

GRID25

Grid25 is a long term strategy for the development of the transmission network to provide a safe, secure and affordable electricity supply throughout Ireland. This strategy will support economic growth and provide the infrastructure to enable Ireland to realise its renewable potential and achieve the challenging 2020 target of having 40% of our electricity generated from renewable sources.

The capital cost of all Grid25 projects currently in the public planning or construction phase amounts to over €900m. The internal organisation structure within Grid Development and Commercial (GDC) has been revised and we are currently in the process of augmenting the existing teams by means of the current recruitment drive.

In addition to the existing developments Grid25 will require:

- The construction of approximately 1,150km of new circuits representing an increase of about 20% on the total length of the existing network
- The uprating of 2,300km of the existing transmission network
- Connection of about 4000MW of renewable generation to the Grid to enable the government target of 40% of electricity to be generated from renewable resources by 2020

GRID25 PROGRAMME MILESTONES ACHIEVED

The tables below show key recent milestones achieved:

Recent Project Agreements

- Shannonbridge Ikkerin T line uprate
- Kilteel 110kV Station - Reactive compensation
- Charleville - Mallow 110kV line refurbishment
- Great Island-Waterford No.1 110kV Line – uprate
- Arva-Shankill No.2 110kV Line - New Line
- Killoonan 220kV Station - 4th 250MVA 220/110kV Transformer
- Cahir - Doon 110kV line uprate (inclusive of busbars)

Recent Energisations

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| • Garvagh Windfarm | 25th May 2010 |
| • Corderry - Garvagh 110kV Overhead Line | 25th May 2010 |
| • Kingsmountain Wind Farm Phase II | 16th June 2010 |
| • Edenderry Peaker | 30th June 2010 |
| • Aghada Raffeen 220kV circuit | 18th July 2010 |



PROGRAMME MANAGEMENT OFFICE (PMO)

The Programme Management Office is a new function within GDC and has the role of coordinating the delivery of the Grid25 programme. It was formally established in April 2010 and is now nearly fully staffed. The PMO team for Grid25 is responsible for:

- The coordination of Grid25 policy and strategy.
- Monitoring and reporting on the overall Grid25 programme
- Providing specialist training and support to the regional groups in areas such as public planning, IPP coordination, wayleaving and contract management
- Interaction on Grid25 with stakeholders at national and regional level

The following are the team within the PMO:

- **Aidan Corcoran**, Manager, Grid25 Programme
- **David Williams**, Manager, Support and Training
- **Des Cox**, Senior Coordinator Public Planning
- **Enda Feeley**, IPP Lead Coordinator
- **William Mongey**, Senior Coordinator Wayleaves
- **Matthew Staunton**, Senior Programme Coordinator
- **Deirdre Nagle**, Solicitor, Legal Department
- **Gael Gibson**, Senior Public Planning Consultant
- **Philip Godfrey**, Senior Contracts Specialist
- **Patricia Kelly**, Programme Coordinator
- **Kim Tierney**, Programme Administrator

GRID25 PROJECT UPDATES

Aghada – Raffeen 220kV Circuit

On July 18th the new Aghada – Raffeen 220kV circuit was energised for the first time. This project has had a long history, and many EirGrid staff will recall being involved with it at different stages. The process included several challenges to the planning consents (which were first granted in 1997) and several reviews of the project along the way. It is a complex project involving overhead line, underground circuit and a submarine cable crossing of Cork Harbour.



Cable laying in Cork Harbour



Aghada - Raffeen cable construction coming onshore

The Aghada – Raffeen project is a critical element of the overall development in the Cork region, which has also seen the connection of two new combined-cycle gas turbine (CCGT) generation plants, requiring new 220kV transmission stations at Longpoint (ESB Aghada plant) and at Glanagow (BGE Whitegate plant), and two associated 220kV cable circuits. The fourth circuit is the Glanagow – Raffeen 220kV circuit, also crossing Cork Harbour in deeper waters, which is due for completion in August 2011. These projects taken together, represent a transmission investment of €160m in the Cork Harbour area.

Flagford – Srananagh 220kV Project

The Flagford - Srananagh 220kV project was granted planning permission in 2002 and involves a new 220kV line from Flagford 220kV station to a new 220/110kV substation in East Sligo (Srananagh) and associated 110kV line developments. This project is an essential reinforcement for the west and north west regions.



Flagford - Srananagh 220kV Project

The 220kV station and all the 110kV line work was completed last year but there remained significant objections to completing the 220kV overhead line section. Since its inception the project has met with very entrenched local resistance, particularly around the Boyle area, to the 220kV overhead line. This resistance has now eased somewhat in recent months and access is being obtained from the landowners to a significant number of the remaining tower locations. The project is now 80% complete and it is expected that it will be energised early in the New Year.

Dalton - Galway 110kV loop-in Cashla 220kV Station

Construction started on this 23km long 110kV circuit in December 2009. This circuit is required in order to reinforce the electricity supply to Galway and Mayo. The line consists of:

- 18km of wood pole sets
- 5km of a new design of double circuit tower.
- Two new line bays are required in Cashla 220kV Station
- There are approx. 90 wood pole sets and 35 steel lattice towers in total on the line

The factory acceptance testing of the new tower was completed in July 2010 and the towers are presently being installed on site. Construction is due to be completed in December 2010.



Dalton - Galway 110kV - Photomontage of double circuit lattice tower

Tarbert - Tralee 2 110kV Project

Tarbert - Tralee 2 is a new 46km 110kV line which will reinforce the electricity supply to Kerry.

- The project started construction in March 2010 and all pole sets/tower installations are scheduled to be finished shortly
- Stringing of the line is scheduled to take place in Q4 2010 and we are on track for completion in December 2010



Tarbert - Tralee 2 110kV - Wooden poles

Grid25 South West Regional Stakeholder Forum in Killarney

On 23rd July 2010, EirGrid hosted the first Regional Stakeholder Forum in the South West to promote the requirement for transmission infrastructure build in the region with significant stakeholders. The objectives of the Forum were as follows:

- To promote a common understanding among stakeholders in relation to the need for infrastructure build
- To establish relationships between EirGrid and all major regional stakeholders who reflect the views of the wider energy sector and have an interest in the work of EirGrid
- To develop a deeper understanding of the challenges associated with infrastructure build



Dermot Byrne, CE EirGrid, in conversation with Sean Kelly, MEP, Michael Moynihan, TD, Andrew Cooke, GDC Director EirGrid and David Stanton, TD, at the South West Regional Stakeholder Forum in Killarney.

The event was attended by over 70 people and was very successful in relation to participation and feedback. Topics discussed included:

- The coordination of Grid25 policy and strategy
- Interaction on Grid25 with stakeholders at national and regional level
- Offshore as compared to Onshore generation
- New approaches to public consultation

HTLS Conductor – New Technology

HTLS is a new type of conductor which is being pioneered on the Killonan – Knockraha 220kV line. Restraining started in July 2010 and is due to be completed by the end of the year.



Crew restringing HTLS Conductor

Grid25 Strategy Presentation at Euro Science Open Forum – Turin July 2010

The Grid25 strategy and the challenges facing the rollout of grid infrastructure was presented by Aidan Corcoran at the Euro Science Open Forum held in Turin in July. Turin is European City of Science for 2010 and it is Dublin's turn in 2012.

Aidan Corcoran spoke in the session 'Taming the Wind – a Strategic Option for Europe' along with Paul Dowling from SEE Renewables, Niels Clausen from the National Laboratory for Sustainable Energy Denmark and Professor Igor Shvets from Trinity College Dublin.

The theme of Aidan's presentation was how EirGrid and other European transmission system operators are building the transmission infrastructure necessary to support large-scale wind generation.



Aidan Corcoran - Manager - Grid25 Programme