other DSOs to enable sharing of data and / or the development of solutions for our customers that integrate seamlessly with ESB Networks' data sets. An initial proof-of-concept solution to provide enhanced visibility of network capacity and aid the connection application process was well received by collaborating customers and further consideration of enduring solutions are ongoing including those to create and populate the enabling data sets.

ESB Networks remains committed to data sharing to support industry-wide practices and efficiencies but stresses the need for any enduring solutions implemented to reflect best and appropriate data governance, transparency and security practices.

## 8. Where do you see the strongest opportunities for collaborative innovation across the industry to enable a Net Zero electricity network by 2040 and a Net Zero society by 2050? Please outline your perspective on the challenges that need to be resolved, the potential partners that would need to be involved and the necessary timescale for solution delivery.

Stakeholders emphasise that the energy transition requires deep coordination across the TSO, DSO, regulators, local authorities, transport agencies, housing bodies and industry stakeholders. They identify opportunities for integrated digital planning tools, multiagency electrification strategies, flexibility markets, and regional industrial decarbonisation clusters. Some respondents propose a national "capacity-to-connect" framework to align spatial development plans, network reinforcement pipelines, connection processes and capacity mapping in a unified model. Others highlight opportunities to develop joint initiatives around resilience, weather modelling and emergency response. Respondents also see value in international collaboration and knowledge sharing to accelerate the adoption of proven innovations.

### ESB Networks Response:

As noted in our response to feedback on "Whole of Energy System Challenges", collaboration with EirGrid as TSO, and Local Authorities is ongoing to support electrification and the delivery of innovative solutions. Similarly, as outlined in relation to "Data Sharing", ESB Networks will further consider the "capacity-to-connect" concept which may align with the early proof-of-concept on network capacity visibility as referred to previously.

ESB Networks agrees that collaboration will be an important feature of innovation progress over the coming years to leverage knowledge and insights that already exist and looks forward to further engagement with respondents as and where such projects are further developed and discussed.

## 9. Are there specific issues for your organisation or sector where innovative solutions are required, that you would like to bring to the attention of ESB Networks, and why?

Stakeholders raise several sector specific issues, including the need for faster and more predictable connection timelines for housing, EV infrastructure and industrial development. Developers and industry representatives request clearer visibility of local capacity constraints and reinforcement triggers. EV infrastructure providers highlight challenges with private wires, permitting processes and the need for support for co located storage. Industrial respondents emphasise the need for viable frameworks for flexible industrial demand, including non-firm import capacity aligned with renewable availability. Some stakeholders call for improved engagement mechanisms for SMEs, commercial customers, and community energy groups to ensure that electrification benefits are widely accessible.

### ESB Networks Response:

Several innovation projects are ongoing which are exploring solutions to the points raised in responses to the consultation. The Timed Connections pilot will provide insights into how increased capacity for customers at off-peak times can be managed effectively and will pave the way for more complex flexibility offerings. The Electrification Team continues to engage with industrial sectors to provide advice and guidance on electrification solutions while ESB Networks has also established a specialist Network Capacity Deployment team which is accelerating the delivery of network infrastructure projects to support timely connections and enhance capacity for customers. ESB Networks continues to engage with the Department of Climate, Energy and the Environment (DCEE) in relation to the implementation of private wires legislation to better understand the implications for both ESB Networks and our customers, and to consider the internal changes that will be required to our policies and procedures. ESB Networks will share progress on innovation projects at appropriate events and engage with interested parties in due course.

## 10. Have you any recommendations for ESB Networks as to how we can improve how we innovate to deliver enhanced value to all our stakeholders over the period 2026-2030?

Respondents recommend strengthening innovation governance, adopting structured stage gates, defining clear value hypotheses, and improving the discipline of transitioning successful pilots into operational practice. They highlight the importance of embedding innovation within core processes such as asset planning, scheduling and connection assessment rather than treating it as an adjacent function. Several submissions emphasise the importance of workforce enablement, change management, training, and contractor readiness. Standardisation of designs, templates and processes is identified as a powerful lever for improving throughput and consistency. Stakeholders also encourage ESB Networks to publish reports on pilot outcomes, business-as-usual (BAU) decisions and measurable benefits to maintain trust and transparency.

### ESB Networks Response:

ESB Networks updated and published its new Innovation Strategy and supporting governance process in 2025. Innovation in ESB Networks focuses on enhancements to existing internal and customer processes in addition to new innovative solutions, technologies and services. The updated Innovation Strategy clarifies where and how innovation is delivered across the business.

ESB Networks will continue to share insights and learnings with stakeholders, at the most appropriate stage and through the most appropriate channel.

## 11. In your view, what metrics or outcomes should ESB Networks use to measure the success of its innovation programme?

Stakeholders recommend adopting outcome focused metrics that reflect improvements in customer experience, network performance, operational efficiency and system value. Suggested measures include reductions in connection lead times, unplanned outage minutes, restoration times during severe weather, reactive maintenance levels and operational carbon intensity. Some respondents highlight the importance of tracking hosting capacity improvements, reinforcement deferral value, flexibility delivered and cost per MW connected. From a governance perspective, stakeholders encourage ESB Networks to measure the proportion of innovation projects transitioned to BAU, the pace of decision-making, and improvements in data quality and transparency.

### ESB Networks Response:

ESB Networks is exploring how best to measure the impact of its innovation programme, recognising that impact often emerges over time and is influenced by a combination of policy, technological progress and societal change, rather than solely by the transition of solutions into business as usual. The metrics proposed by stakeholders, many of which are already used where data is available, will be kept under review as new innovation measurement frameworks are developed. In line with the Innovation Strategy, the Innovation Team is developing clearer KPIs, including measures of successful transition to BAU, to ensure the outcomes and benefits of innovation are clearly demonstrated for customers and ESB Networks.

## 12. What barriers (technical, regulatory, financial, cultural) do you see as most significant, and how can they be overcome?

Respondents identify several significant barriers, including limited LV visibility, fragmented data systems, regulatory uncertainties, long lead times for equipment, supply chain constraints and cultural resistance to adopting new processes. They recommend that ESB Networks and the wider energy ecosystem strengthen data governance, adopt common data standards, and use regulatory sandboxes to trial dynamic connections, non firm capacity frameworks, new flexibility mechanisms and enhanced data-sharing models. Several stakeholders emphasise the importance of improving workforce capability, ensuring clear ownership of new tools and processes, and embedding innovation into operational workflows to ensure sustained adoption.

### ESB Networks Response:

Projects are already underway across ESB Networks to advance many of the points raised by respondents, and many of the suggestions are already addressed within our PR6 Business Plan and our new Delivery Strategy. LV monitors are being deployed across the network, and the LV Planning team is positioned to prioritise network investments in line with electrification trends. The Network Capacity Deployment team is adopting new approaches to accelerate the delivery of network capacity to meet the needs of customers, leveraging supply chain efficiencies where possible. The DMSO is progressing plans, commercial arrangements, community engagement initiatives to activate flexibility, and systems and frameworks for data governance and data sharing are being considered across the business as a whole. Processes are already rolled out across ESB Networks to support new materials introduction, and the capability of the National Training Centre has been expanded to support increased training of the expanding workforce.

The central innovation team works with business units and individuals across ESB Networks to develop and enhance innovation capability, and to build a strong innovation culture. Ongoing engagement and collaboration with academic institutions, peer DSOs, the start-up community and stakeholders is critical to this approach.

ESB Networks will continue to design its innovation projects incorporating strategies to mitigate, where possible, known barriers to adoption and to develop plans for business transition that will be considered as part of its project governance. We will also continue to engage and collaborate with stakeholders to identify and process ideas, and unlock innovation in the company.

## 13. ESB Networks communicates on innovation and associated projects in a variety of ways - please outline what works best for you in terms of channels or formats of communication and why?

Stakeholders value clear, concise and structured communication, including technical updates, webinars, targeted workshops and searchable online resources detailing innovation activities and outcomes. They highlight the importance of pilot result summaries and transparent BAU adoption decisions. Respondents recommend tailored communication for local authorities, communities, SMEs and large energy users, as well as practical demonstrations and site visits for credibility and shared learning. Digital dashboards and live data tools are viewed as important enablers of transparency and trust.

### ESB Networks Response:

ESB Networks appreciates the feedback received on preferred communication channels for innovation updates. We are enhancing stakeholder communications by redesigning elements of our website to provide clearer, more structured and user friendly innovation content. As new data sharing tools and practices are developed, these will be clearly signposted online. Planning is also underway to host an Innovation Forum in late 2026 to facilitate direct engagement around ongoing and recently completed projects. We will continue to refine our communication approach over time to ensure it delivers maximum value and transparency for customers and stakeholders.

# Conclusion

The electricity network has a critical role to play in enabling Ireland's journey to Net Zero, and the impact of ESB Networks' innovation activities has the potential to extend far beyond our own organisation. By evolving our Innovation Strategy, focusing on key system challenges, and delivering flagship innovation projects, we aim to support Ireland's energy transition while fostering collaboration across the wider energy ecosystem. We are committed to accelerating the connection of renewable generation, supporting the electrification of heat and transport, and enhancing network resilience. Implementing innovative ideas and technologies will deliver tangible benefits for our customers, communities and the electricity system as a whole.

ESB Networks wishes to express its appreciation to all stakeholders who engaged with the 2026 Innovation Consultation. The breadth and depth of responses received reflect the growing importance of innovation in enabling Ireland's transition to a secure, resilient and decarbonised electricity system. All submissions have been reviewed carefully and assessed using a structured approach to determine how stakeholder feedback informs the 2026 Innovation Programme and future innovation planning.

Our innovation programme is dynamic and continuously updated to reflect system needs. We can confirm that many of the themes raised by stakeholders are already addressed within projects progressing in the 2026 Innovation Programme or within other ESB Networks programmes. Where stakeholders have identified new opportunities, ESB Networks will explore these during 2026 where feasible, including through targeted innovation activity or through collaboration with industry partners. In other cases, feedback will be considered for inclusion in future innovation cycles where longer-term development or further system readiness is required. Some suggestions have been considered but will not be prioritised in 2026 due to competing delivery, resourcing or system priorities. Where feedback aligns with work underway elsewhere in ESB Networks, these insights will be shared appropriately across the organisation.

This consultation plays a key role in shaping ESB Networks' innovation direction, governance and project portfolio, and we remain committed to demonstrating how stakeholder input influences our decisions, priorities and delivery. We thank all stakeholders for their time and constructive input. Your feedback will inform future revisions to our Innovation Strategy and the evolution of our innovation programme over the coming years, and we welcome continued engagement through the sharing of insights, proposals for collaboration, and participation in future innovation initiatives.

To get in contact or for any additional information, please contact ESB Networks' Innovation Team via email: innovationfeedback@esbnetworks.ie

| Term | Definition |
|---|---|
| ACCC | Aluminium Composite Core overhead line conductors |
| AI | Artificial Intelligence |
| API | Application Programming Interface |
| BAU | Business As Usual |
| BIM | Building Information Modelling |
| CRU | Commission for Regulation of Utilities |
| DECC | Department of the Environment, Climate and Communications |
| DCEE | Department of Climate, Energy and the Environment |
| DER | Distributed Energy Resources |
| DLR | Dynamic Line Rating |
| DNO | Distribution Network Operator |
| DSO | Distribution System Operator |
| EDGE | European DSO Grid Emergency Agreement |
| EV | Electric Vehicle |
| GB | Great Britain |
| HTS | High Temperature Superconductor |
| HV | High Voltage |
| KPI | Key Performance Indicator |
| LCT | Low Carbon Technologies |
| LDES | Long Duration Energy Storage |
| LiDAR | Light Detection and Ranging |
| LV | Low Voltage |
| MV | Medium Voltage |
| NEWSAC | North, East, West, South Area Consortium |
| RES | Renewable Energy Sources |
| SME | Small and Medium-Sized Enterprise |
| TAO | Transmission Asset Owner |
| TSO | Transmission System Operator |
| UK | United Kingdom |

ESB NETWORKS
Three Gateway,
East Wall Road,
Dublin 3,
DO3 R583

Tel 1800 372 757 or +353 21 2386555
Email esbnetworks@esb.ie

**esbnetworks.ie**