



Quarterly Review

OF THE ELECTRICITY SYSTEM



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Foreword

EirGrid has launched its advertising campaign “Securing Ireland’s Electricity Supply” to heighten public awareness of the infrastructure developments underway in Ireland at present which are of key strategic importance to the country as a whole.

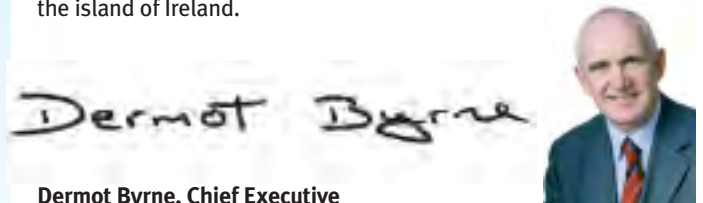
Following two years of close coordination between EirGrid and SONI, in cooperation with the Regulatory Authorities and market participants, the All-island Harmonised Ancillary Services went live on 1st February 2010, establishing common arrangements for Ancillary Services and Other System Charges.

The SEM Committee has outlined proposals for SEM Regional Integration and work is now progressing on developing solutions for a day-ahead price in the SEM, intraday trading and SO-SO trading.

EirGrid has published the final set of results for the ITC Program Firm Access Quantities 2010-2023 to provide generators with additional information on firm connection offers under the Gate 3 Offer Programme.

The final tranche of funding for the East-West Interconnector was secured in March 2010 when the European Commission confirmed that it would provide a €110 million grant to fund the project.

EirGrid has also commissioned a report from Pöyry on Future Low Carbon Generation Options for the All-island market in 2035 and beyond. The aim of the report is to contribute to an informed debate on the possible future generation portfolio on the island of Ireland.



Dermot Byrne, Chief Executive

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L-R: Mr Aidan Skelly, CFO, Mrs Bernie Gray, Chairperson and Mr Dermot Byrne, CEO at the launch of EirGrid's Annual Report 2009.

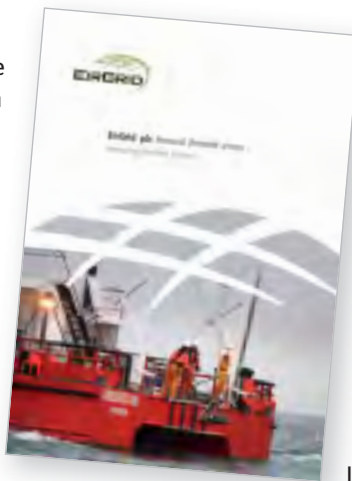
EirGrid launch Annual Report

EirGrid's strategy for Ireland's future electricity transmission network, Grid25, is to create up to 300 additional jobs over the next five years, EirGrid Chairperson Bernie Gray said at the launch of the company's Annual Report in April.

She said this underlined the crucial nature of EirGrid's work on infrastructure which would support high quality power supplies in all regions, facilitate renewable energy, and enable high tech industries to be attracted and retained.

The EirGrid 2009 Annual Report detailed a number of significant milestones during the year, said EirGrid Chief Executive Dermot Byrne, including:

- The lodging of a planning application with An Bord Pleanála for the Meath-Tyrone 400kV Interconnection Development
- The commencement of offers to connect 3,900MW of new generation, mainly wind farms, under the Gate 3 offer process
- The granting of planning for the East-West Interconnector that will link Ireland's transmission system with that of Wales and signing of the construction contract for the project.
- In Sligo the Srananagh 220/110kV substation was added to the network.



- Acquisition of System Operator for Northern Ireland (SONI).

The Annual Report, which is available on the EirGrid website (<http://www.eirgrid.com/aboutus/publications/>), shows that the company's operating profit for the year to September 2009 was €9.4 million, compared to €8.6 million for the nine months to September 2008.

Revenue for the year to September 2009 was €410.7 million, compared to €282.7 million for the nine months to September 2008. The increase in revenue was largely due to the acquisition of System Operator Northern Ireland (SONI).

The Chairperson, Ms Gray, said that Grid25 will ensure that each region has access to reliable and high quality power supplies. It will facilitate access to Ireland's abundant renewable energy resources, and will provide major benefits for security of supply and sustainability.

It will involve doubling the capacity of the national bulk transmission grid by 2025. This will be achieved through a combination of upgrading the existing network and the construction of new transmission infrastructure.

Among the jobs which will be created in the next five years as a result of the Grid25 project:

- Approximately 30 jobs in EirGrid in the areas of engineering, project management, planning, design and other specialist areas, with recruitment beginning this year.
- Employment in building power lines and substations around Ireland which is expected to ramp up over the five year period to an additional 200 jobs.
- A minimum of 50 additional jobs in the professional services sector, such as outsourced specialist skills supporting Grid25, in the first two years.

In addition to this, potential also exists for thousands of jobs that can be created through the successful implementation of Grid25, which will create a platform for economic growth. Through enabling high quality bulk transportation of power the Grid25 project will provide support for sectors such as renewable energy, the pharmaceutical industry and IT, which require strong transmission of electricity, therefore delivering many more indirect jobs, commented Ms Gray.

Ice Storm hits Northern Ireland

The night of 30/31 March saw unprecedented activity on the Northern Ireland transmission network as the province was hit by a "perfect storm". Due to wet snow and high winds ice accretion on overhead lines caused over 135 transient faults on the 275kV network in a period of 15 hours. 355 circuit



breaker trip operation occurred and at one stage all 4 circuits to Kilroot Power Station tripped within a few minutes causing the loss of output from the station. At several times the combined output of Ballylumford Power Station and the Moyle HVDC link were depending on only 1 out of 4 circuits. At the height of the storm both 275kV circuits to Coolkeeragh Power Station were damaged, but SONI control room engineers had anticipated this and reduced the output from the station.

The actions of the staff in the recently refurbished control room ensured that there were no loss of supplies due to faults on the transmission system. The ferocity of the storm can be indicated by the fact that faults on the distribution system meant that 100,000 customers were off supply, some for several days as many kilometres of 110kV overhead line had to be rebuilt. NIE linesmen were assisted by additional resources from GB and the Republic.

Thanks are due to all SONI staff who worked throughout the night augmenting the normal shift complement to ensure the integrity of the network. Even the senior personnel in the control room said they had never experienced a night like this before.

Cold snap hits Ireland

The sustained cold weather in early January 2010 resulted in temperatures of -10°C and below. A new record of 4,524 MW for the Saturday Peak was recorded on 9th January. Wind generation at this time was 145 MW.

Combined action and cooperation between EirGrid, SONI, the CER and the Department of Communications, Energy and Natural Resources and the Generators helped to ensure that no load shedding was required over this unusually cold winter period.

SEM Committee decide on SEM Regional Integration

The SEM Committee commissioned a paper on SEM and regional market integration. It looked at market coupling and the SEM intraday trading and regional markets. This consultation paper was published in September 2009 with the subsequent decision paper published in March 2010.

The key decisions from the SEM Regional Integration decision paper are as follows:

1. Forward Explicit Auctions: There should be a compatible auction platform for the East West and Moyle ICs, coordinated with IFA and BritNed capacity auctions, and which allows capacity to be freely tradable on a secondary basis.

2. Day Ahead Coupling: The Regulatory Authorities will investigate the feasibility of, and bring forward proposals during the course of 2010 for establishing a day-ahead price in the SEM, (without fundamentally altering the rules) which would allow participants to trade energy with power exchanges in neighbouring markets at day ahead stage.

3. Intra Day Trading: The Regulatory Authorities will raise a modifications to the T&SC for intra-day trading by end March, from which a working group will be established to consider the modification and any alternatives, with a view to bringing forward a proposed modification no later than September 2010.

4. SO to SO Trades: It acknowledges the progress that SONI has made in its negotiations with National Grid for firm prices at the day ahead stage and it supports SONI's exploration of the possibility of trading directly on the GB power exchange for security of supply reasons.

5. Capacity Payments: The effect of the capacity payments mechanism on incentives to trade across the interconnectors will be examined and recommendations forwarded to the capacity payments mechanism medium term review group.

6. Barriers to Trade: The SEM Committee will continue to engage with regional regulators and others to discuss these matters e.g. TNUoS charging.

7. T&SC Changes and the East West Interconnector: All issues relating to the registration of the East West (and subsequent) interconnector(s) shall be advanced by the Regulatory Authorities and the SOs/SEMO in a Trading & Settlement Code Modifications Committee Working Group set up for that explicit purpose.

8. Developments at a European level: The Regulatory Authorities will participate in, monitor and liaise with the relevant ERGEG working groups, as well as strengthen links with Ofgem in GB and the Commission de régulation de l'énergie (CRE) in France.

Grid 25

Grid 25 is a long term strategy for the development of the transmission networks to put in place 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.

Grid25 was included in the new programme for Government and work has been progressing on a number of work streams in the context of its delivery. We have revised our internal



organisational structure for the efficient delivery of Grid 25 and are presently recruiting in a number of areas to augment the projects teams who are currently progressing ongoing Grid25 projects. The capital cost of all approved Grid 25 projects i.e. currently in the public planning or construction phase, amounts to €900m including for example three new 220kV stations being developed in Kerry and Cork with applications expected to be before the Strategic Infrastructure

Division of An Bord Pleanála later this year.

Further work is progressing to identify potential solutions for projects which will both facilitate the transfer of renewable energy generated particularly in the west to the major demand centres in the east and also reinforce the existing transmission infrastructure in the west. These detailed studies which take account of technology type, voltage and point to point solutions are being carried out, supplemented by economic appraisals. Further details on the schemes being proposed will be brought into the public consultation process later in the year.

Considerable work is also being carried out in the policy and environmental space where we are inputting to Regional Planning Guidelines, County Development plans and also carrying out Strategic Environmental Assessment on the Grid 25 Implementation Plan. This reinforces EirGrid's commitment to ensuring that projects are developed having due regard for the environment– we are currently in the formal SEA scoping process and wider public consultation will follow.

Meath Tyrone 400kV Interconnector development

The planning application for the Meath Tyrone 400kV Interconnector Development project was lodged with the Strategic Infrastructure Division of An Bord Pleanála in December 2009. An Bord Pleanála oral hearing will start on Monday 10th May and will be held in the Nuremore Hotel in Carrickmacross. It is expected that the hearing will last 6 weeks.

The main components of the project are as follows:

- A new 400kV substation located at Moyhill, County Meath.
- 80 kilometre long 400kV power line between Moyhill (County Meath) and Turleenan (Co. Tyrone)

- 58 kilometre long 400kV power line between Woodland (Co. Meath) and Moyhill (County Meath)
- Substation works at Woodland 400kV station

Initial submissions from EirGrid will comprise a statement relating to the project's strategic overview and technical need; alternative technologies; design, construction and siting of towers; landscape and cultural heritage; traffic; and electric and magnetic fields. In the course of examining options for this project, EirGrid has carried out extensive technical and environmental analysis and has reviewed best international practice and experience.

The development will:

- Encourage the growth of renewable energy in Ireland
- Ensure a reliable supply of high quality power
- Reduce the need for capital investment in power stations and other associated infrastructure
- Reinforce electricity supplies in the North East of the Republic of Ireland
- Enable the country meet its national obligations for the Single Electricity Market

Gate 3 Update

The Gate 3 Offer Programme aims to deliver firm connection offers and associated information to over 4100MW of additional wind generation and another 2000MW of mainly conventional generation. The project is on schedule and the roll out of connection offers commenced in December 2009 and will continue until June 2011.

Q1 2010 saw some significant milestones for the Gate 3 Offer Programme. On the 29th January, EirGrid published the final set of results for the ITC Program Firm Access Quantities 2010-2023. The ITC Program calculates the amount of additional power that the transmission system can accommodate on a firm basis and then allocates this firm capacity to Gate 3 applicants on an application date-order basis. EirGrid's 29th January publication detailed the scheduled Firm Access Quantities for each Gate 3 application for each year up to 2023. Work on constraint reports for Area K was completed by the TSO in March 2010 in accordance with the Gate 3 schedule and they are currently under review by the Commission. March also saw the issuing of connection offers for 120MW by EirGrid to ESB Networks for Area D (Clare region) on schedule. Offers to the generators in Area D were issued by ESB Networks slightly ahead of schedule on the 1st April 2010.

The Gate 3 Liaison Group meetings are on-going, taking place on a monthly basis. Thirteen of these meetings have now



taken place. The Gate 3 Liaison Group involving EirGrid, CER and ESB Networks, along with industry representatives, was established by CER at the start of the project to assist in communication among key stakeholders. The meetings have proved to be very effective with strong attendance and valuable input from key industry members. In the last quarter EirGrid has progressed or raised a range of issues through the Gate 3 Liaison Group which include important items for individual customers such as temporary connections, connection application fees, capacity relocations, constraints report publication, and deep reinforcement communications.

The TSO/DSO Sub-group Connection Method Meetings are now almost 100% complete with the last meeting scheduled for early June. These meetings are held with customers in advance of the offers being issued to inform customers of their connection method and give an estimate of associated costs. Feedback from the industry regarding these meetings has been very positive.

Key Gate 3 milestones for the up-coming months are the issuance of connection offers for 880MW for Area H2 (Wexford region) by the 29th of July and 650MW for Area H1 (South Midlands region) by 17th September 2010.

For further information about Gate 3, please go to the EirGrid website, www.eirgrid.com.

EirGrid publishes Transmission System Performance Report



EirGrid has published its Transmission System Performance Report with transmission system data and performance statistics for 2009. The report notes that the transmission system was operated at all times within acceptable international standards for safety, security and reliability of customer supplies. Total system production in 2009 was 26,752 GWh, down 5.35% on the previous year. Since 2008 there has been a dramatic

change in the economic climate and this has been reflected in a reduction in electricity demand. The Generation Adequacy Report 2010 – 2016 forecasts that demand will not return to 2008 levels until 2013.

The full report is available to view or download at www.eirgrid.com/aboutus/publications/.

East West Interconnector Update

The EirGrid East West Interconnector received a significant boost in March 2010 when it was confirmed that it will be supported by a €110 million grant from the European Commission, following a successful application by the Irish Government. The grant was confirmed by Günther Oettinger, the Commissioner responsible for Energy on the 4th of March.

This funding for the Interconnector is part of a suite of energy projects being targeted for investment by the European Commission as part of their €4 billion economic stimulus package “Investing today for tomorrow’s Europe”. The Interconnector project will help the development of the renewable energy industry of Ireland, facilitate competition and enhance security of the electricity.

Subsequent to successfully obtaining planning approval in Ireland and planning permission in Britain and other key consents, EirGrid instructed ABB to advance to the construction phase of the project.

The Interconnector has now entered its detailed engineering design, manufacturing and construction phase. This work will continue throughout 2010 and will cover all aspects of the technical design, including civil, mechanical and electrical components. The design work will be primarily undertaken by ABB in Ludvika Sweden.

Construction is already underway in Wales and trenching will commence in Ireland this summer. The installation of ducts will minimise the overall disruption associated with the Interconnector as the cables can be pulled through the ducts at a later stage. A full public information campaign will take place in advance of the works to keep people informed of any disruptions. Updates on the project progress can be found on www.eirgridprojects.com.



L-R: Dermot Byrne, Eirgrid Chief Executive and Eamon Ryan, T.D., Minister for Communications, Energy and Natural Resources.



The MV Elektron Vessel in Cork Harbour.

Cork Harbour

The installation of the cable under the seabed from Cuskinny Bay across the east channel of Cork harbour to the ESB site at Aghada took place in February 2010. This Aghada Raffeen circuit will be completed later this year and will ensure that high quality power is available for the Munster region. A cable laying vessel lowered the electricity cable to the seabed which was subsequently embedded using a water jetting remote operated vehicle.



Mr Michael Walsh, CEO of IWEA, speaking at the IWEA Conference

IWEA Conference attendees visit the National Control Centre (NCC)

The IWEA (Irish Wind Energy Association) Annual Conference took place on 25th and 26th March in the Four Season's Hotel, Dublin. The key themes highlighted were the importance of 'Collaboration', 'Consistency' and 'Co-operation' between agencies and stakeholders. The speakers on the main day included Stephen Wheeler, Chairman, IWEA; Martin Finucane, Department of Communications, Marine and Natural Resources; Michael Walsh, Chief Executive, IWEA; Dermot Byrne, Chief Executive, EirGrid; and others. The second day of

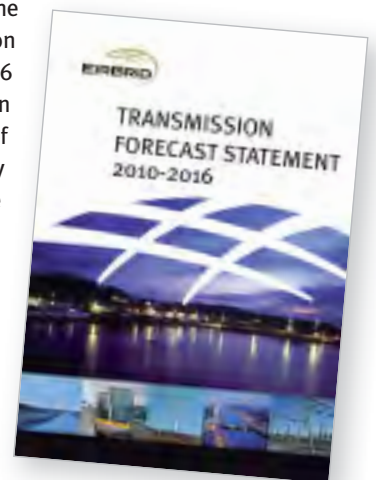
the conference included presentations from Katrina Polaski, SEAI; Tommy Cooke, Meitheal na Gaoithe; and a lively round table discussion facilitated by Noel Thompson, BBC; including Martin Finucane, DCENR; Tim Cowhig, IWEA; Shane Lynch, NIAUR; Fintan Slye, EirGrid; and Caitriona Diviney, IWEA.

During the main day of the conference, delegates were offered the opportunity to visit the National Control Centre (NCC) in EirGrid. The NCC is located in EirGrid's offices on Shelbourne Road, close to the conference venue. Highly trained grid engineers in the NCC are responsible for ensuring that generation matches demand requirements on the electricity system. Every minute of every day the NCC carries out the intricate task of matching electricity production to customer demand, which varies on a daily, weekly and seasonal basis. The NCC's objective is to operate the transmission system in the most economical manner, consistent with safety, security, continuity, quality and environmental standards.

Delegates visited the NCC and had a briefing provided by the Manager of Power System Operations, Michael Kelly and Dave Bell, Power System Operations, on the day to day running of the power system. 36 delegates visited the control centre including representatives from Endesa Ireland, Gaelectric, SSE Renewables, ABO Wind, Wind Farm Civils, Transmission Links Ireland, Gaeltec Utilities and Obelisk. Feedback on the tour was very positive, with one delegate stating that it was the highlight of the conference.

EirGrid publishes Transmission Forecast Statement 2010-2016

EirGrid is pleased to announce the publication of Transmission Forecast Statement 2010-2016 Version 2.0, prepared in accordance with the provisions of Section 38 of the Electricity Regulation Act, 1999. The Transmission Forecast Statement includes a comprehensive set of maps, diagrams and data describing the technical and topological characteristics of the existing high voltage power system. It also describes how Ireland's electricity infrastructure will be developed over the seven year period covered by the statement.



The document contains information that will assist developers considering connections to the grid and will enable users to undertake their own power flow analyses, if desired.



The Transmission Forecast Statement highlights opportunities for the connection of demand at 29 points on the grid. The locations were selected to closely match the needs of our customers. The information regarding opportunity at the point closest to a demand site being considered by a developer provides an indication of the capability of the grid to facilitate the proposed connection. EirGrid advises developers to approach EirGrid directly to discuss their requirements as early as possible in the development cycle.

The document presents the opportunities for generator connections identified through the Gate 3 process and outlines the generation opportunities arising from EirGrid's grid development strategy, GRID25.

Sustainable Energy Authority of Ireland unveils ambitious 5 year strategic plan



The Sustainable Energy Authority of Ireland (SEAI) has published a five-year strategic plan with a mission of transforming Ireland into a society based on sustainable energy structures, technologies and practices, and a vision of making Ireland a recognised global leader in sustainable energy. It says sustainable energy practices are already delivering significant savings to the Irish economy, with lowered business costs and household energy bills resulting from efficiency measures, and

reduced fossil fuel imports from our increased use of renewable energy. SEAI considers that over the course of the five-year strategy, new savings worth €6 billion will be generated supporting 5,000 - 10,000 jobs every year.

EU Commission Benchmark Report identifies correct implementation of EU energy law and infrastructure investment as top priorities

The 2009 Benchmarking Report reveals that the correct transposition of the European electricity and gas legislation

in all Member States is still not complete. The Third Internal Energy Market Package was adopted in 2009. According to the EU Commission the challenge the EU faces is to accelerate investments in energy infrastructure to enhance cross border trade, access to diversified sources of energy and in particular from renewable sources.

The report also highlights the impact of the financial and economic crisis on the internal energy market. Reduced economic activity resulted in a significant fall in the consumption of gas and electricity. This lower consumption has had an important impact on the international oil prices which in turn influence gas and electricity prices. However, the fall witnessed in oil prices on the international market has not been entirely reflected in end user gas and electricity prices. The Report also indicates that there are still high levels of concentration on the retail and wholesale market.

The financial and economic crisis also created new opportunities for competition, since more gas is available at lower prices. The work of national regulatory authorities tends to shift the focus towards the consumer, including the roll-out of smart meters as the key to smart grids in the internal energy market. This is a welcome trend for the deployment of active participation by customers in the internal energy market and increased energy efficiency and large-scale integration of renewables, as well as additional energy services, increased market transparency and easier supplier switching. Additionally, cooperation between European power exchanges, as well as the ongoing trend of increasing trade, is a promising sign of functioning markets.

RECENT AND UPCOMING EVENTS

- Green Economy Expo 2010, Dublin, 21/22 May
- The Inaugural National Emergency Management Summit, Croke Park, Dublin, 25 May
- The IET Smart Grid 2010 Conference, London, 25 May
- Enabling Offshore Wind Supply Chain Summit 2010, London, 25 May
- Energy Ireland 2010, Dublin, 2/3 June
- EURELECTRIC Annual Convention & Conference 2010, Dublin, 14 June

Ancillary Services Harmonisation

Harmonised Ancillary Services arrangements went live on the 1st February 2010. The new arrangements established common commercial all-island arrangements for Ancillary Service and Other System Charges. The Ancillary Services Harmonisation project, in addition to achieving harmonisation, set a foundation for the future development of Ancillary Services and the further incentivisation of optimum generator performance on a consistent all-island basis.

The initial work commenced in 2006 as part of the design considerations for SEM. Within the last two years a joint EirGrid/SONI project team was established to drive the project to its successful conclusion and to manage the complex regulatory, legal, contractual, IS and stakeholder challenges that arose. The arrangements have now gone live and the first statements and invoices have been issued to generators.

A number of payments and charges are managed outside the Single Electricity Market by the Transmission System Operators, EirGrid and SONI. These include Ancillary Services and Other System Charges. Ancillary Services are services necessary for the secure operation and restoration of the electricity system. Other System Charges, which is a new term under the harmonised arrangements, are intended to incentivise optimum performance of generators to ensure efficient use of the power system. Other System Charges include the familiar Trip charges and Short Notice Declaration charge and introduce the new Generator Performance Incentive charges which have been derived from the Northern Ireland System Support Services arrangements. On the 1st February 2010, harmonised all island arrangements were brought into operation for both Ancillary Services and Other System Charges.

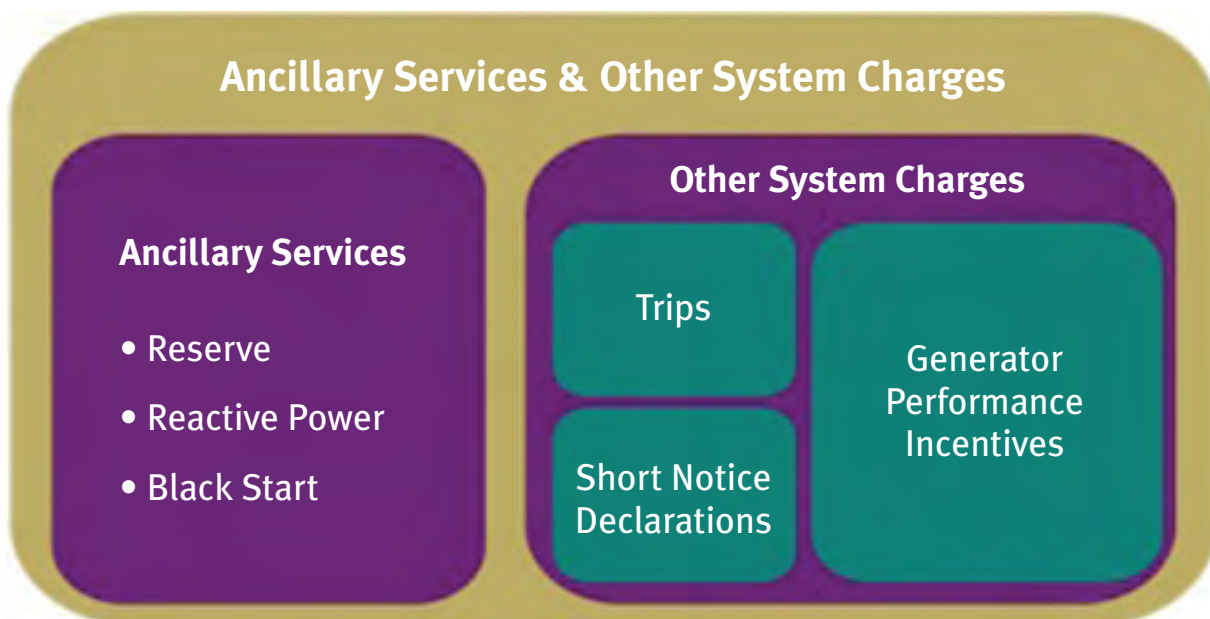
Ancillary Services & Other System Charges

ANCILLARY SERVICES

The harmonised Ancillary Services arrangements encompass the three services of Reserve, Reactive Power and Black Start. The Reserve service provides MW capacity in short timescales following a rapid reduction in frequency to restore the frequency to secure levels. The Reactive Power service provides voltage support to enable the secure operation of the transmission system. The Black Start service is central to the restoration of the power system following extensive loss of supply. The Ancillary Services contractual arrangements are covered under a regulatory approved harmonised all island Ancillary Services agreement. The Transmission Use of System charges fund the Ancillary Services payments. Any Ancillary Services charges which arise are used to offset this TUoS funding requirement. The payment and charge rates are set out annually in the Ancillary Services Statement of Payments and Charges. The payments and charges are settled and billed on a monthly basis by each TSO separate to Other System Charges.

OTHER SYSTEM CHARGES

The harmonised Other System Charges arrangements encompass the three charges of Trips, Short Notice





Declarations and Generator Performance Incentives. The Trip charge seeks to minimise the number of trips and, when a trip is unavoidable, to incentivise the generator unit to trip slowly. The SND charge seeks to incentivise generator units to avoid changing their MW availability declarations at short notice, or at least, to provide the maximum possible notice. The GPI charges seek to incentivise Grid Code compliance along with desirable behaviours such as timely generator synchronisation. Other System Charges arrangements are set out in the TSOs' Other System Charges Methodology Statement. Other System Charges are levied on generators through the Transmission Use of System agreement. The annual receipts from Other System Charges are used to reduce the funding requirements from customers. The charge rates are set out annually in the TUoS Statement of Charges. The charges are settled and billed on a monthly basis by each TSO separate to Ancillary Services.

The harmonisation project took four years to complete with the majority of the effort coming in the latter two years. The project involved four phases of consultation which considered the vision, the principles, the design and the implementation respectively. During the process the Regulatory Authorities and the TSO hosted three workshops and briefing sessions to generate industry debate as the harmonised arrangements were developed. The formal consultation processes also provided a healthy level of submission from industry participants. The implementation phase of the project was the intense phase of the project involving the first harmonised annual rates setting process; major changes to existing TSOs' and participants' billing systems; and legal changes including licence charges, agreement changes and Grid Code changes. In order to allow adequate time for all involved to smoothly effect the transition to the new arrangements, the implementation phase of the project was briefly postponed which enhanced the quality of the implementation.

The key success of the project is that it has established a foundation for the future development of Ancillary Services and the further incentivisation of optimum generator performance on a consistent all-island basis. By incentivising optimum generator performance through a combination of both payments and charges, the power system can operate at its most efficient. This will also enable efficient development as the power system evolves. The TSOs are actively increasing the generator performance monitoring of which both Ancillary Services and Other System Charges form a part. Under Other System Charges, the Generator Performance Incentives in particular are providing many benefits even at the early stage of their all island introduction. The benefits, which can be attributed to the introduction of GPIs and complimentary work, include:

1. Increased focus on Grid Code requirements.
2. Enhanced transparent knowledge of the capability of the power system through the increased number of derogation requests.

3. Improved generation capabilities which have been proven through testing.
4. Improved generation performance and flexibility leading to more efficient operation of the power system.

The harmonisation project is now complete and the harmonised arrangements are in the operational stage. The second annual rates setting consultation is being drafted in order to have approved rates for the start of the next tariff year, 1st October 2010. This rates setting consultation will also consider enhancements to the harmonised arrangement based on the industry participants' views and the first three months experience of operation of the harmonised arrangements. The medium term future developments in this area are also being considered following harmonisation. It is expected that these developments will be more significant and will consider both the facilitation of renewables and the interaction with SEM. The harmonisation of the Ancillary Service and Other System Charges arrangements represents another major milestone in meeting the objectives of the SEM.

SONI and EirGrid publish revised Charging Statements

As part of the all island harmonisation of Ancillary Services and Other System Charges, the Ancillary Services statements of payments and charges and the statements of charges applicable for use of the transmission system were amended. The new rates were effective from 1st February 2010. The Other System Charges are payable by generators which are party to a Transmission Use of System Agreement (TUOSA).

The Other System Charges contain the following:

- **Trips** - Trip charges are designed to incentivise generators to minimise the number of trippings and, during a trip event, to reduce the rate of MW loss and thus reduce the impact on the system.
- **Short Notice Declarations (SNDs)** - SNDs relate to unscheduled decrease in MW availability of generators. The charges are intended to incentivise early notification of changes to availability to enhance system security and reduce operating costs.
- **Generator Performance Incentives (GPIs)** – GPIs are intended to incentivise compliance with the performance standards required by the Grid Codes to ensure the system is operated in an efficient and economic manner.

Report on Future Low-Carbon Generation Options – the All-Island Market

A report from energy consultants Pöyry, was commissioned by EirGrid on low carbon generation options for the all-island power market in 2035 and beyond. The report describes the various power generation technology options that are likely to be available to help deliver sustainable power in the future.

The technology options looked at in the report by Pöyry included:

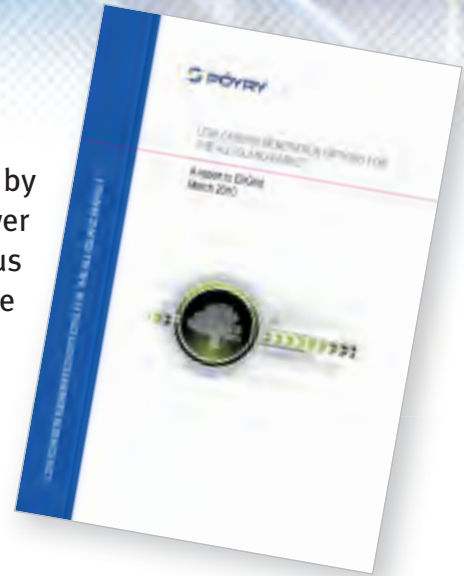
- High levels of renewable energy (beyond the current 40% target)
- Further interconnection with the British and France electricity markets
- Coal fired generation with carbon capture and storage
- The continued use of gas for generation
- Nuclear energy
- Energy storage

The report describes the characteristics of these potential technologies and compares and contrasts them under costs, emissions and contribution to fuel security in various portfolio combinations. Substantial emissions reductions of up to five times lower than today’s levels are possible across all the portfolios studied.

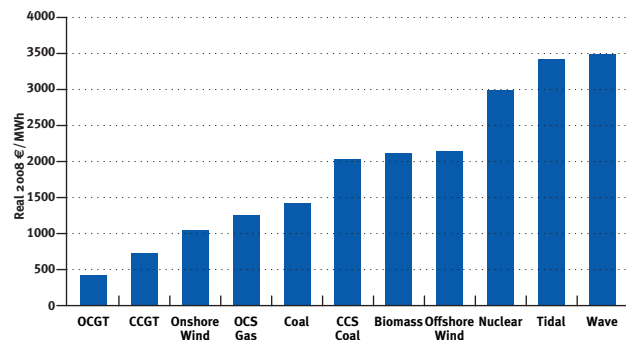
EirGrid will continue to build on our work to date of operating and planning a secure and economic transmission system with emphasis on integrating renewables and exploring the potential to increase our interconnection with neighbouring electricity markets. In tandem with this, we will continue to develop the electricity transmission infrastructure to ensure security of supply, maximise the island’s renewables potential and to place the island in a position to deliver on generation portfolio developments.

EirGrid Chief Executive Dermot Byrne said: “It is not about picking winners at this stage. Instead it is our aim that the report will contribute to an informed debate on the future generation portfolio on the island of Ireland. EirGrid wants to provide information that will lead to sustainable energy solutions and to effective energy policy. These choices should be the right ones for Ireland and not necessarily follow the approaches of elsewhere. The policy choices we make now and in the near future will play a major part in determining energy prices and competitiveness on the island of Ireland for the next generation.”

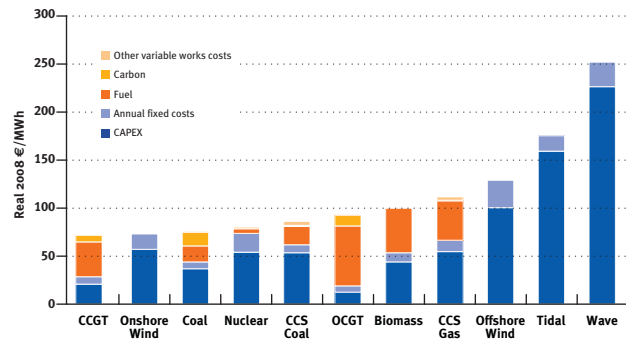
The report entitled “Low carbon generation options for the All-Island market” is available to view at www.eirgrid.com/aboutus/publications.



Capital costs by generation type



Lifetime generation costs by technology (€/MWh)





January

Transmission System Operation

- EirGrid
 - publishes Wind Farm Connections Report
 - publishes Statement of Charges and Payments for Ancillary Services Providers 2010 from 1st January to 31st January 2010
 - publishes Demand Side Management Online User Guide
- SONI
 - publishes revised Transmission Statement of Charges from 1st February 2010

Market Operation

- SEMO
 - proposes establishment of SEM Design Service

Regulation

- CER
 - Decision Paper on Harmonised All-Island Ancillary Services Rates and Other System Charges is published
 - consults on Code of Practice Supplier Handbook Proposed Guidelines
 - issues Decision on Losses Policy for Generators

February

Transmission System Operation

- EirGrid
 - publishes Statement of Charges applicable from 1st February 2010 to 30th September 2010
 - issues Ancillary Services Agreement

Regulation

- CER
 - issues Information Paper on Fuel Mix and CO₂ Emission Factors Disclosure 2008

SEAI

- Sustainable Energy Ireland
 - commences Wave Energy Monitoring

March

Transmission System Operation

- EirGrid
 - publishes Pöyry report on Low Carbon Generation Options for the All-island Market
 - publishes Transmission Forecast Statement 2010-2016

Regulation

- CER
 - consults on charter for connection of renewable generators to the electricity network
 - issues draft Decision on the ESB PES's Revenue Regulation Framework
 - provides East West Interconnector Project (EWIC) Status Report
- SEM
 - SEM Committee publishes Decision Paper on SEM Regional Integration
 - SEM Strategy Information Paper is published

SEAI

- Sustainable Energy Ireland
 - launches Strategic Plan 2010-2015

Other

- EU confirms €110 million grant towards cost of Ireland Wales Interconnector



INTERNATIONAL ENERGY CALENDAR

January

Canada

- AESO files application for transmission infrastructure development in Yellowhead area

China

- China passes new legislative amendment requiring grid operators to buy all electricity produced by renewable energy sources
- State Grid Corporation of China (SGCC) plans to pilot smart-grid operations in western China

Europe

- EU Commission
 - decides to extend €565 million as grants from €4 billion European Energy Programme for Recovery fund to nine offshore wind projects
- Others
 - UK, Germany, France, the Netherlands, Sweden, Denmark, Belgium, Ireland and Luxembourg issue a political declaration to cooperate on transmission for offshore wind projects
 - EIB extends €300 million loan for UK-Netherlands transmission interconnection
 - Statnett and Energinet, TSOs of Norway and Denmark, announce plans to construct a new 400MW transmission interconnection (Skagerrak 4) for 2014

Italy

- Enel postpones Endesa transmission grid sale

UK

- Ofgem selects six bidders for the auction of transmission lines to connect nine offshore wind farms to the grid.
- Department of Energy and Climate Change (DECC) has announced that the country will shift to a smart energy system
- Ofgem extends transmission price control to 2013

US

- FERC issues final rule on mandatory reliability standards
- Electric Reliability Council of Texas (ERCOT) reviews \$8.2 billion of new transmission projects over next five years
- Colorado's Renewable Energy Development Infrastructure (REDI) report says renewable energy development limited by lack of transmission infrastructure
- New Mexico's Renewable Energy Transmission Authority (RETA) says inadequate transmission infrastructure is hindering New Mexico's renewable energy growth
- Midwest ISO releases Phase-I of the Regional Generation Outlet Study (RGOS) concluding that an extra high voltage (EHV) solution is necessary to address renewable energy

February

China

- State Grid Corporation of China (SGCC) unveils some of the standards for smart grid

Europe

- EU Commission
 - adopts biomass sustainability report

- publishes new organisation chart of the Directorate-General for Energy
- Others
 - Svenska Kraftnät drops out of Kriegers Flak transmission project, leaving Energinet.dk and 50Hertz involved

Germany

- E.ON estimates that German power companies will have to invest about €20 billion by 2020 to develop smart power grids

Japan

- Japanese government, in association with over 20 Japanese companies, has decided to work toward establishing global standards for smart-grid systems within three years

South Korea

- South Korean government has finalised its plan for establishing a nationwide smart grid by 2030

Spain

- Spanish TSO, REE, announces investment plans of €800 million for 2010

UK

- Ofgem announces final proposals to distribute £319 million among the TSOs for projects to connect renewable generation sources to the national grid

US

- Eastern Wind Integration and Transmission Study (EWITS), examining scenarios for a 20-30% wind target by 2024, is published
- FERC to revise transmission tariffs for integration of renewable resources
- National Institute of Standards and Technology (NIST) of the US Commerce Department has presented the 'NIST Framework and Roadmap for Smart Grid Interoperability Standards
- NYISO submits grid operator coordination plan to FERC

March

Australia

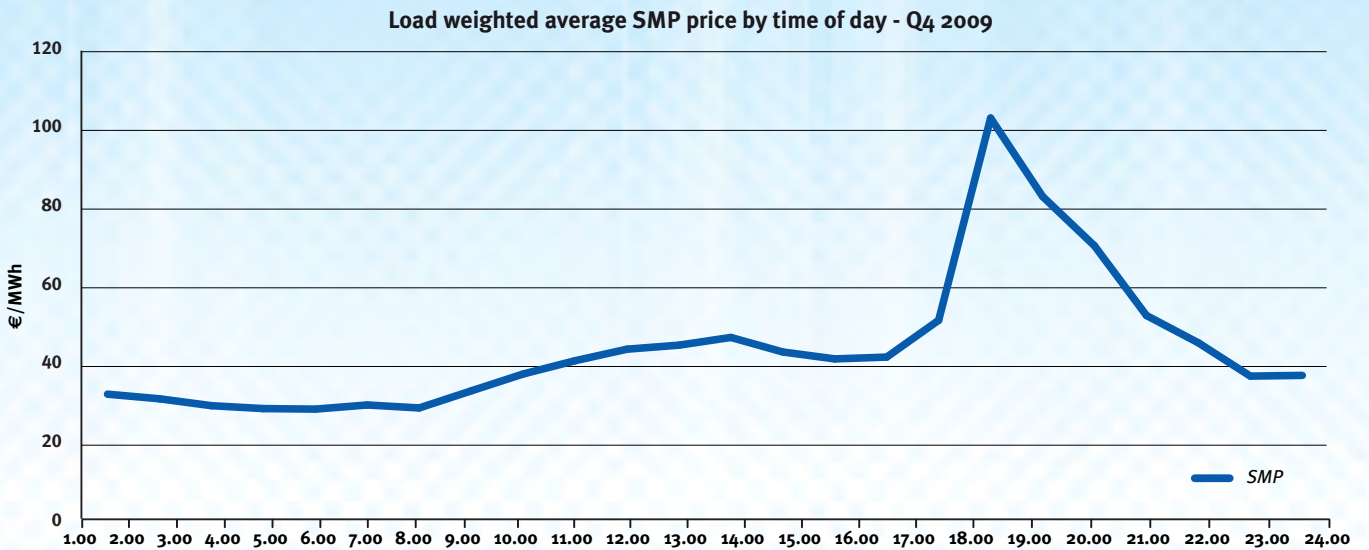
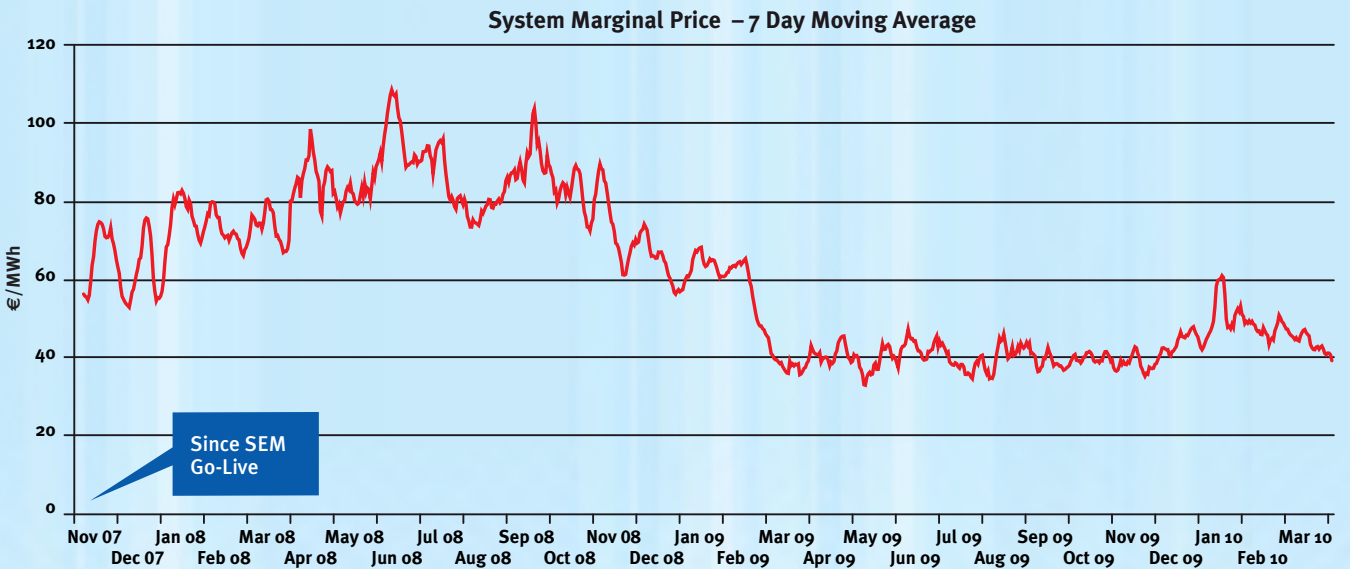
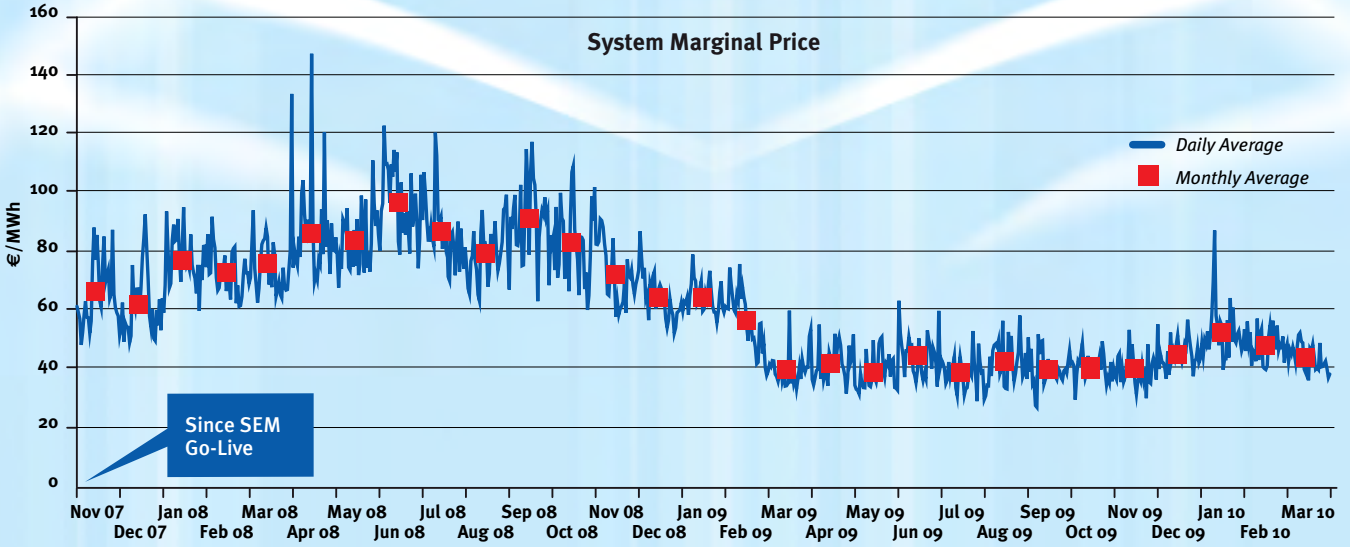
- Government accepts bids for \$86.4 million pilot project to test a smart-grid system over the next three years in Australia

China

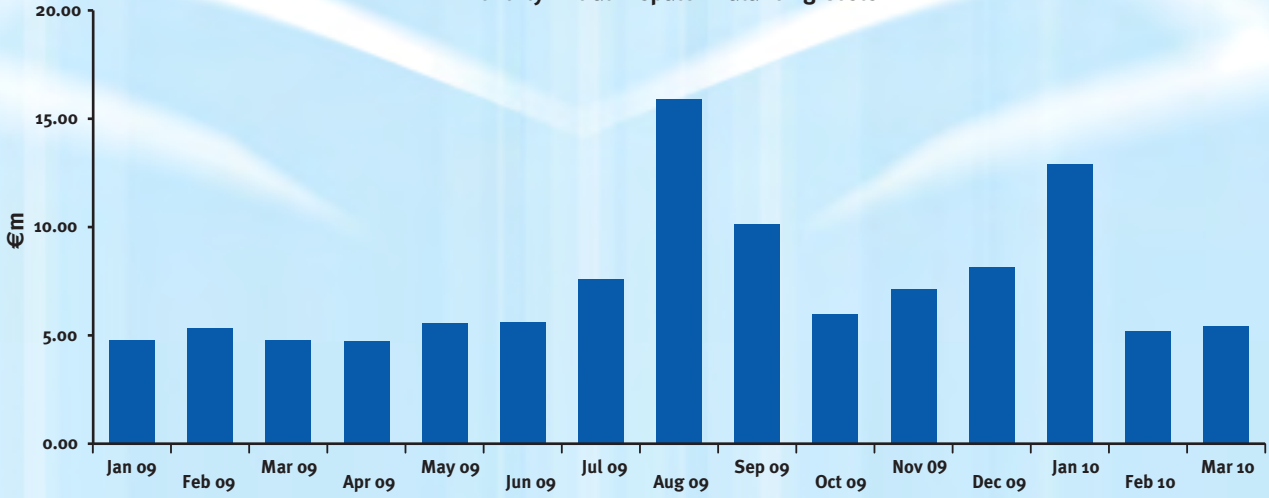
- Chinese government announce \$7.3 billion stimulus package for a smart grid in 2010
- State Grid of China signs agreement with Vestas on wind transmission

Europe

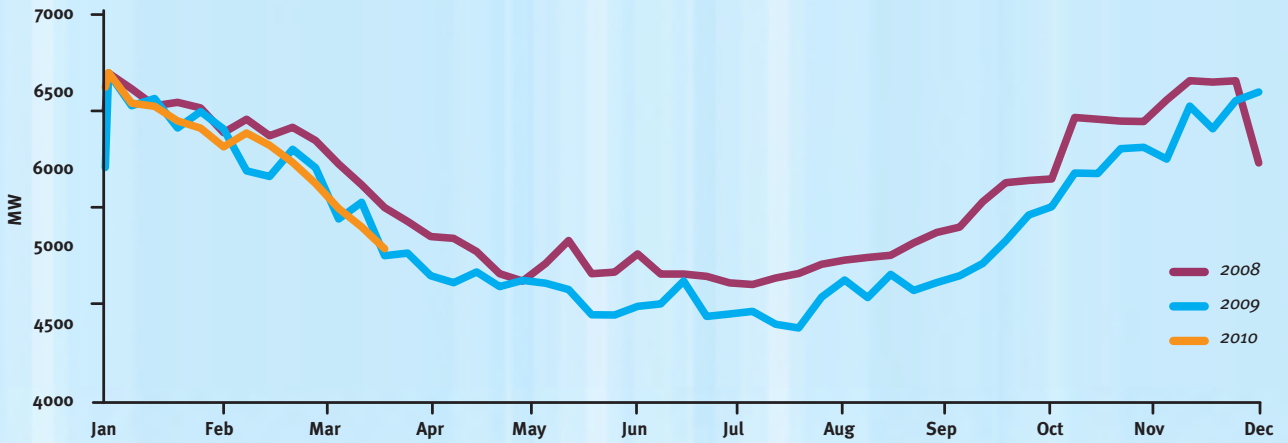
- EU Commission
 - issues 2009 benchmark report on progress in creating the internal gas and electricity market
 - publishes TEN-E financed projects 1995-2009
 - grants €2.3 billion to 31 gas and 12 electricity projects
 - decides on 2010 work programme for grants and contracts in the fields of energy and transport
- ENTSO-E
 - starts public consultation on its pilot Ten-Year Network Development Plan
- Others
 - Estonia to sign agreement with Finland for second 650MW undersea cable called Estlink 2
 - Italy and Montenegro agree €720 million, 300km undersea cable connecting Pescara in Italy with Bar in Montenegro



Monthly Initial Dispatch Balancing Costs



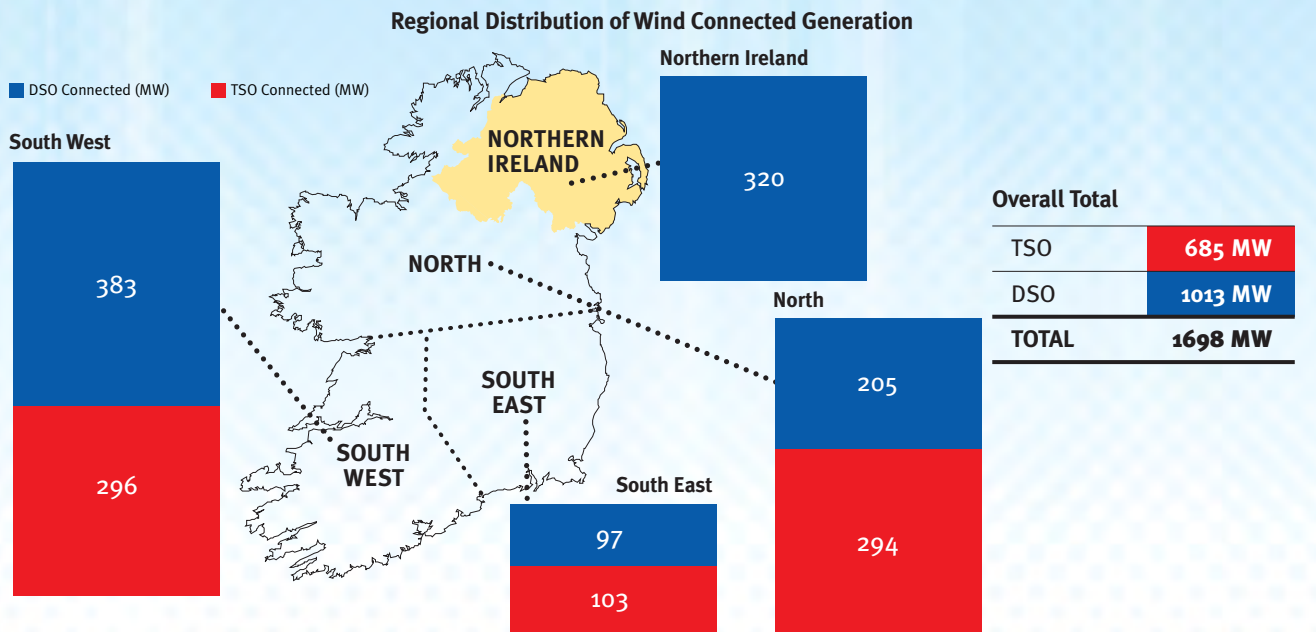
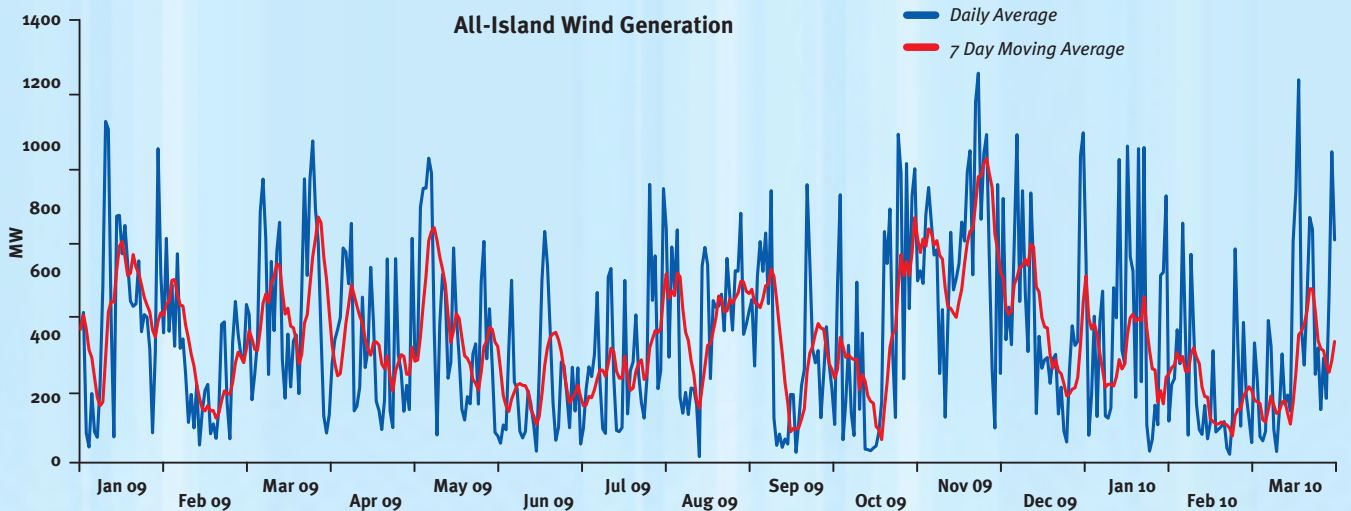
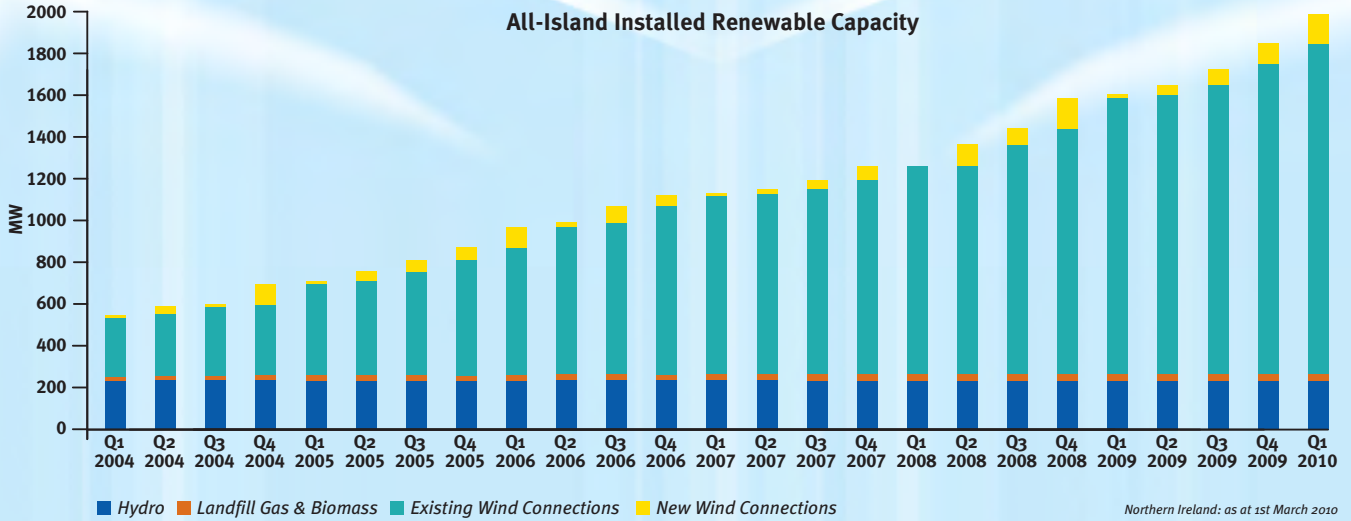
All-Island Weekly Demand Peaks



All-Island Generation: System Availability




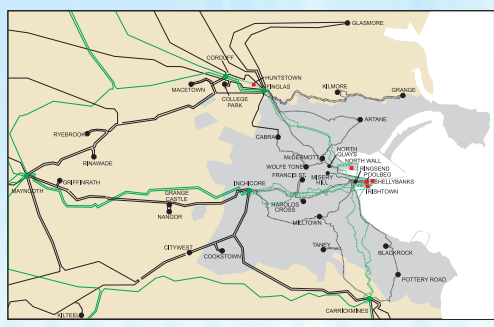
Renewables



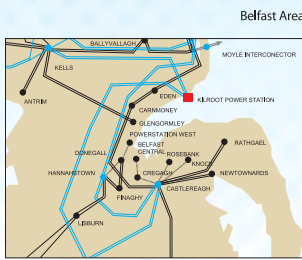


Transmission System
400 kV, 275 kV, 220 kV and 110 kV

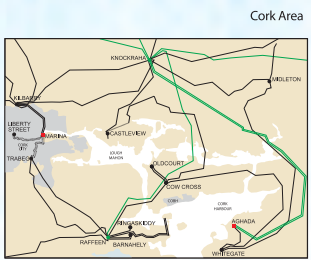
- 400 kV Lines
- 275 kV Lines
- 220 kV Lines
- 110 kV Lines
- - - 220 kV Cables
- - - 110 kV Cables
- 400 kV Stations
- 275 kV Stations
- 220 kV Stations
- 110 kV Stations
-  Phase Shifting Transformer
- Transmission Connected Generation**
- Hydro Generation
- Thermal Generation
- ▼ Pumped Storage Generation
- Wind



Dublin Area



Belfast Area



Cork Area

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While every effort has been made in the compilation of this quarterly review to ensure that the information contained herein is correct we cannot accept responsibility or liability whatsoever for any damage howsoever caused by reliance on the information presented here.

*SONI is the licensed system operator for the Northern Ireland Transmission System.