

# SEM Integration Workshop

Dundalk, Monday 14<sup>th</sup> October

Mary Doorly  
Irish Wind Energy Association

# IWEA/NIRIG Industry Representation

## What we represent:

- Irish Wind Energy Association (IWEA)
  - >200 members
  - majority of connected and operational renewable generation
  - >85% of contracted projects in Gate 1, 2 and Gate 3
- Northern Ireland Renewable Industry Group (NIRIG)
  - represents IWEA and Renewable UK in Northern Ireland
  - >30 companies actively involved
  - >85% of operational renewable generation

**3407**  
Currently  
employed in  
ROI

## Who we represent:

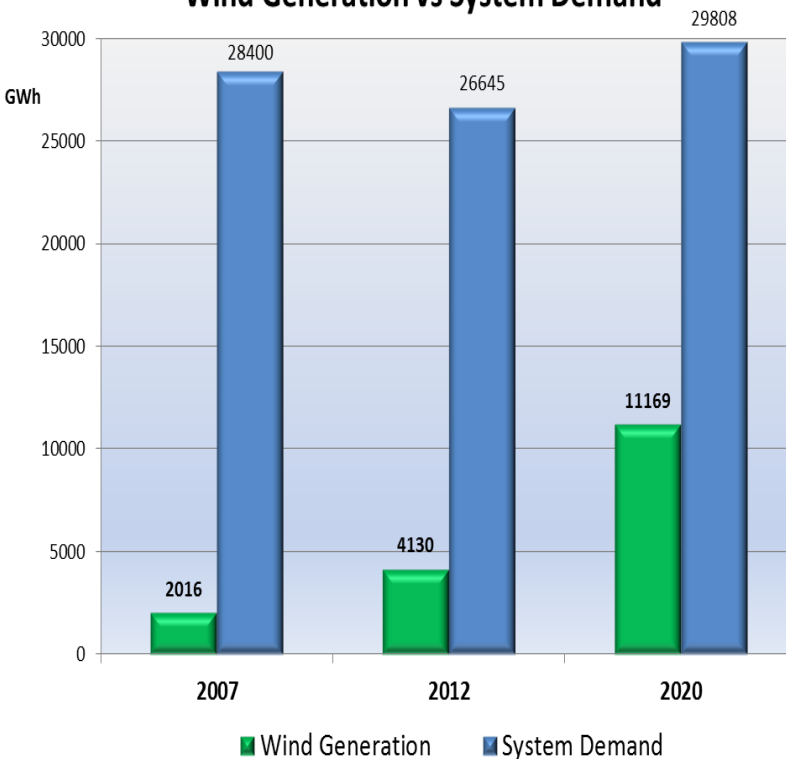
- All large, medium and many small developers
- Financial, legal advisory, consultancy and contractor firms involved in renewable sector in Ireland/NI

# IWEA Members



# Why is SEM Integration so important to IWEA?

Wind Generation vs System Demand

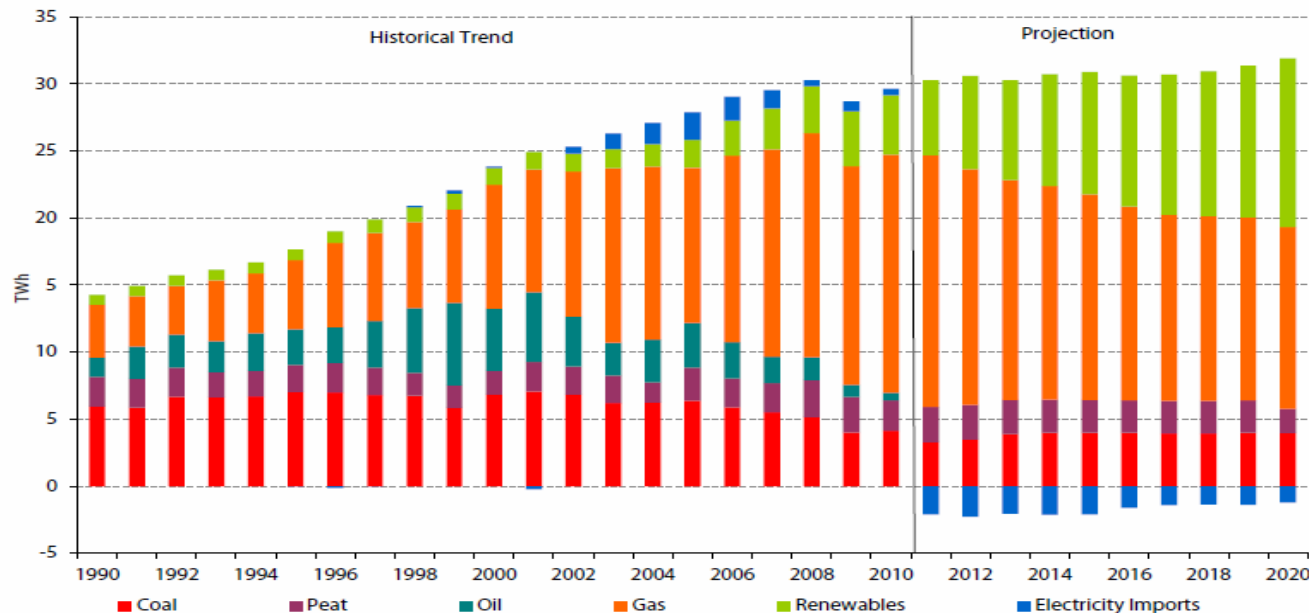


- Wind is a Day 1 issue
  - 2388.1MW wind installed All-Island at end Q2 2013
  - Wind provided approx. 14.4% of the electricity on the island of Ireland in 2012
  - At times wind provides 50% of instantaneous demand
  - Wind exceeds 40% of instantaneous demand approximately 50 days a year.
- Wind is a fundamental part of the market, and should take equal footing with other forms of generation and supply in the market.

# Looking out to 2020

- Renewables will contribute at least 40% of electricity mix
  - Wind will contribute at least 37%
  - Wind is likely to be largest individual provider in the energy mix
  - We recognise the need for flexible conventional plant
  - Potential export of renewable energy
- The new market needs to function for wind energy

Figure 16 Electricity Generation Output by Fuel Source 1990–2020 (NEEAP/NREAP)



Source: SEAI Energy  
Forecasts for Ireland to 2020  
(2011)

# Things that have worked well in **SEM**

- The provision of guaranteed market liquidity
- Control of market power
- The provision of a stable, transparent and systematic platform for participants
- Equity across participant types delivered through the use of a single market price.

# New Market Requirements

- The absolute interpretation of **priority dispatch** for generation using renewable energy sources should be maintained as a key principle in the new market arrangements.
- Any new market should provide **a stable investment framework** for renewable energy projects and the required flexible conventional generation and protect the commerciality of projects.
- The market should provide **efficient signals for export** to ensure that there is efficient trade on the interconnectors and that they are not importing at times of high wind.
- **Capacity payments** should be retained.
- There should be **no impediments to ancillary services payments**.

# New Market Requirements cont'd

- The market should be **open to all generators**.
- **Market liquidity** is essential.
- The new market arrangements should be **non-discriminatory** and **cost-reflective**. Wholesale market obligations should be minimised for all, while still ensuring that the customer is protected.
- **Wind generation should be treated on an equitable basis** as all other parties in the new market arrangements (meaning no explicit penalties for imbalance settlement and the provision of compensation for deviation from the market schedule).
- Any redesigned market must provide a **clear market reference price** which renewable generation can access in a systematic way and which can be referenced by support schemes.
- **Firm access** should be retained.



# Challenges

- How should Priority Dispatch be facilitated in the new market?
- It has been decided that central dispatch will continue to be a feature of the market – at which timeframes will this apply?
- The timelines for detailed design and implementation will be challenging – there is concern that the process will be rushed

# Market Timeframes

- Participation should not be mandatory in all timeframes
  - This would be a barrier to entry for smaller participants
- Forwards Market
  - There needs to be increased liquidity in the forwards market
- Day Ahead
  - Price Coupling takes place in this timeframe
  - Need for clear and efficient market export signals during possible periods of curtailment

# Market Timeframes

- **Intra-Day**
  - There is a significant amount of work required to establish how continuous intraday trading can be implemented in the context of central dispatch
  - Intraday will enable more efficient trading of renewable energy due to improved forecasts
  - Efficient market processes and pricing should allow effective import and export by market participants with minimal remedial intervention in the market from the system operators
  - However, system operator intervention in the market may be required from time to time particularly to ensure the feasibility of the dispatch and to reduce overall curtailment for renewable generation
- **Balancing timeframe**
  - Market liquidity will be important to ensure generators can trade out their positions.
  - Options for aggregators to participate in the market should be considered as variations in the system are best managed on an aggregate basis by a single agent.
  - While market design should enable more efficient use of interconnectors to avoid wind curtailment, there should still be an opportunity for TSO to trade if required

# Other considerations

- Any new market design should enable demand side measures to promote the flexibility of the electricity system
- Timelines for implementation will be critical.
- Need to ensure appropriate stakeholder consultation
  - Stakeholder fora
  - Bilateral Meetings

# Next steps for IWEA

- IWEA will continue to engage actively in this process
- Clear priority workstream for IWEA
- Have increased resourcing
  - Internal and external
- Wind is a fundamental part of the market now and hence must be central to any new design
- Future energy system has renewables at the core – the market will need to reflect this

# IWEA Members

