All Island Power System Review

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EirGrid Group Customer Conference

20th October 2011

SONI System Operator for Northern Ireland

semo Single Electricity Market Operator

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Presentation Structure

- Looking back at last year
- A day in the life……
  - 5 September 2011
- Looking forward to year ahead & new operational challenges

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Looking Back

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All island data 10/11

INSTALLED CAPACITY (inc wind)	11787 MW
PEAK DEMAND	6845MW (18:00 21/12/10)
MINIMUM DEMAND	2215MW (05:45 10/07/11)
DEMAND SUPPLIED YTD	23186 GWhrs
GROWTH RATE	-0.5%

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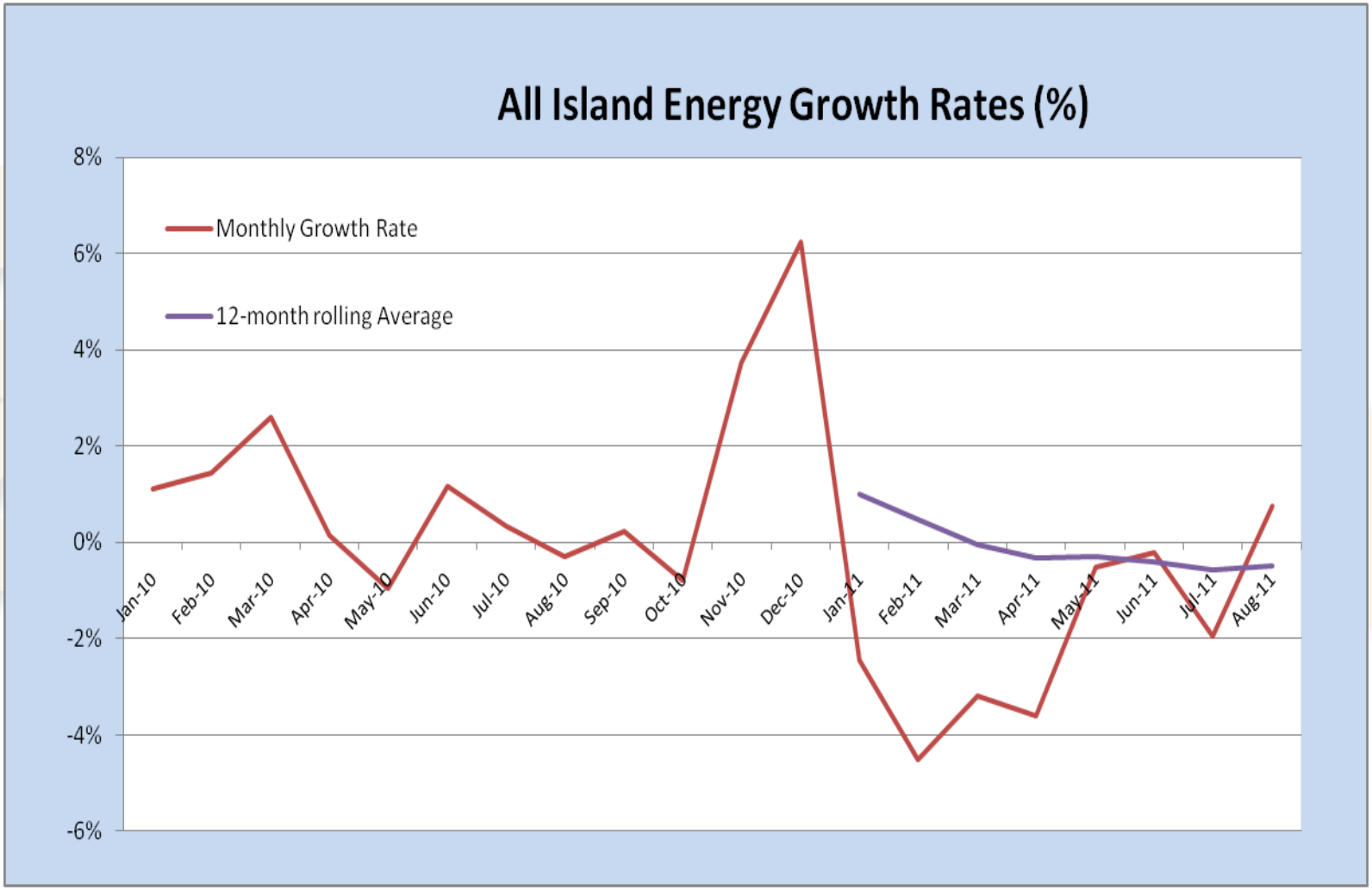

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All island wind data 10/11

INSTALLED CAPACITY	1933MW
CAPACITY ADDED YTD	224MW
CONTRIBUTION @ PEAK LOAD	169MW
CONTRIBUTION @ MIN LOAD	69MW
CAPACITY FACTOR YTD	24.7%
ENERGY REDUCTION YTD	1.8%

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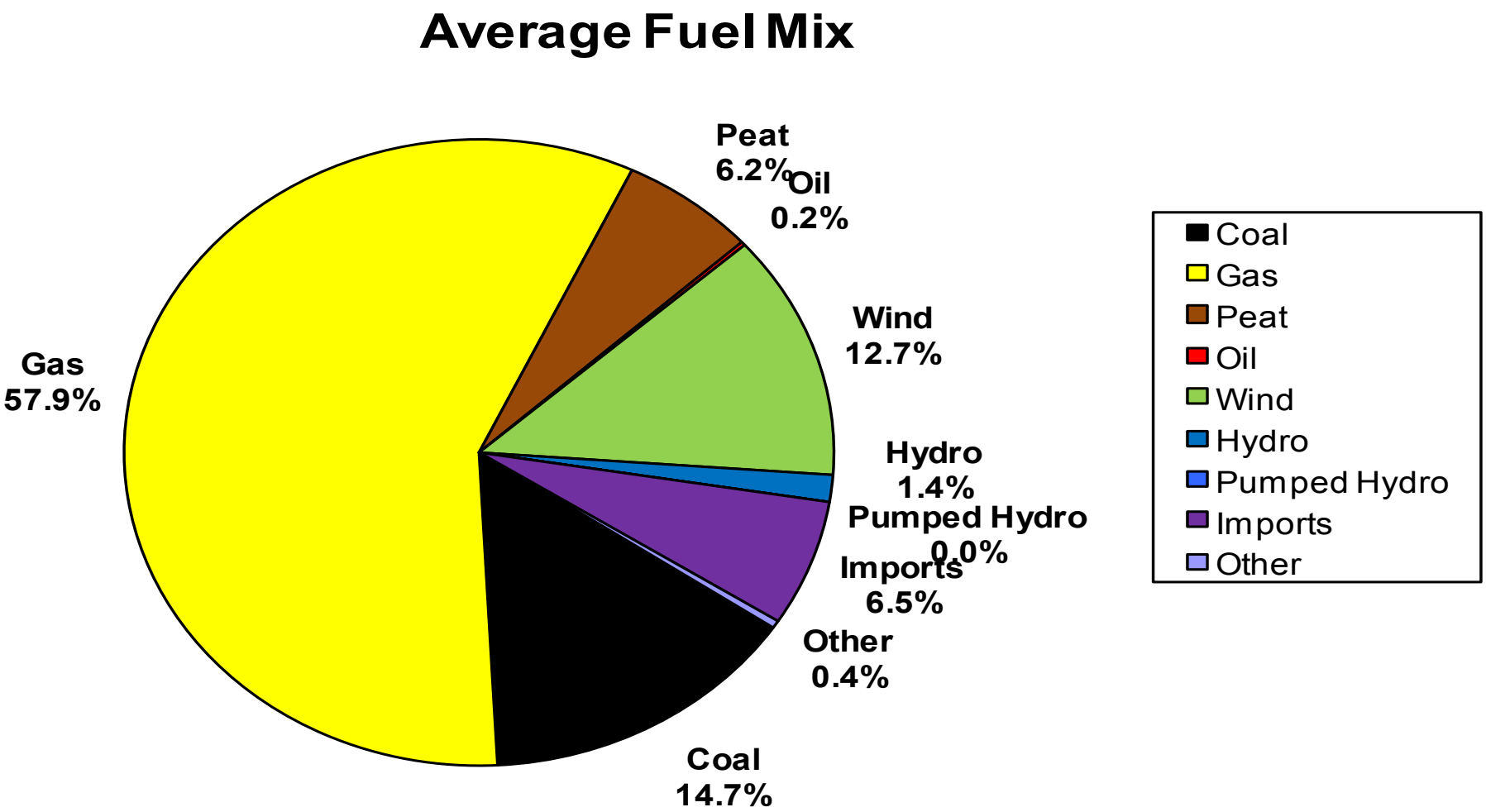
All Island Fuel Mix YTD



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Monday 5 Sept 2011

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Monday 5 September 2011

- The SO secures the system by providing reserve cover for a G-1 event
- This incident was a G-3 event with a total loss of approximately 520MWs
- These trips led to all island load shedding with 129MW loss of retail load effecting just over 110,000 customers

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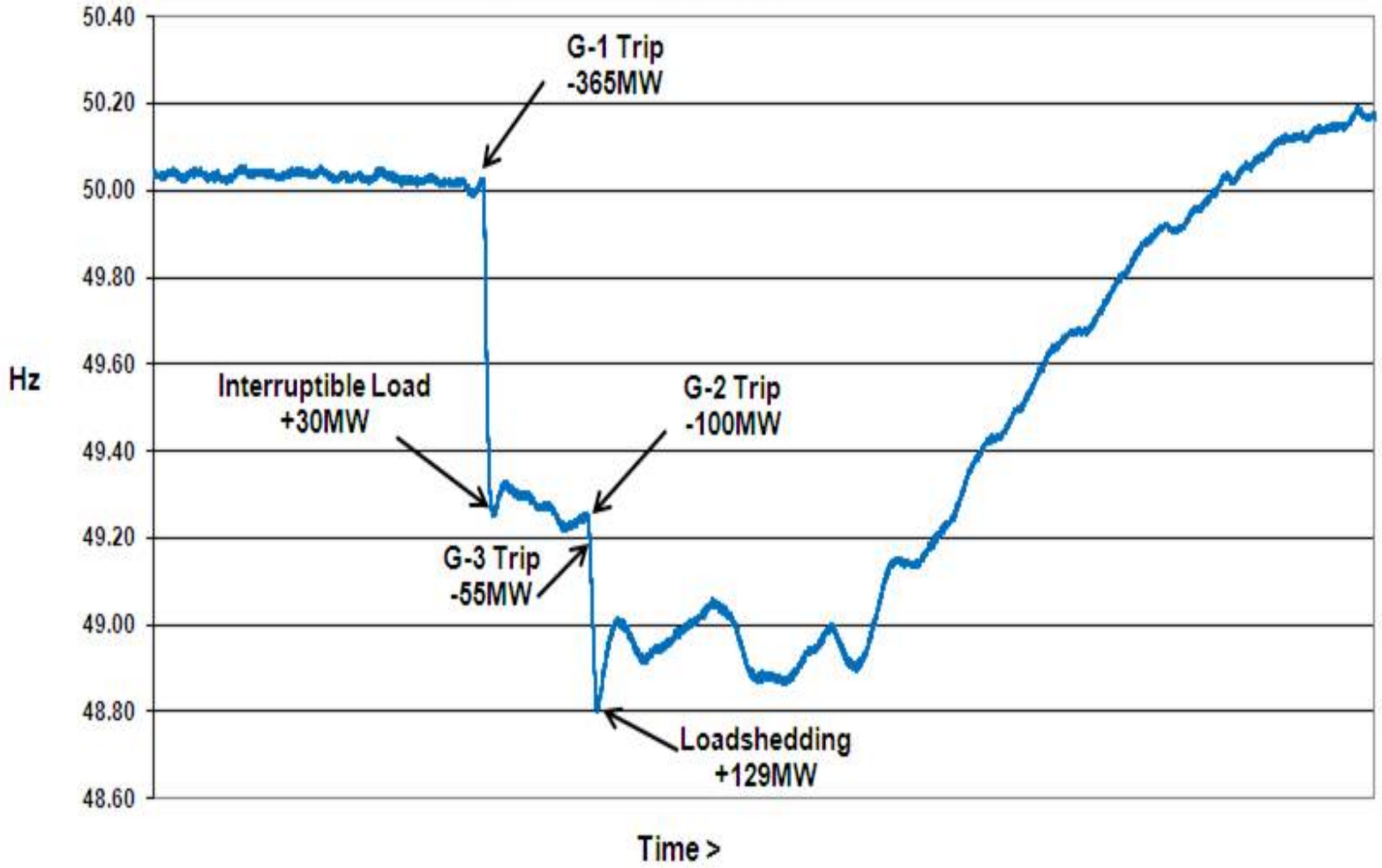
Monday 5th Sept 2011



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Issues arising from trip

- This was a G-3 event –2 generators failed to 'ride through' the event or 'tripped in sympathy' with first trip
- Low Frequency Load Shedding – this did not operate as planned leading to an inequitable distribution of customers shed and delaying the return to normal operation
- Three fast start units either failed to start or tripped on starting

Looking Forward

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Winter Outlook

- Moyle has been forced completely out of service since Sept but is expected to be back in full service by end of December
- The four machines at Turlough Hill on outage are due to return months Dec, Feb, Mar & Jun
- There is not expected to be any capacity issues over the winter period (even if Moyle's return is delayed)

Main challenges year ahead

- Intraday gate introduces more uncertainty with process & staffing changes required in control room
- EWIC –changes required to permit operation from control room, also, this will add more non synchronous & in effect more priority dispatch to the system
- Scheduling and Dispatch – increasing interconnection and priority dispatch plant along with implementation of priority dispatch principles and tie-breaking

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Thank You

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