Grid Development in a Changing Environment

Louis Fisher

EirGrid Group Customer Conference

October 20th 2011

SONI System Operator for Northern Ireland

semo Single Electricity Market Operator

EIRGRID

Presentation Themes

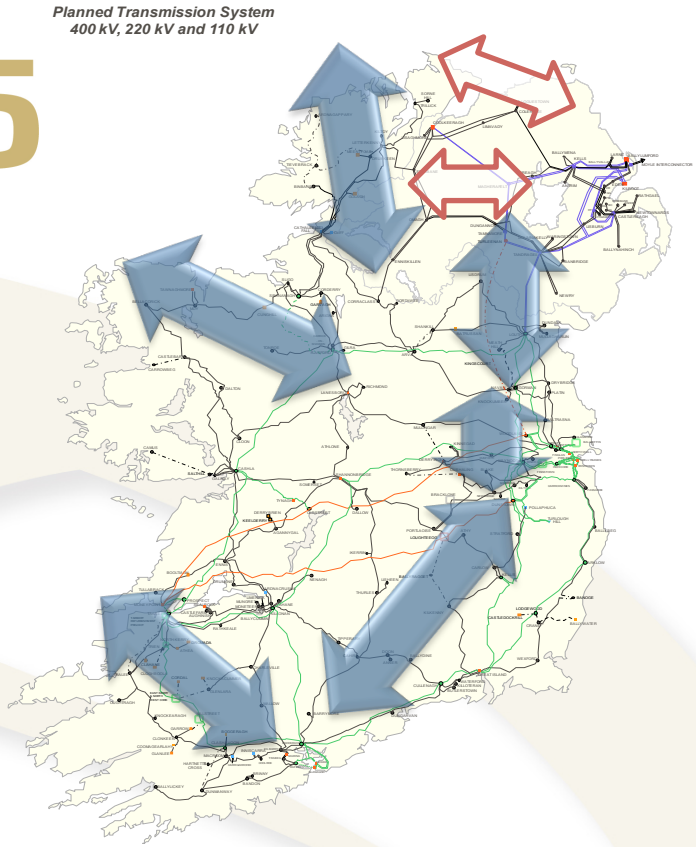
- Progress with Grid25 Projects
- Optimisation of Plans to meet future needs
- Initiatives towards Further Interconnection

SONI System Operator for Northern Ireland
semo Single Electricity Market Operator
EIRGRID

GRID25

Grid Development Strategy to:

- support energy policies: security of supply, sustainability, competitiveness, efficiency
- facilitate economic growth in all regions
- connect renewable and conventional generation
- increase interconnectivity with other systems

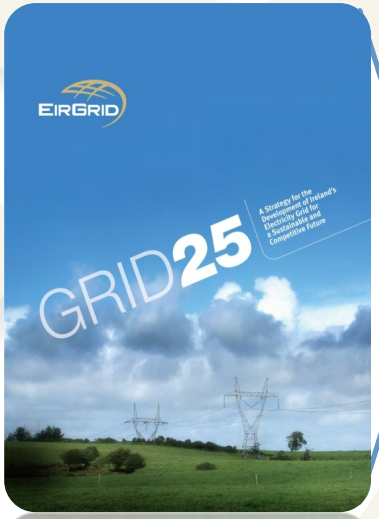




Scale of Development

- €4 billion investment
- 2,200 km uprating
- 1,050 km new build

3 Phases of Project Life Cycle



Technical and economic studies to prove need and to identify preferred solution

1

Information gathering and consultation to identify preferred site / route and get planning permissions

2

Detailed Design & Construction

3

System Operator for Northern Ireland

Single Electricity Market Operator

EIRGRID

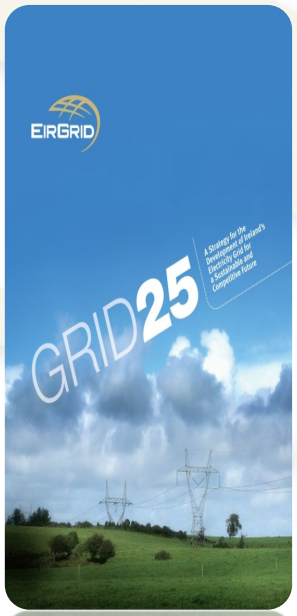
Reduction in Grid25 Costs

- Economic down-turn has eased urgency on some "demand-led" projects
- Cost-Benefit analysis
- New Technologies - High Temperature Low Sag conductor

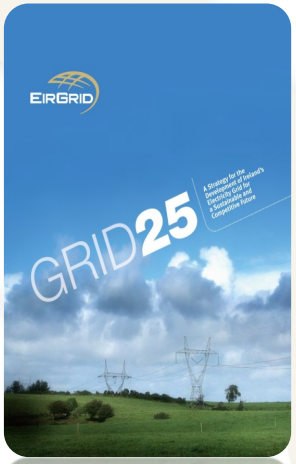
Scale of Development

- More than 300 Projects
- 3.2 €billion investment
- 2,400 km uprating
- 1,000 km new build

€4 bn



€3.2 bn



2008 ***2011***

SONI System Operator for Northern Ireland

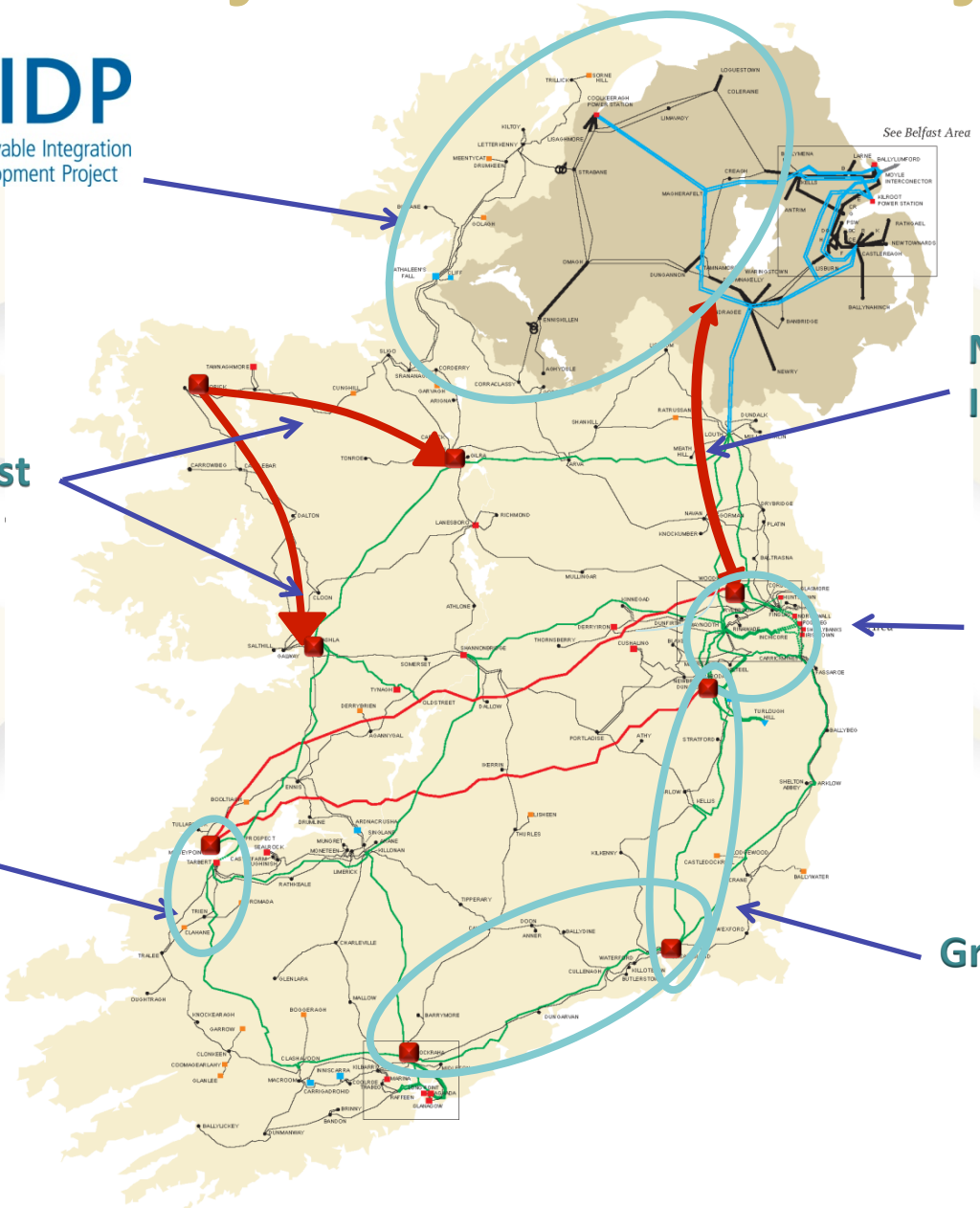
semo Single Electricity Market Operator

EIRGRID

Grid25 Major Backbone Projects

RIDP
Renewable Integration Development Project

<Phase 1>



North-South Interconnector
<Phase 2>

Grid West
<Phase 2>

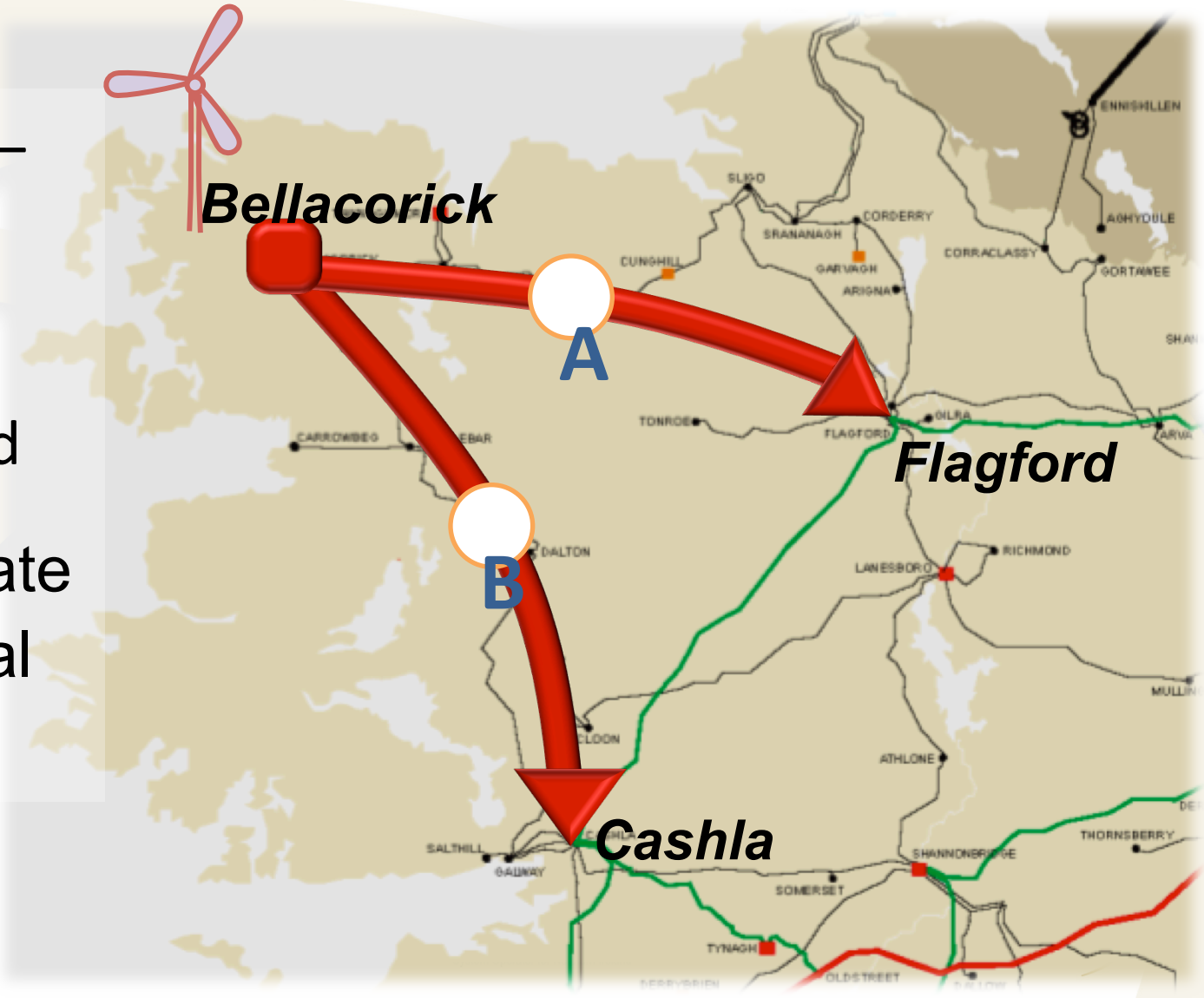
Dublin Ring
<Phase 1>

Shannon-Cork
<Phase 2>

Grid Link
<Phase 2>

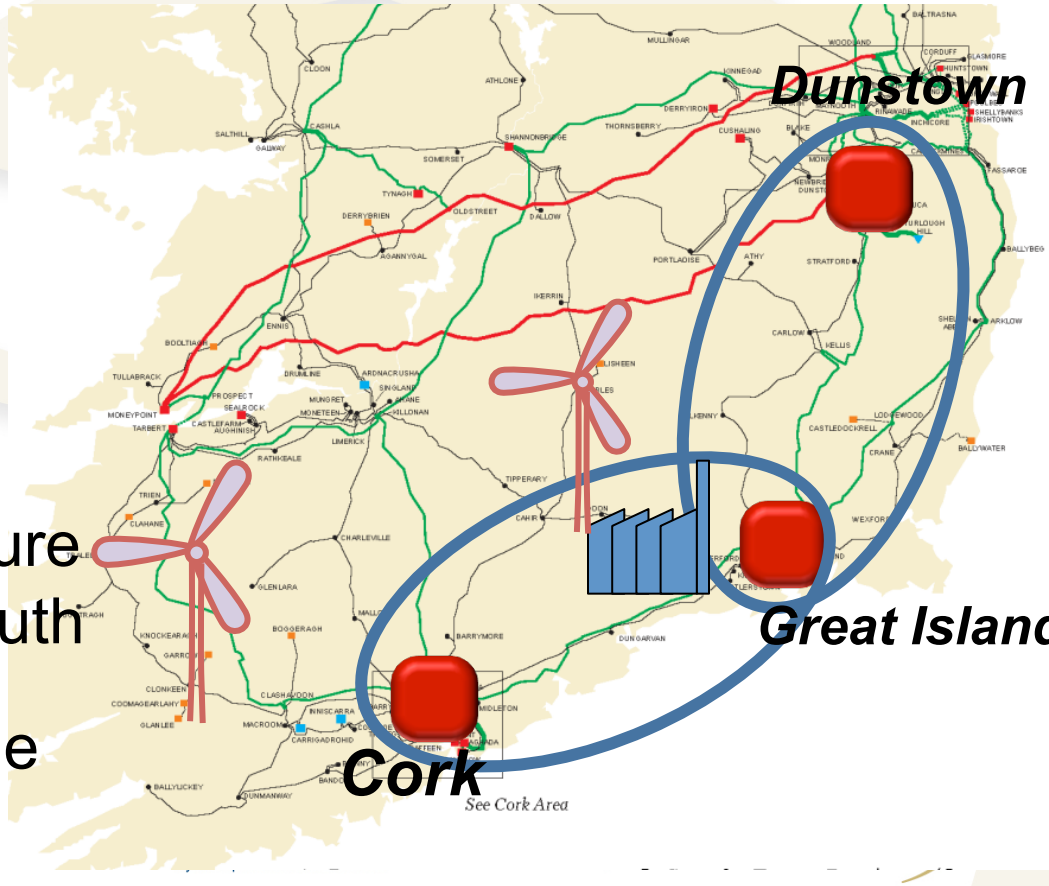
“Grid West” Bellacorick Connection

- 400 kV circuit – A or B
- Some 110 kV works required
- Facilitates Gate 3 and regional development



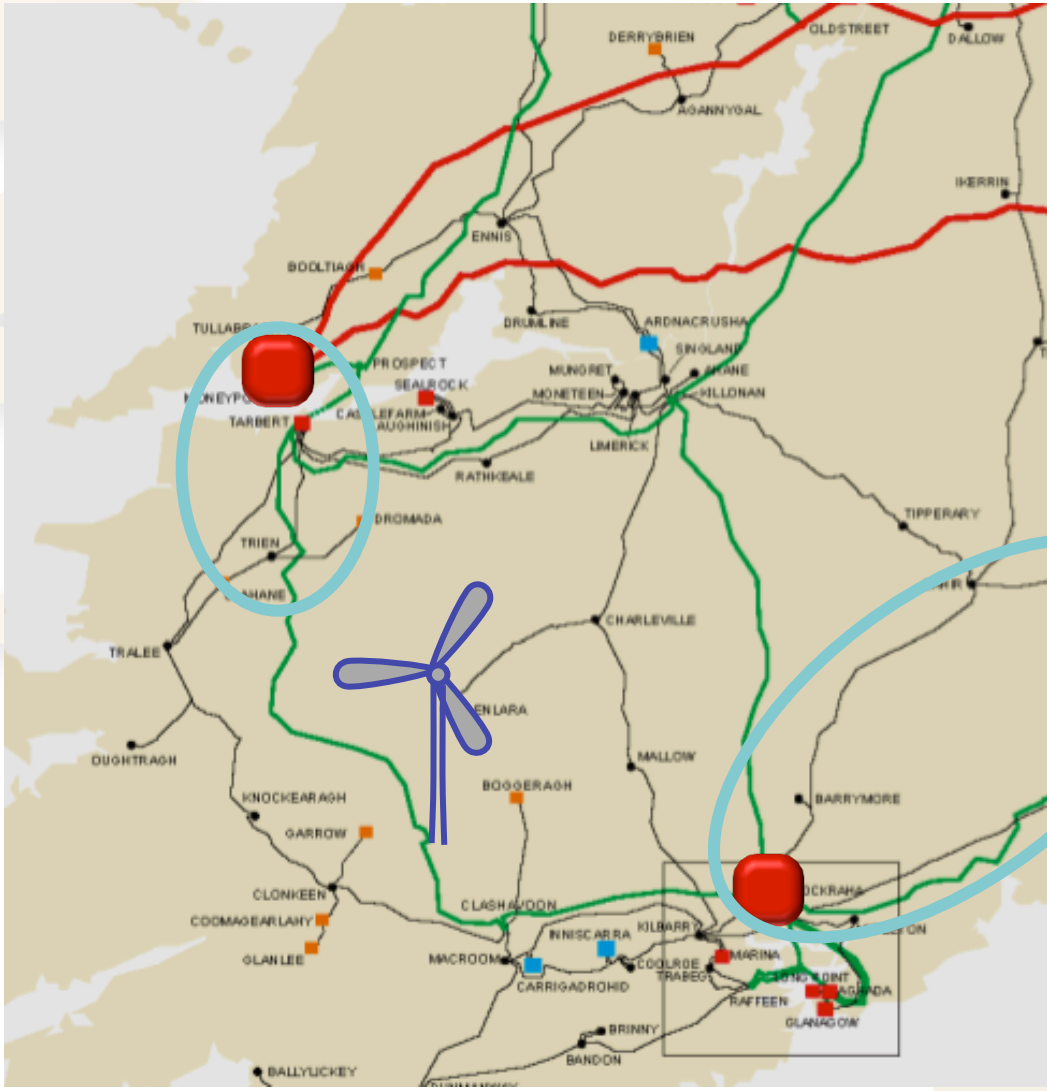
”Grid Link” Cork <–> Dunstown

- 400 kV circuit between South and East
- Facilitates
  - flows from **renewable** generation
  - future **interconnection**
  - efficient use of new/ future **thermal plant** in the south
  - **economic growth** in the south and east



Moneypoint - Cork

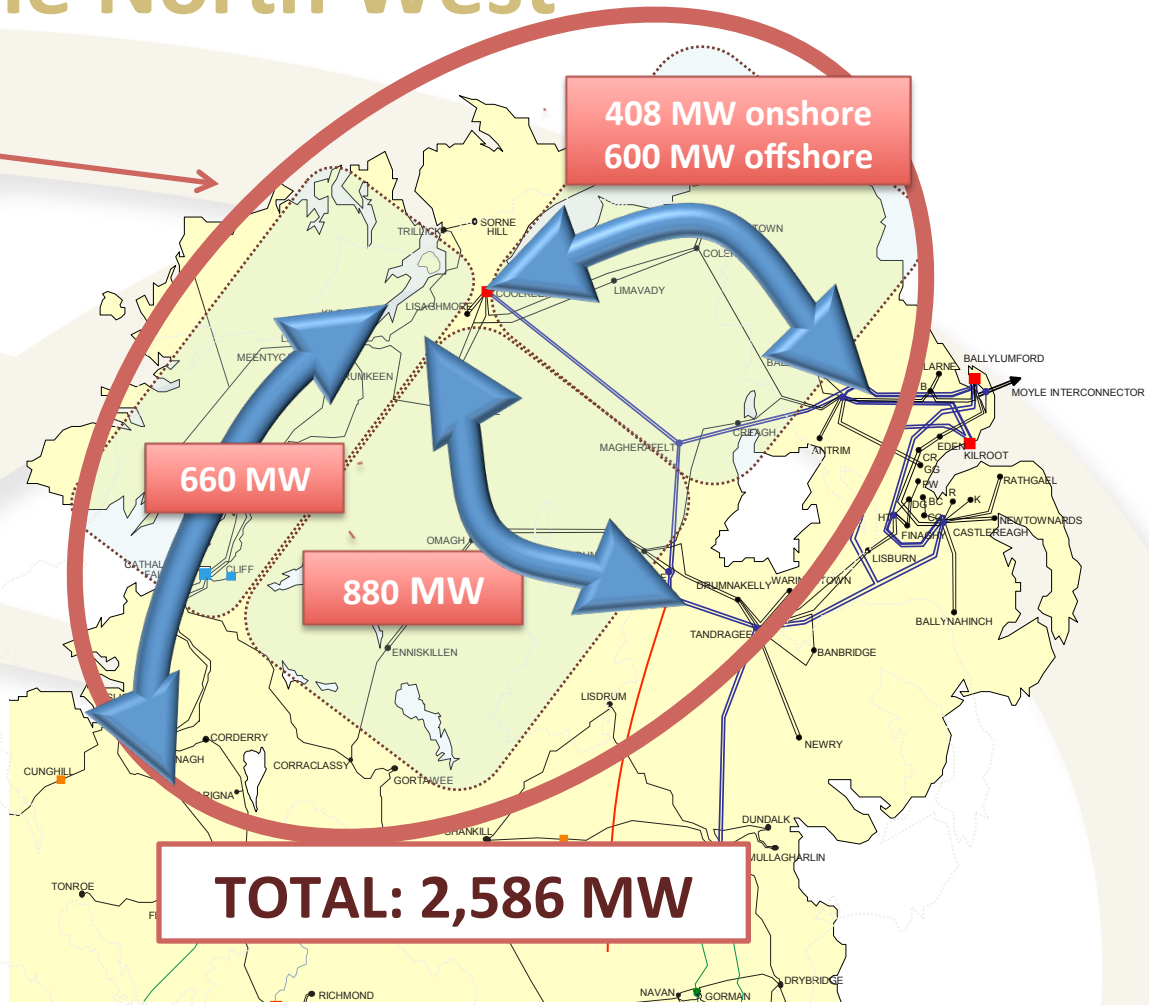
- 400 kV circuit in Shannon Area
- Strengthens network between Moneypoint and Cork
- Facilitates **renewable** generation in Kerry and west Cork
- Currently no economic justification for continuing new 400 kV circuit down to Cork



Renewable Integration Development Project in the North West

RIDP
Renewable Integration Development Project

- Joint study between EirGrid, NIE and SONI
- To identify the best all-island transmission reinforcement scheme to a) meet future demand and b) provide access to renewable generation in the north west of the island



System Operator for Northern Ireland

Single Electricity Market Operator

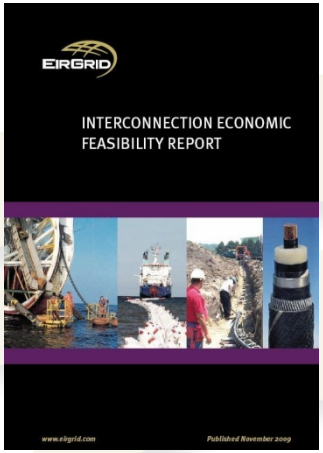
EIRGRID

Dublin Ring

- Long-term strategy is for “ring” around Dublin
  - To secure supplies to Dublin
  - To avoid large flows through Dublin
- Currently re-examining timing in light of down-turn



Further Interconnection





European Network of Transmission System Operators for Electricity

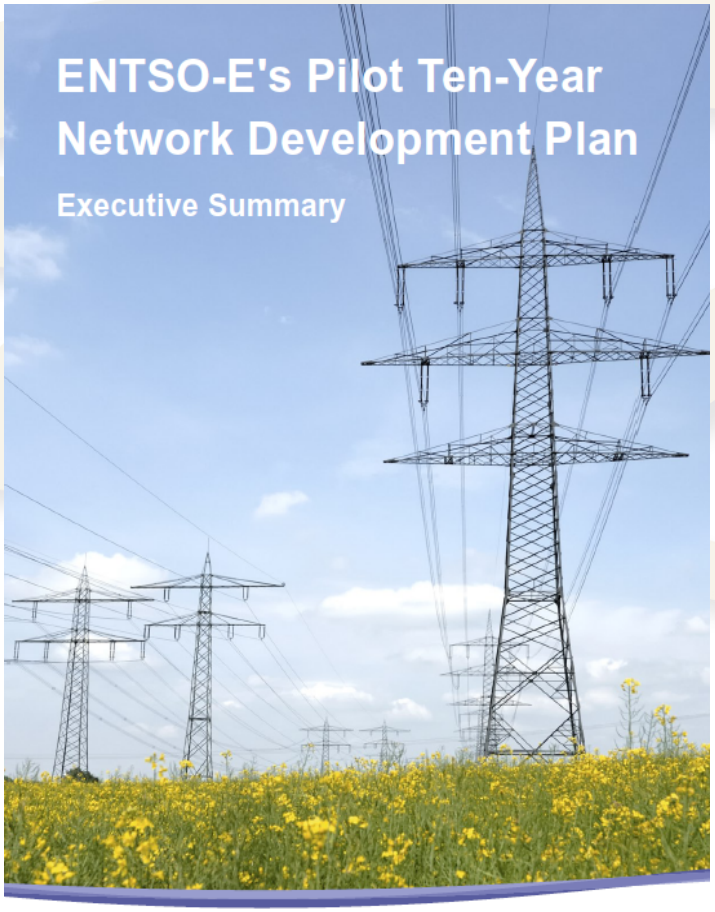
entsoe

TYNDP 2012

Bilateral discussions with our nearest neighbours

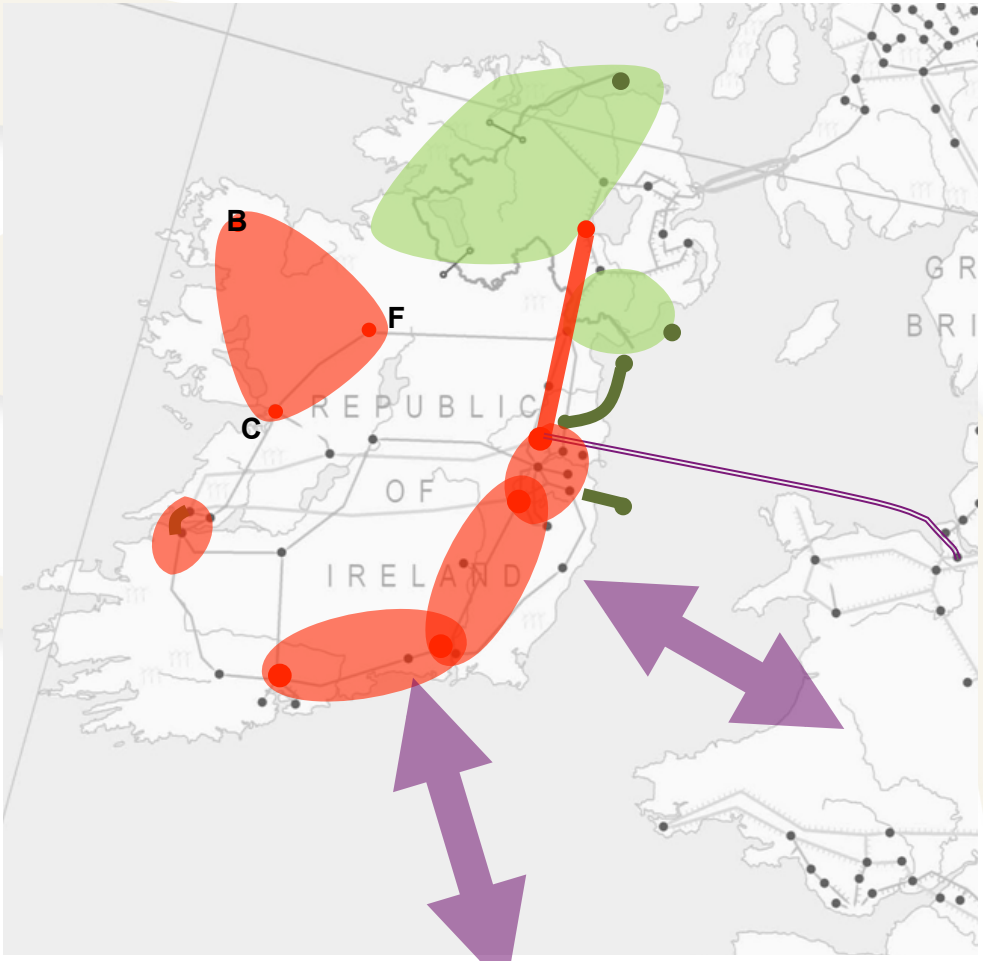
North Seas Countries Offshore Grid Initiative

ENTSO-E's
Ten Year Network Development Plan 2012



European Network of Transmission System Operators for Electricity

entsoe



SONI System Operator for Northern Ireland

semo Single Electricity Market Operator

EIRGRID

Summary

- Significant progress made on major Grid25 projects
- EirGrid flexing its plans to best meet changing circumstances
- Value for money a key factor
- Further interconnection being investigated on a number of fronts





System Operator for Northern Ireland

Single Electricity Market Operator

EIRGRID