Electricity Transmission & Distribution

The Challenges and Opportunities

Elected Members Training Webinar - January 2026

Q&A Sheet

Speaker: Jennifer Boyle, EirGrid	
Questions	Responses
How will increased interconnector capacity, such as the proposed Ireland-France interconnector contribute to energy security and the integration of renewables?	The Ireland – France (Celtic) interconnector allows a way for us to more efficiently manage our electricity demand & supply and connect into the European market. When we need to buy electricity, we can use the European market as a resource and when we have a surplus we can sell back. Important to note that when you think in terms of peak demand in morning and evening that with the time difference, our peak is different and so we can buy at our peak demand times which coincide with non-peak times on the continent. Similarly, as we generate wind and solar power, which can vary depending on weather and time of year, and may be at off peak times, then we can sell this excess power into the European market. It's balancing that supply and demand which is one of the key roles of EirGrid, as every minute of every day, electricity is managed throughout Ireland, and these interconnectors provide a wider resource for that buying and selling. This allows security of supply and wider access to market.
There is no mention of Hydrogen-powered generation on the map. Is there any plan to convert excess wind to Hydrogen to boost generation when wind is not available?	*Hydrogen power* referred to as Pumped Hydro Energy Storage (PHES) Capture of energy at one time to use later using flow of water technology. We have assumed that existing pumped hydro energy storage (PHES) will continue to operate in Ireland by 2030, and that there will be growth in battery energy storage capacities (BES) is also expected. The large scale Silvermines hydro project (ENTSOE TYNDP project 1025) has also been deemed a PCI project by the European Union and has been included in our analysis.

When will Celtic Interconnector be finished? **Also, has there been research on the reduced cost of electricity?**	The commissioning date is expected for spring 2028 Due to ongoing changes in the market at this stage it is too early to confirm figures.

Speaker: Sinéad Dooley, EirGrid	
Questions	Responses
Are the community benefit funds associated with new infrastructure projects assessed on their effectiveness and are they generally operating with good success and buy in from local communities?	There is great buy in from communities. We have the Community Benefit Fund for the Celtic Interconnector and last week we opened a new fund as part of our north Connacht new infrastructure piece. Laois & Kilkenny have a fund as well and we are in the process of putting one in place for East Meath, North Dublin and Fingal. They will be measured on their effectiveness, and we try to ensure that everybody is included whether it's a men's shed or an arts centre and that's the beauty of having it co-designed by the local community because communities' needs vary significantly. We are developing a sub-station in East Wall Road in Dublin and the needs of the community there are very different to the needs of the community on the Laois – Kilkenny project. It's essential to bring the communities with you as you design it to ensure that the impact is measured by the local community and how impactful and beneficial it is to them.
Did EirGrid engage with communities developing onshore and offshore wind energy for example Kellystown Wind Farm area or Clogherhead, Co Louth? As an elected rep it seems that it's the responsibility of the private operators to impart info and that's perceived as them v us in communities. This is important for locals to understand why sustainable energy is needed in high density regions.	It's important to differentiate between our responsibility in terms of delivering the infrastructure versus a developer's own projects and there is a responsibility on everybody to engage on their specific project. EirGrid are solely responsible for the public engagement around the infrastructure we deliver. In terms of the off-shore it's a bit more complex because we are the asset owners and the developers for the off shore infrastructure including the platforms that are out at sea and the cables that will be brought to shore to facilitate the integration of the renewable energy – that's our responsibility and we are currently engaging with marine users and onshore stakeholders around the south coast where Designated Marine Area Plans have been developed. There is also then the developer of the actual turbines and the windfarm and they will have their own engagement strategies and plans in place, and they will be responsible for engaging on the windfarm out at sea. This is the same

(answer cont'd from page 2)	with onshore projects whether battery storage or solar/wind farm developer, the responsibility lies solely with that developer. This can be confusing for the public and we try to differentiate between the two when we are out but ultimately when our EirGrid team are on the door they'll be asked questions about a development up the road. We do signpost and advise to reach out to the developer and ask them the questions. EirGrid is a state-owned company delivering on behalf of the Government and that's where our engagement sits.
North-South Interconnector - Why have EirGrid continued to pursue over decades at this stage with overgrounding, working against the needs of the local communities seeking undergrounding?	The option of undergrounding the North-South Interconnector has been comprehensively assessed on several occasions. In 2011, 2018 & 2023 international expert reports reiterated the findings that an overhead line remains the most appropriate option for this critical infrastructure. In essence, the North-South Interconnector would require too much power to be carried over too far a distance to make it viable to be placed underground. It is too critical a project to take risks or experiment with and therefore must go overhead. EirGrid will only underground projects where it is technically feasible and achievable. The NSIC does not meet these criteria.
Who do we contact to invite EirGrid to attend a local authority meeting?	We have a wide variety of skilled employees expert in a range of topics and Sinéad can ensure the relevant team members attend depending on the topics to be discussed.

Speaker: Sean Mulvey, ESB	
Questions	Responses
How is ESB Networks working to ensure that their infrastructure investments align with broader government plans around housing delivery and general economic development, to prevent bottlenecks in new connections?	We have a systems planning group and our planners model how the network is changing over time and consider how housing has an impact on our local systems. Our planners look at the actual system, forecast the system growth and then from that they make our strategic decisions as to where the network needs to change and how that increase in demand will affect the local network. This does two things…it follows natural growth but also forecasts growth demand between now and 2035/2040. So part of the role of ESB Networks is to ensure that by 2040 our net zero targets are met and that assets being built now give us that capacity into

(answer cont'd from page 3)	the future. If there is significant growth in a particular area, then whatever assets are built now, will ensure that we can meet those growth demands. The system planners group also look at local development plans and national development plans and how these impact local areas and the anticipated demand over the years ahead.
In terms of resilience of the Grid, what is the solution for the many rural areas to which electricity is carried by wires suspended on poles which are subject to damage from storms? **Is it cost-efficient to underground the wires?** **What is done in other countries on Atlantic fringe? Scotland? Norway?**	This is a very big challenge. Going forward we will be undergrounding a significant portion of what we have to deliver, however it is not practical from a cost perspective to underground the entire network. Our asset teams are doing a lot of work in terms of the overhead line network to help ensure resilience. A big part of this is forest management and we have full time staff working now with different state bodies to look at forest management as well. The network itself held up reasonably well however a lot of damage was caused by trees and flying debris. The 110kv, 220kv and 400kv networks are extremely resilient as they are steel structures, well maintained and robust. The lower voltage networks suffered most of the damage. The growth of trees over time has a big impact on the network so forest and tree management is critical, and we now have for a dedicated senior manager for this. We have also significantly increased the amount of drone surveys that we do as well as Lidar surveys carried out by helicopter to look at the overhead line network. Drones take images and look at asset health along with AI models. They also look at vegetation growth along the network as well so there is huge increase in drone survey activity to help ensure assets can withstand these storms going forward.
When you reference "mixed" substation, does that mean a mix of different voltage types being handled?	That is correct. The larger substations have three different operating voltages. 110 kV, 38 kV and MV.
What impact has the development of data centres in the Meath – Louth areas, had on the grid network and are there any plans to use the excess heat for alternative energy use?	Most Data Centres located in and around Co. Dublin and Meath are connected to the Transmission System and not the Distribution System. These would be considered large energy users which require a higher MIC level. Unfortunately, excess heat from Data Centres is not part of ESBN's work programme.

Does the surface of the new substations need to be solid concrete? Could more permeable surfaces be used to mitigate run-off / flooding?	Our standard substation surface (except roads) is crushed rock. This generally meets our Earth Potential Rise (EPR) standard levels within the substation compound.
Is there a timeframe for installation of overhead lines in Drogheda for DART +?	At the moment I'm not aware of any ESBN overhead line network being installed to facilitate the Dart + project
After identifying a site, how long does it take to build a 38kv and 110kv substation?	When the planning process is included into the schedule it will take approx. 27 months for a 38 kV substation and 36 months for a 110 kV substation

Speakers: Jennifer Boyle, Sinéad Dooley and Sean Mulvey	
Questions	Responses
With the increasing electrification of heating and transport, are we making ourselves more vulnerable to cyber-attack or electro-magnetic pulse disabling the infrastructure of the entire state?	**Jennifer:** These issues are highly managed and everything we do is hugely planned, including disaster recovery. These are not the type of plans that are made public but are always provided for and is something that is always thought of. Our aim to have network resilience includes cyber issues as well as storms and the impacts of the world we live in today where a cyber-attack is a potential threat. **Sinead:** Cyber security is a very real issue to deal with and part of our submission under PR6 sought resources and expertise to deal with these issues. This is on the radar of transmission system operators right across Europe and is also a key focus with EirGrid. **Sean:** From a cyber point of view our distribution control centres are completely isolated from general internet connections and are fully self-contained units and so highly unlikely to be impacted by cyber-attacks. Control centres are extremely well insulated against external networks which is a big part of how they operate. If there is an incident on a generation unit, we have black start scenarios where we re-start the networks. Also, from an ESB Networks point of view, we have full time

(answer cont'd from page 5)	expert staff who work with us and monitor these kinds of international threats/scenarios and look at the security of the networks as well. It is something that we take very seriously.