Integrating Renewables

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Overview

- EirGrid's policy on renewables
- Where we are now
- What lies ahead
- EirGrid collaborations
- Conclusion

EirGrid's Renewables Policy

Committed to national renewables targets

As a core part of our corporate objective of becoming a World Class TSO, EirGrid intends to be a world leader in the facilitation of renewables. In order to achieve this, EirGrid is committed to proactively working with all stakeholders and customers to ensure all government targets in relation to renewables are realised while ensuring the continued security, safety and reliability of the power system.

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In summary, EirGrid is committed to supporting the achievement of national renewables targets in a co-ordinated, proactive and transparent manner.

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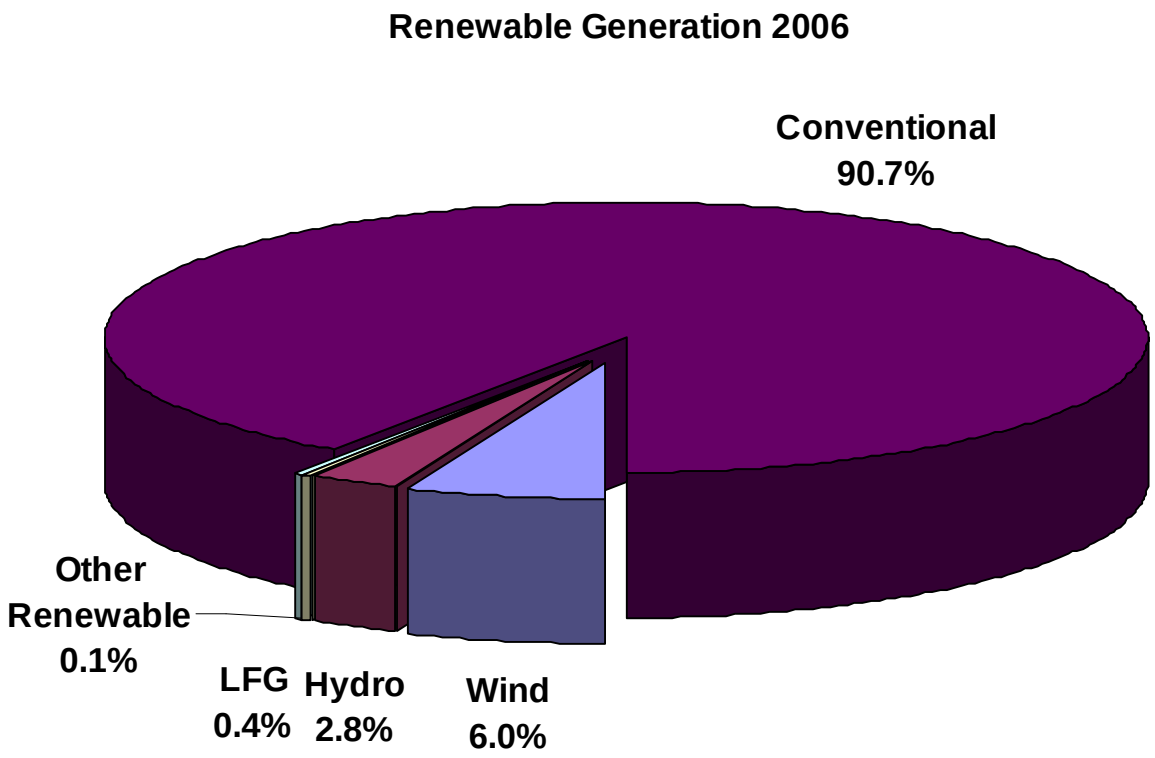
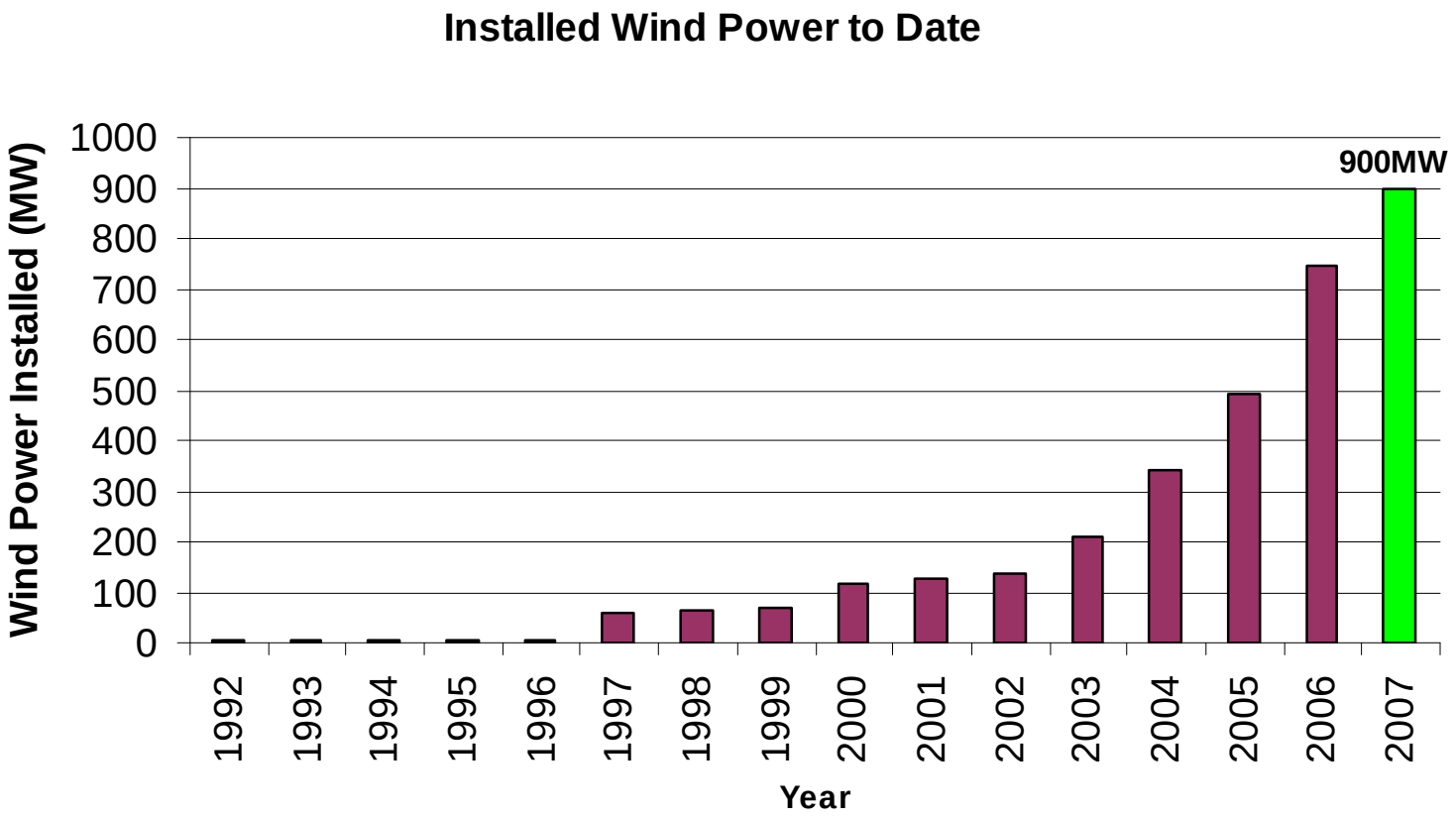
The Successes

Over 9% Energy from Renewables (2006)



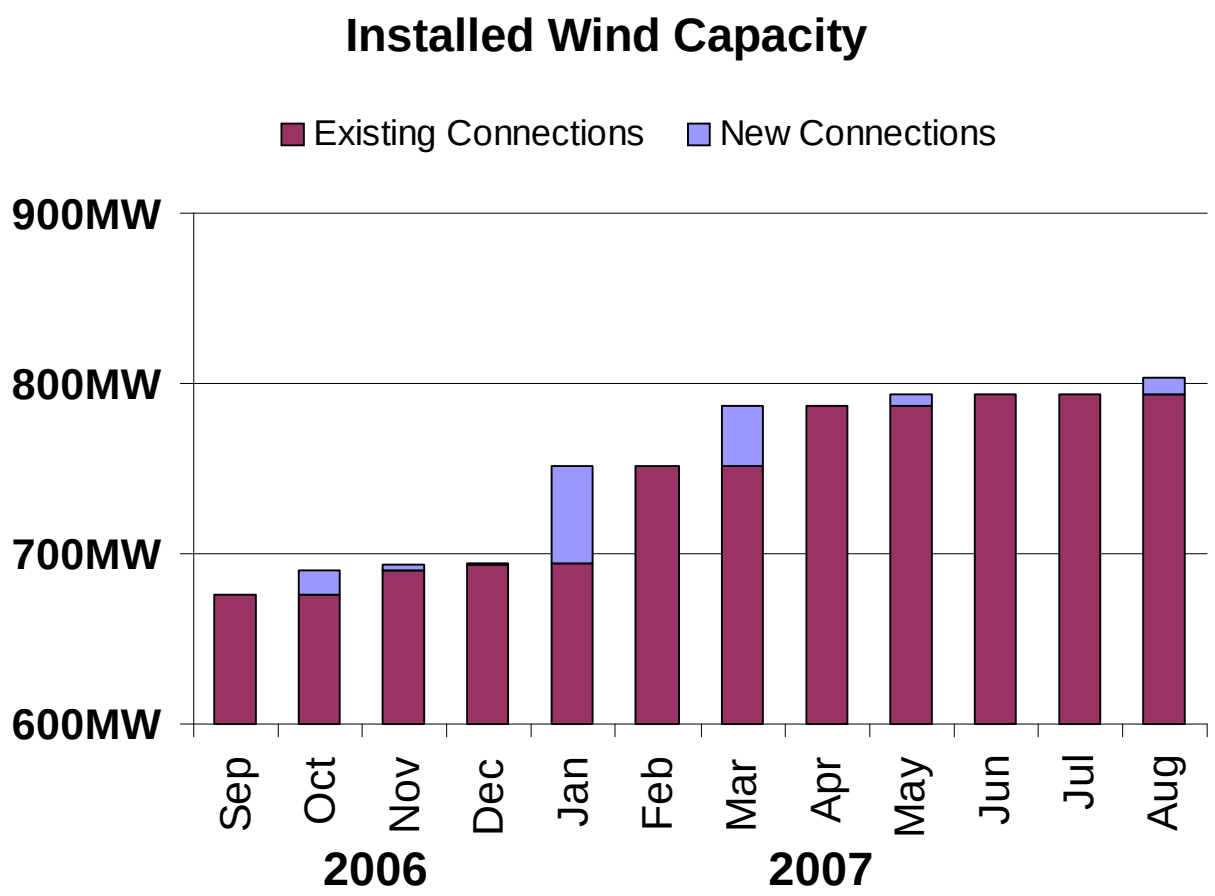
The Successes

800MW of Wind Generation Integrated to Date



The Successes

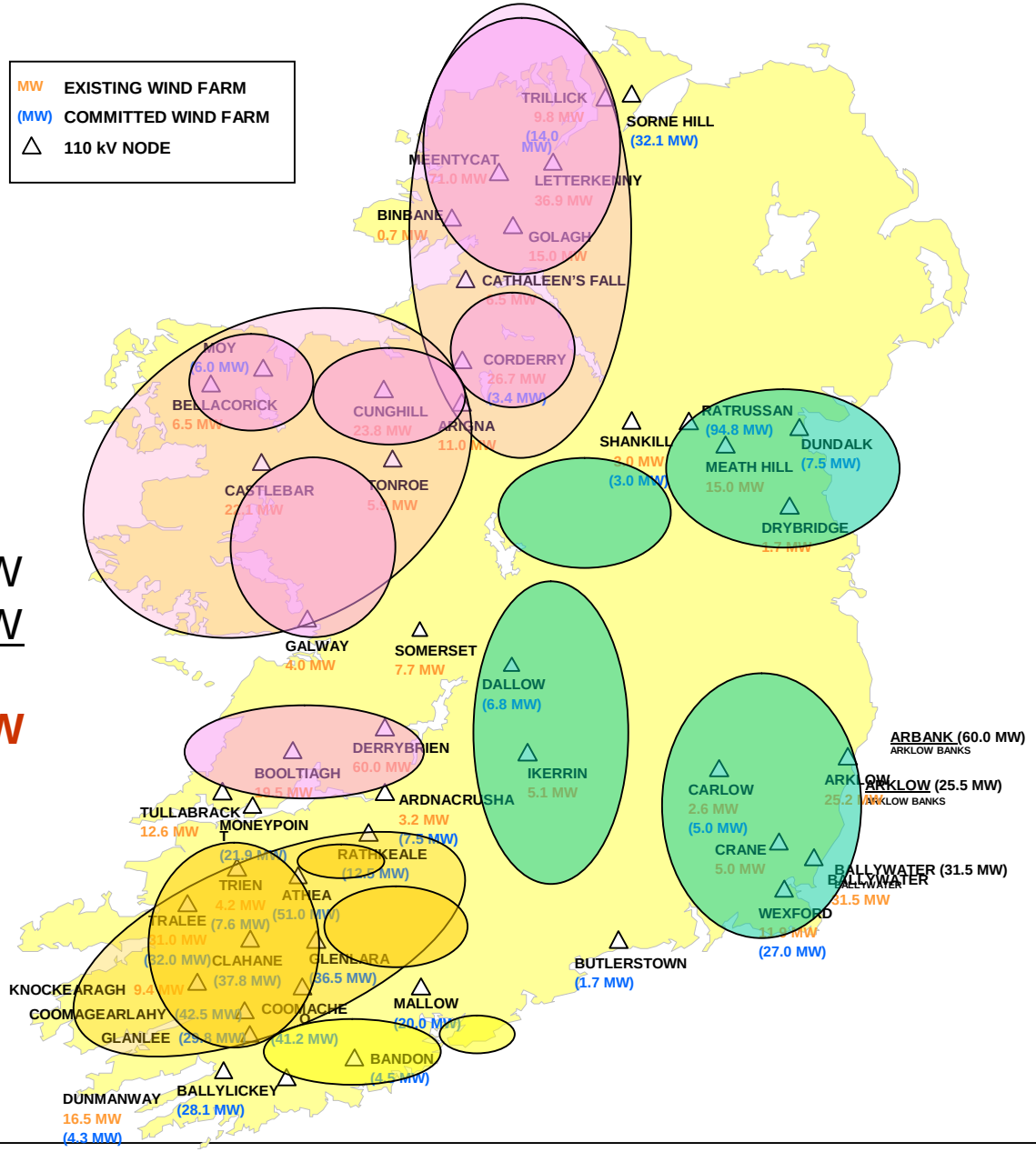
Over 100MW of Wind Generation Integrated this Year



Gate 2

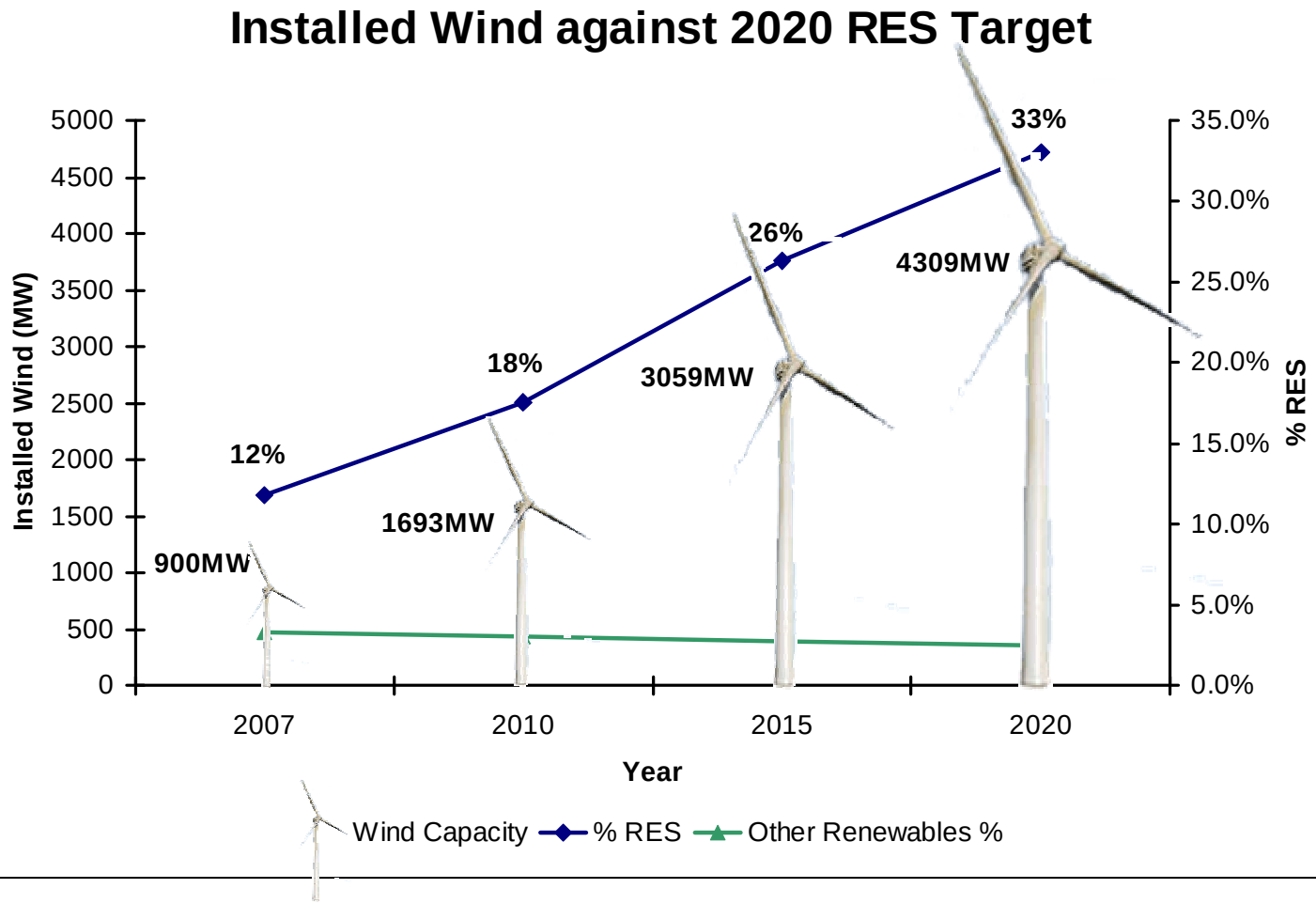
451MW Contracted

Connected	**803MW**
Contracted	451MW
Offer Process	1344MW
In Queue	2830MW
Total:	**5428MW**



What Lies Ahead

33% of Energy from Renewable Sources by 2020



What Lies Ahead

The Challenges

- Frequency regulation
- Reactive power support
- Operational planning
- Network planning
- Wind forecasting
- Processing, planning and construction of unprecedented numbers of connections
- Flexible plant
- Interconnection

EirGrid Collaborations

Committed to proactive engagement

International

- Utilities Wind Integration Group (UWIG)
- International Energy Agency Task 25 – Design and Operation of Power Systems with Large Amounts of Wind Power

European

- European Wind Integration Study (EWIS)
- ANEMOS, ANEMOS.plus (wind power prediction)

National/All Island

- All Island 2020 Grid Study
- IWEA, SEI, CER, Government

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Conclusions

- 800MW of wind generation integrated successfully to date
- EirGrid supportive of government targets
- Continued working with all stakeholders is crucial to success
- EirGrid well placed an on track for successful integration of 33% renewables by 2020

EirGrid's Policy on Renewables

As a core part of our corporate objective of becoming a World Class TSO, EirGrid intends to be a world leader in the facilitation of renewables. In order to achieve this, EirGrid is committed to proactively working with all stakeholders and customers to ensure all government targets in relation to renewables are realised while ensuring the continued security, safety and reliability of the power system.

Implicit in this objective is a commitment to ensure a fair, transparent and proactive approach towards the integration of all forms of renewable energy on the national power system. We believe that any issues and challenges relating to the accommodation of any particular technology on the system should be addressed in a fair and open manner in order to achieve resolution in the most constructive and efficient manner possible.

Achieving these objectives will involve:

- Proactively engaging with customers and stakeholders in a constructive multi-lateral manner to ensure early identification of integration issues and their resolution.
- Ensuring a best-in-class approach to tackling the network and operational issues relating to the integration of renewables, including:
    - Embracing existing and emerging technologies appropriately
    - Engaging in, supporting and promoting Research and Development work
    - Identifying and implementing international best practice
- Working constructively to inform energy policy on the incorporation of the contribution of renewables, within the overall context of ensuring the sustainability, security and competitiveness of energy supply.

In summary, EirGrid is committed to supporting the achievement of national renewables targets in a co-ordinated, proactive and transparent manner.

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Regions with High Wind Penetration

Region	$\frac{\text{Maximum Wind Power}}{\text{Lowest Consumption + Export Capacity}}$
West Denmark	58%
Schleswig Holstein (Germany)	44%
Gotland (Sweden)	40%
Ireland (800MW wind, 300 Export)	38%

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