



EirGrid Group **Customer Conference 2012**

25th October 2012

Delivering the Power System of tomorrow



All-Island Power System Review

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Grid Operations Real Time

25th October 2012



Presentation Structure

- Looking back at last year:
 - With figures
 - Feedback - progress with last years challenges & on the issues arising from the load shedding incident
- Looking forward to year ahead & new operational challenges

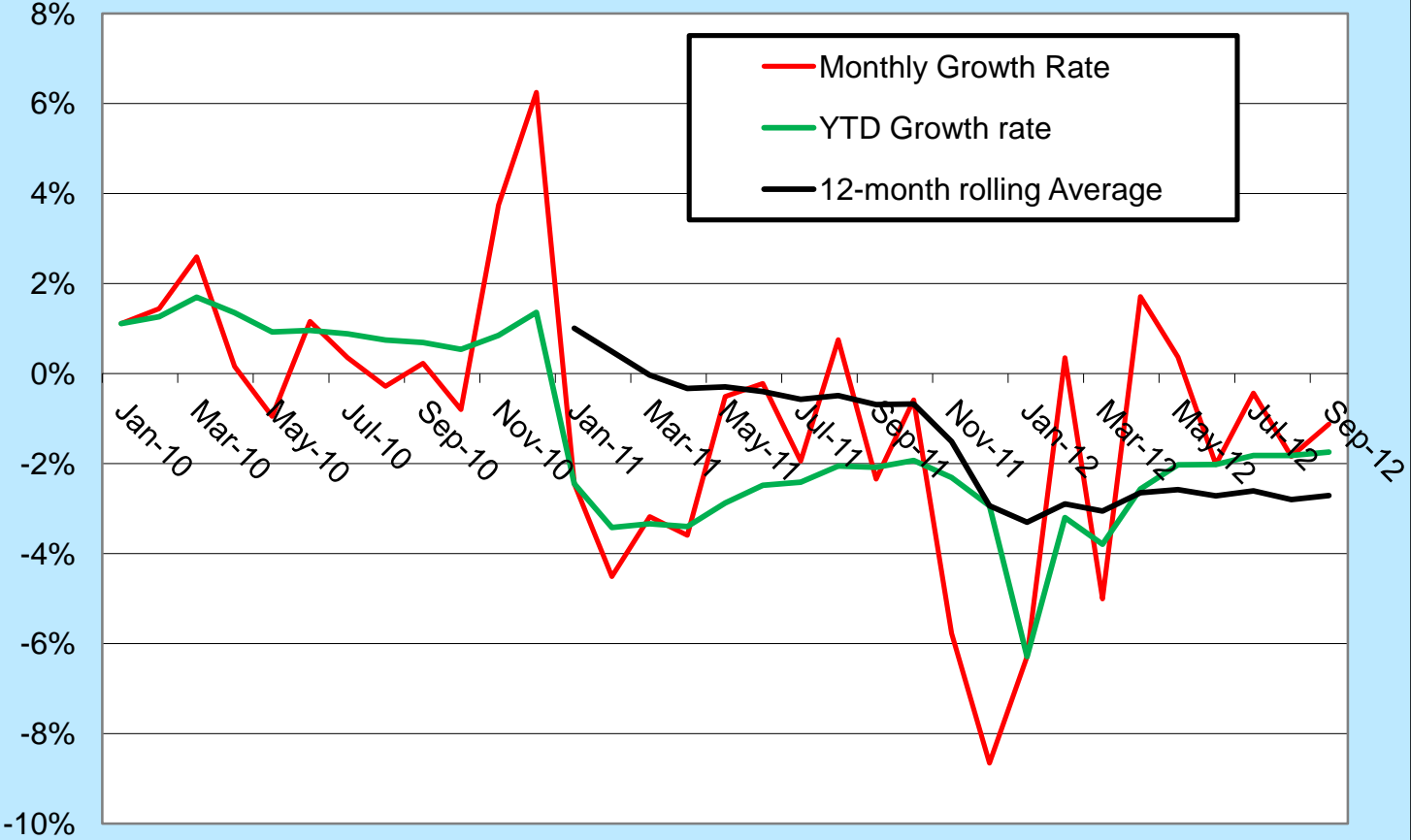
Looking Back With figures



All-Island Data 2011/12

INSTALLED CAPACITY (inc wind & Interconnection)	12060MW (up by 273MW)
PEAK DEMAND	6420MW (17:30 13/12/11) (down by 425MW)
MINIMUM DEMAND	2173MW (05:45 29/07/12) (down by 42MW)
DEMAND SUPPLIED YTD	25459GWhrs
GROWTH RATE	-2.64% (down by 2.14)

All Island Energy Growth Rates (%)



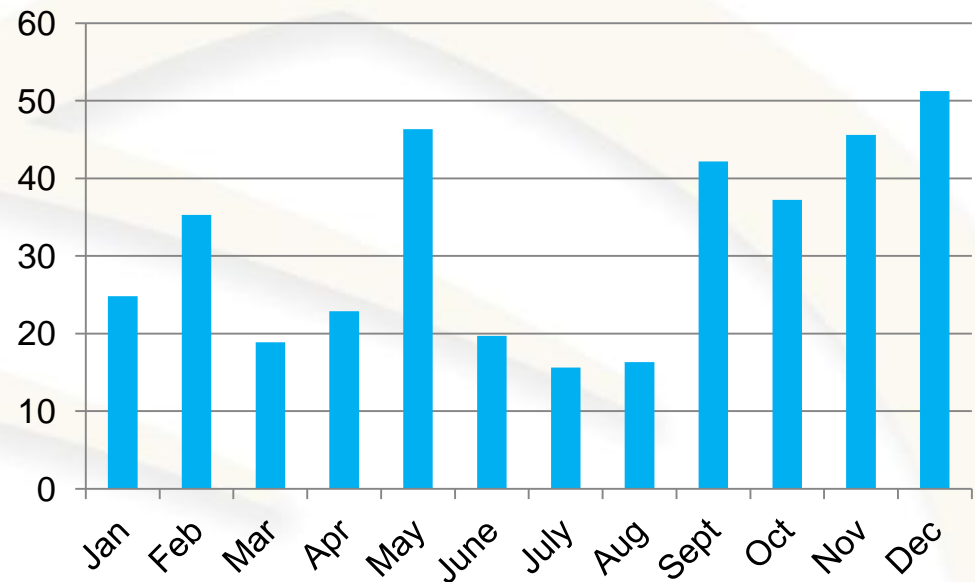
All-Island Wind Data 2011/12

INSTALLED CAPACITY	2088MW
CAPACITY ADDED YTD	155MW
CAPACITY FACTOR YTD	27.59% (up 2.89)
ENERGY REDUCTION YTD	2.37% (up 0.57)
CONTRIBUTION @ MIN LOAD	270MW (29/07/12 @ 05:45)
CONTRIBUTION @ PEAK LOAD	1738MW (13/12/11 @ 17:30) Cap Fact 73.6%

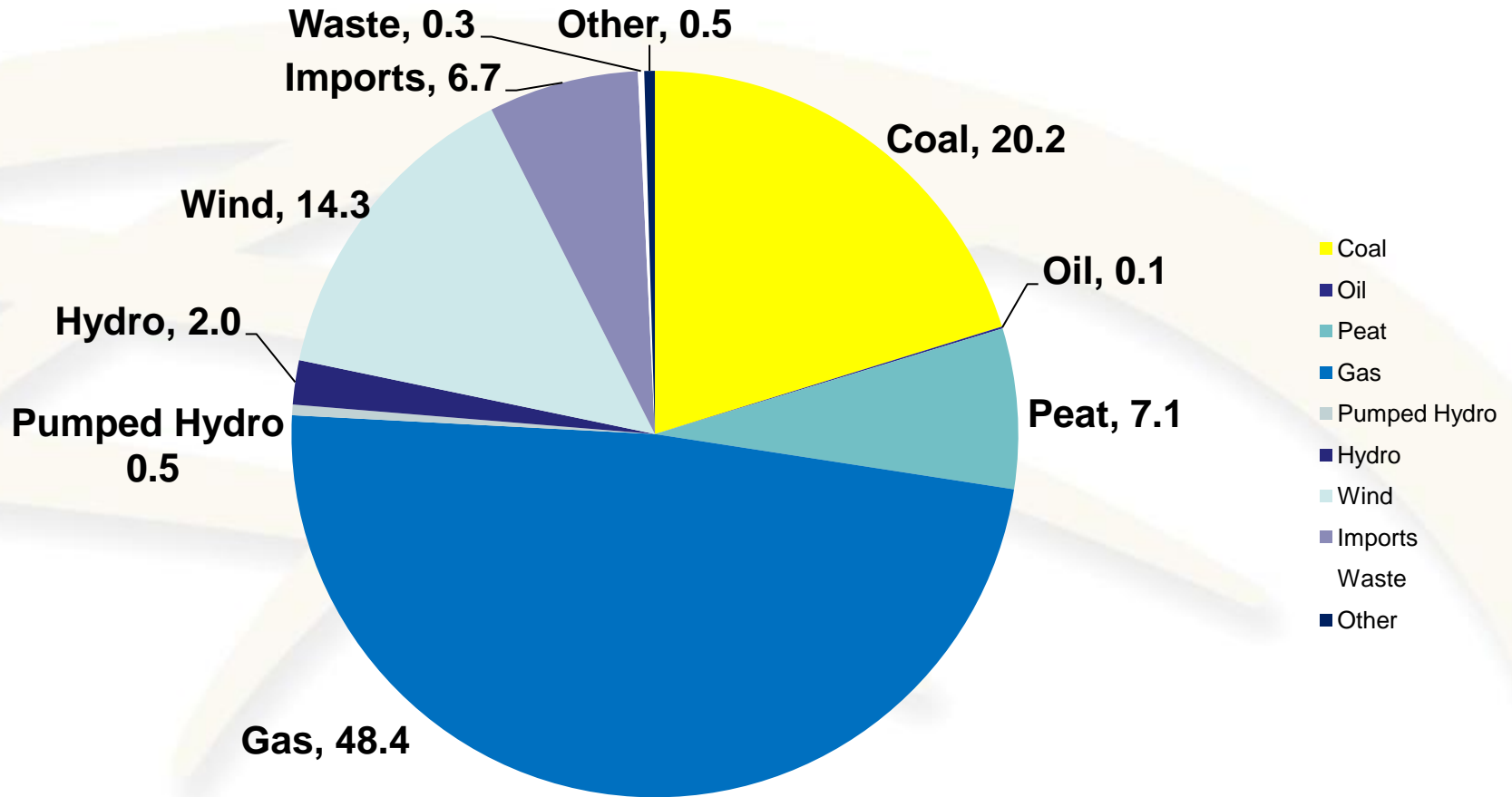
More Wind Stats for 2011

- Capacity Factor 2011: 31%
- All-Island Wind Generation record of 1838 MW on November 30th 2011
- On November 26th wind accounted for 38.8% of demand with a Cap Fact of 79.7%
- Maximum recorded SNSP: 50%
- 103 Days in 2011 where wind exceeded 40% of demand

2011 Monthly Wind Capacity Factors



All-Island Fuel Mix 2012 YTD



Looking Back at Last Year's Challenges



1. Intraday gate introduces more uncertainty with process & staffing changes required in control room

- The Balancing Services role was introduced into the control room to help deal with intraday – this is the first All Island role i.e. it is carried out in either control room for the island
- Intraday trading went live in the control room on the 19th July without any major problems
- With this new role the control room have been able to provide a better service in producing the main Day Ahead Schedule taking into account that there is a much shortened lead time caused by the extra Day Ahead market run

2. EWIC –changes required to permit operation from control room, this will add more non synchronous & in effect more priority dispatch to the system

- All the required changes to permit operation of EWIC from the NCC were completed & tested by end of September
- Successful high and low frequency testing was carried out using EWIC on numerous occasions – this forced the system frequency to operate in previously uncharted territory
- As stated earlier there are telephone interference issues deferring go live & these are being addressed with the main contractor – meanwhile the control room staff are raring to go.

3. Scheduling and Dispatch – increasing i/c and priority dispatch plant along with implementation of priority dispatch principles and tie-breaking

- Priority dispatch principles have been established and agreed with the RAs – tie breaking still to be decided upon however EirGrid had carried out designs to implement the initial decision
- The control rooms now try to trade priority dispatch plant with NGC rather than constrain
- From 25 May trading should have taken place on 56 occasions but trades were only entered into on 12 occasions.
- Of the other 44 NGC had high –ve pricing on 37 occasions and refused 7 requests

Load Shedding Issues from Last Year

- Low Frequency Load Shedding – 5 Sept 2011 this did not operate as planned leading to an inequitable distribution of load shedding between I:NI with a delayed return to normal operation
- With hard work and the assistance of ESB a similar incident this year (20 August) resulted in a normal distribution of load shedding I:NI with the majority of customers restored within 9 minutes

Looking Forward....



Winter Outlook

- Moyle has had one pole forced out of service again & it is not expected to be back in service unless it can be fixed under warranty
- Turlough Hill is now fully returned to service
- EWIC go live is temporarily deferred until the issue with the telephone interference is addressed
- There are not expected to be any capacity issues over the winter period regardless of the position of Moyle or EWIC

Main Challenges Year Ahead.....

- Increase trading by use of Power Exchanges in GB:
 - This will permit trading with suppliers and bypass NGC issues
 - This is not a panacea but will provide another tool until Ireland can utilise more wind and/or export more via the market
- Further harmonisation of system operation:
 - Provision of a new EMS which will permit all island operations
 - All island ops will permit better utilisation of control room staff
- Europe driving legislation changes:
 - Work is ongoing at the moment on new Network Codes and EirGrid are involved with shaping/drafting of these codes
 - The RFG code associated with System Development is first to go through Commitology 2013

