

# SONI Operational Planning activity

EirGrid Conference  
4th November 2010



# Introduction

- Transmission network (connection & development)
- Distribution network (connection & development)
- SEM
- Generation mix
- Stakeholder expectations

# Context

- Connection of large scale renewables along with:
  - Smart Grids
  - Electric vehicles
  - Electric heating
  - Demand Side activity
  - Energy conservation
- 
- All these initiatives bring their own aspects of uncertainty, intermittency, complexity and issues for all of us involved in planning and developing the electricity transmission infrastructure

# Strategic Environmental Assessment (SEA)

- Off-shore sea completed

Possible sites identified for Off-shore Generation  
No active applications at present

# Strategic Environmental Assessment (SEA)

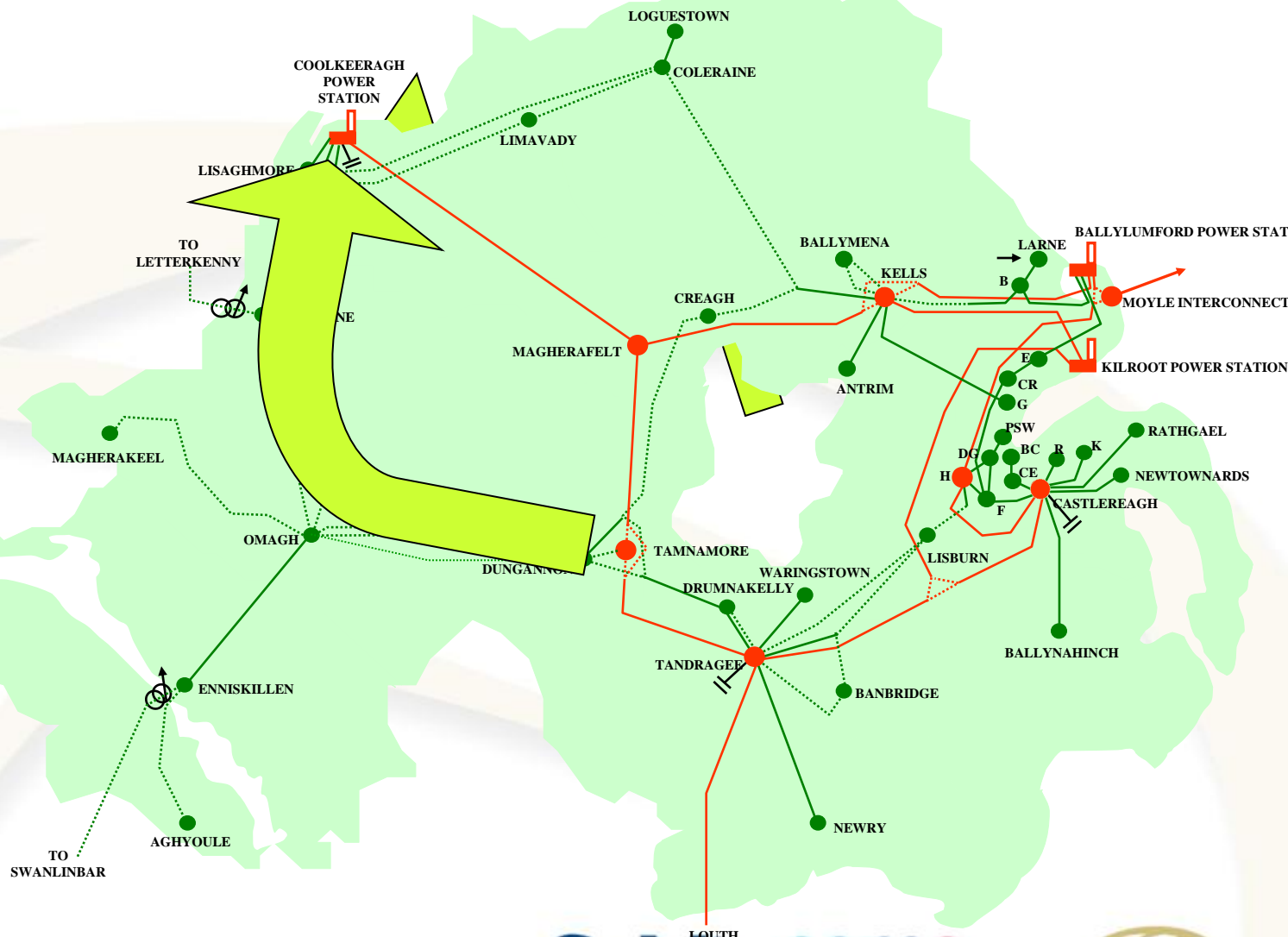
- On-shore commenced  
DEIT Project supported by consultants  
NIE/SONI/Industry/Government Departments involved  
Consider all renewable generation /NIE Infrastructure  
To include on-shore connections from Off-shore  
generations  
To meet all legislative requirements
- Government and Industry Stakeholders working together to  
meet the challenges set by the 2020 targets.

# Present SONI Activity

- Transmission Infrastructure development - RIDP (NIE/EirGrid/SONI)
- TSO Technical Studies
  - Strategic Environmental Assessment (SEA) - On-Shore
- European Involvement
  - North Sea Group
  - ISLES Project
  - 10 Year Development Plan
- Grid Code compliance / monitoring
- Improving interactions



- 275KV DOUBLE CCT
- ... 275KV SINGLE CCT
- 110KV DOUBLE CCT
- ... 110KV SINGLE CCT
- MOYLE HV DC LINK
- POWERSTATION
- 275KV SUBSTATION
- 110KV SUBSTATION
- ⊗ POWER FLOW CONTROLLER
- || MECH SWITCHED CAPACITANCE



# TSO Technical Studies

- Initial studies completed
- Basic premise established
- Next steps identified
  - Review the RoCoF capabilities of generators and distribution protection
  - Recommend full enforcement of all appropriate Grid Codes standards universally.
  - Recommend new Planning and Operation standards where appropriate
  - Develop state of the art operational practices



# European Involvement

- North Sea Group
- ISLES Project
- 10 Year Development Plan (TYNDP)
  - TSOs play a key-role, both as operators and as privileged observers of the system.
  - Meeting EU energy policy targets by 2020 will demand coordinated efforts from all stakeholders in order to mitigate uncertainties, harmonise the legal and regulatory framework, and enhance social acceptance of transmission assets.

# Grid Code compliance / monitoring

- Ensure that the NI Grid Code continues to meet the changing needs of industry
- Seek to harmonise SONI and EirGrid Grid Codes where possible
- SONI have issued a guidance document on Grid Code requirements & testing requirements for WFPS
- Completion of compliance testing in a timely manner
- Signals monitoring – develop and then deliver to agreed standards
- Feedback on individual WFPS performance
- Outage management arrangements (availability)

# Improving Interactions

- Development & fully understanding of the NIE / WFPS / SONI interactions
- Apply SONI UoS Application process
- Development of Connection & TUoS Agreements
- Fully develop NIE / SONI roles to avoid confusion / delays for WFPS developers and operators
- Fully understand Grid and Distribution Code interactions – compliance testing
- Facilitate entry of new players e.g. DSU, AGU and CHP
- Liaise with Regulators and Govt departments as required
- Play a full role in meeting industry targets by working with all stake holders