

ESB Networks

Presentation to SEAI
Planning Workshop

July 7/8 2010

ESB NETWORKS

Developing 21st
century
Electricity networks

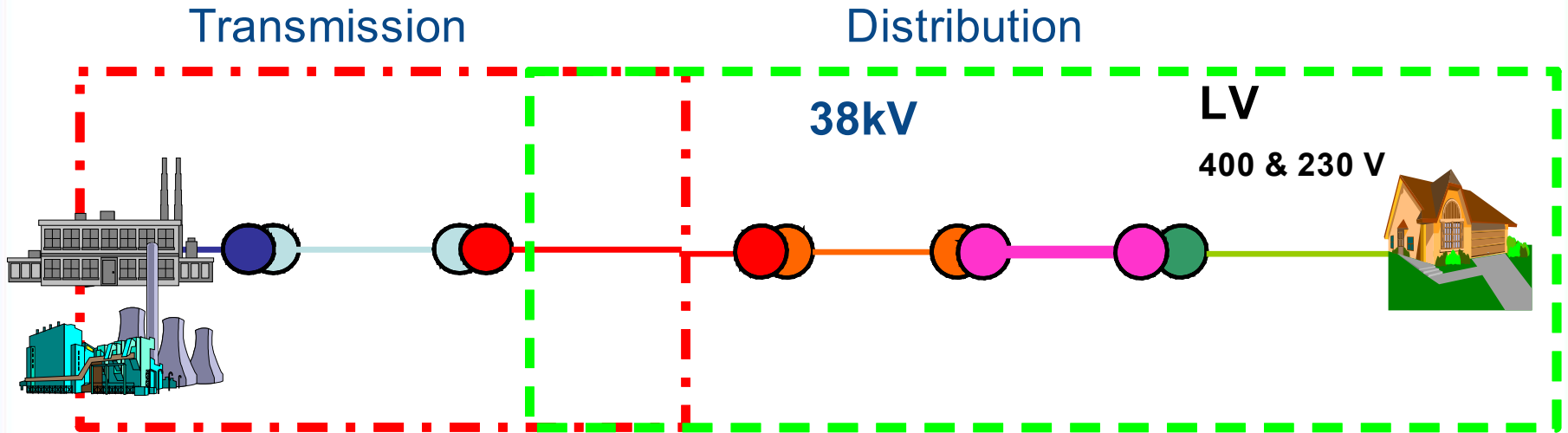


ESB's Strategic Vision To 2020

- World Class Sustainable Networks
- A Renewables Business of Scale
- Best Practice Generation Portfolio
- Customer Focussed Supply Business
- Significant International Presence

And to be a Leader in Carbon Management and Energy Efficiency

Network Assets



Transmission

- 6,300 km of Overhead Network
- 140km of Underground Cables
- 165 HV Stations

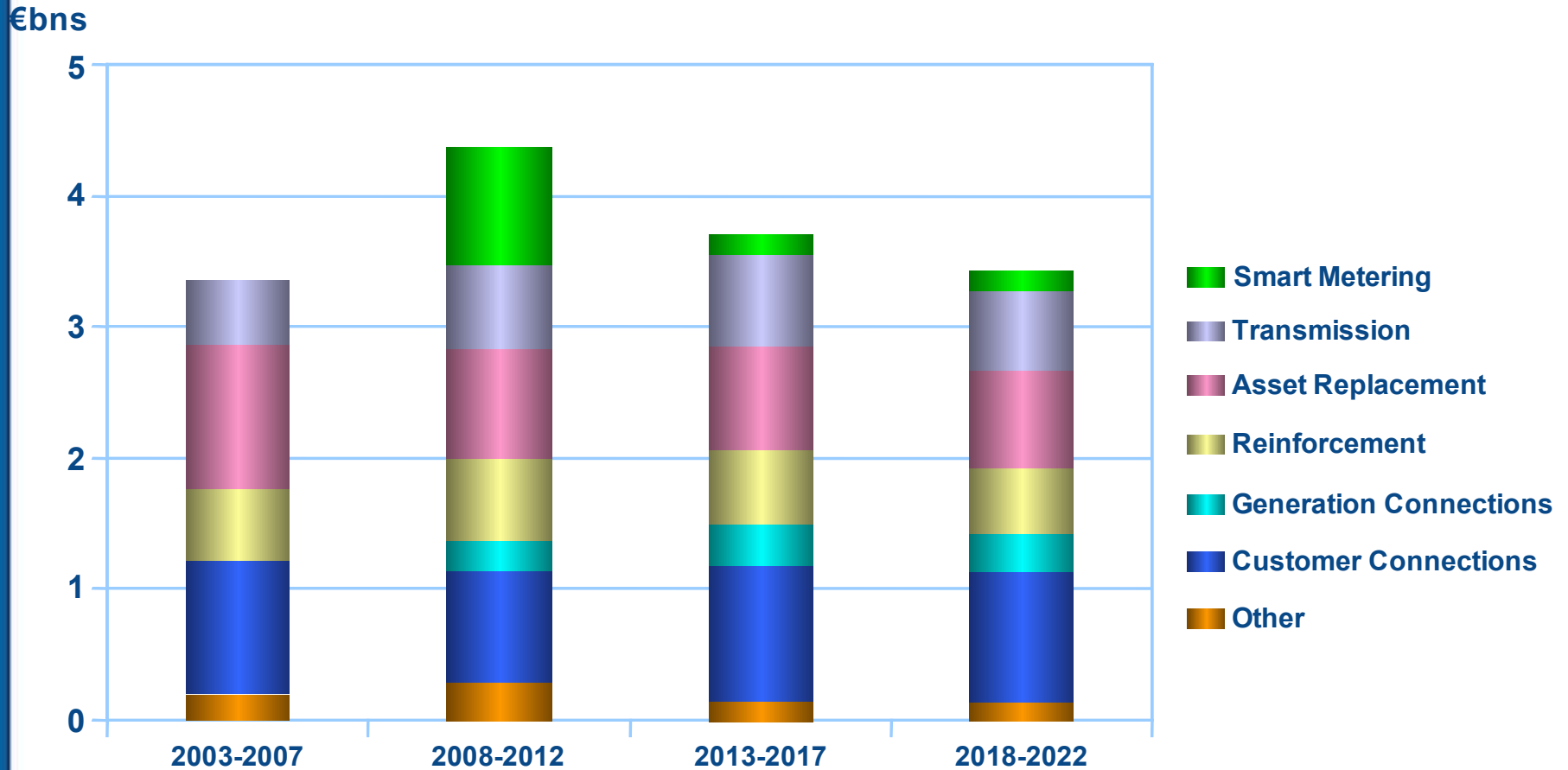
€1B RAB Value

Distribution

- 160,000 km of Lines/Cables
- 630 HV Substations
- 230,000 MV Transformers/Units
- 2m meters

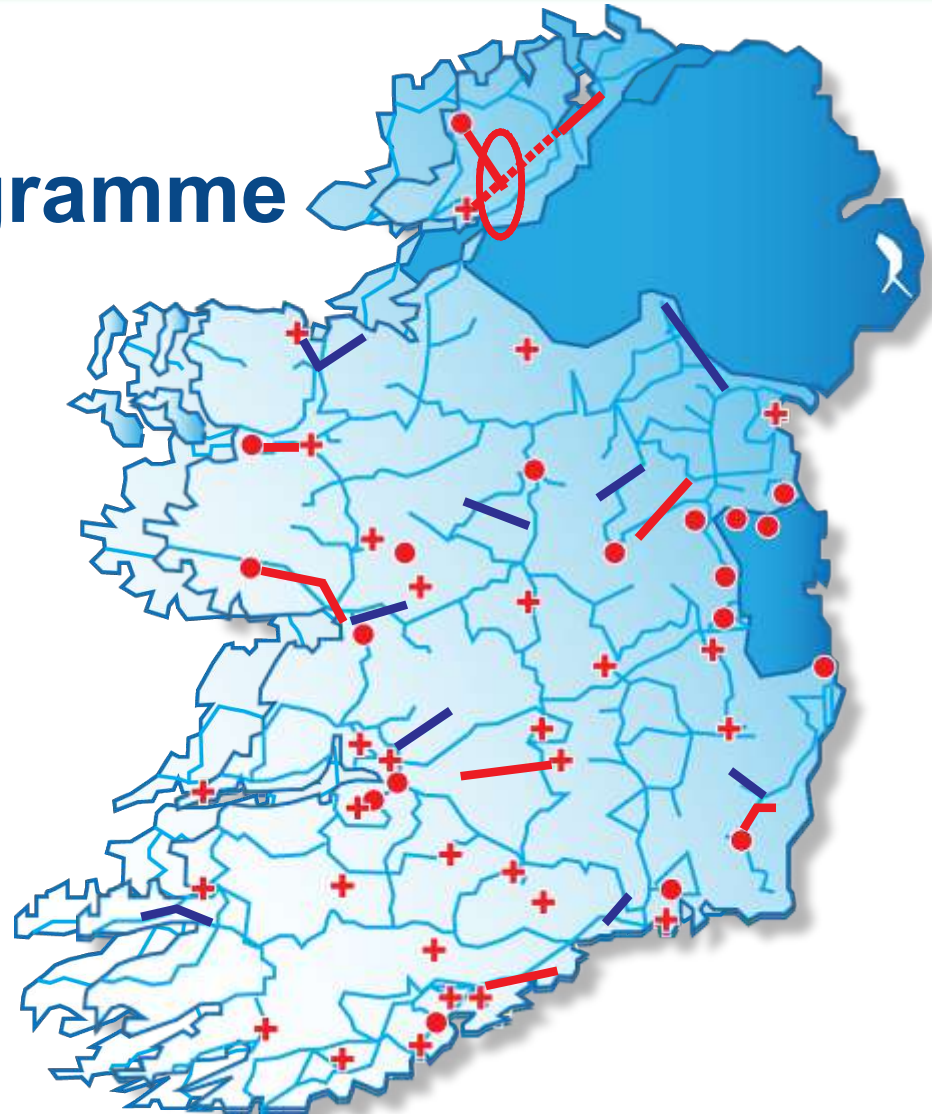
€5B RAB Value

Networks Infrastructure Delivery €10.5 Billion+

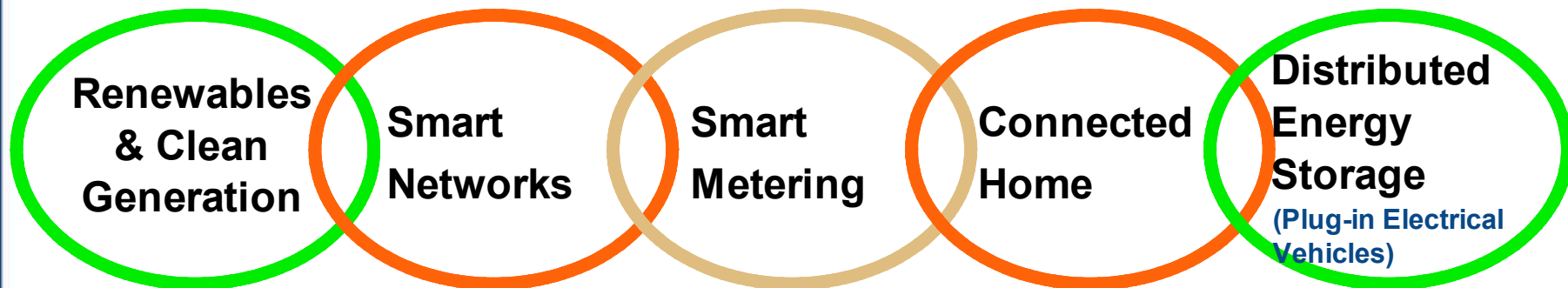


Major National Infrastructure Programme

- + 110kV Development
- + 38kV Development



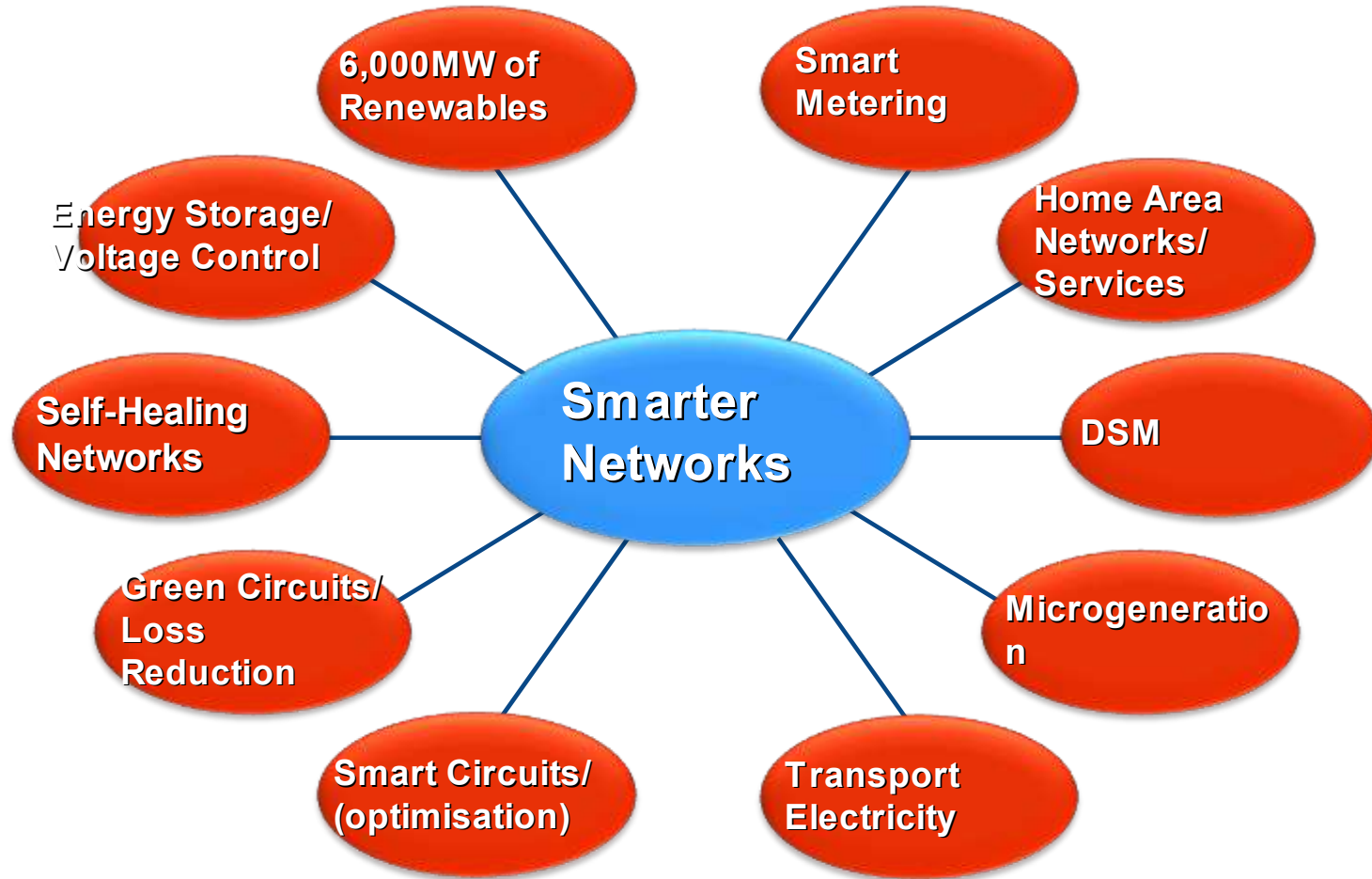
Sustainability Strategy



Internal Sustainability

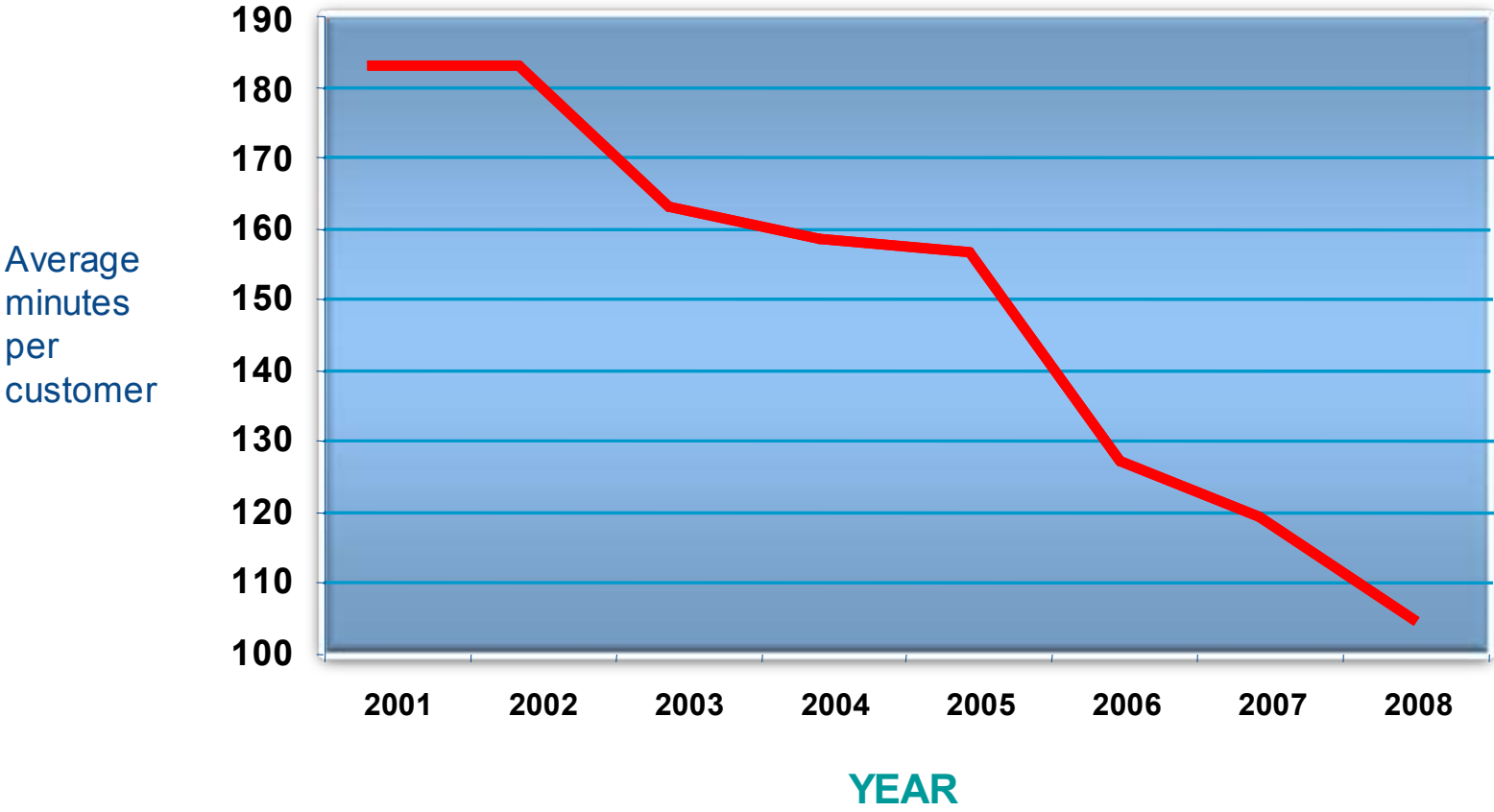
A sustainable energy system connecting with energy aware interactive customers

Smart Networks – Main Road Map Elements



Exciting Challenge

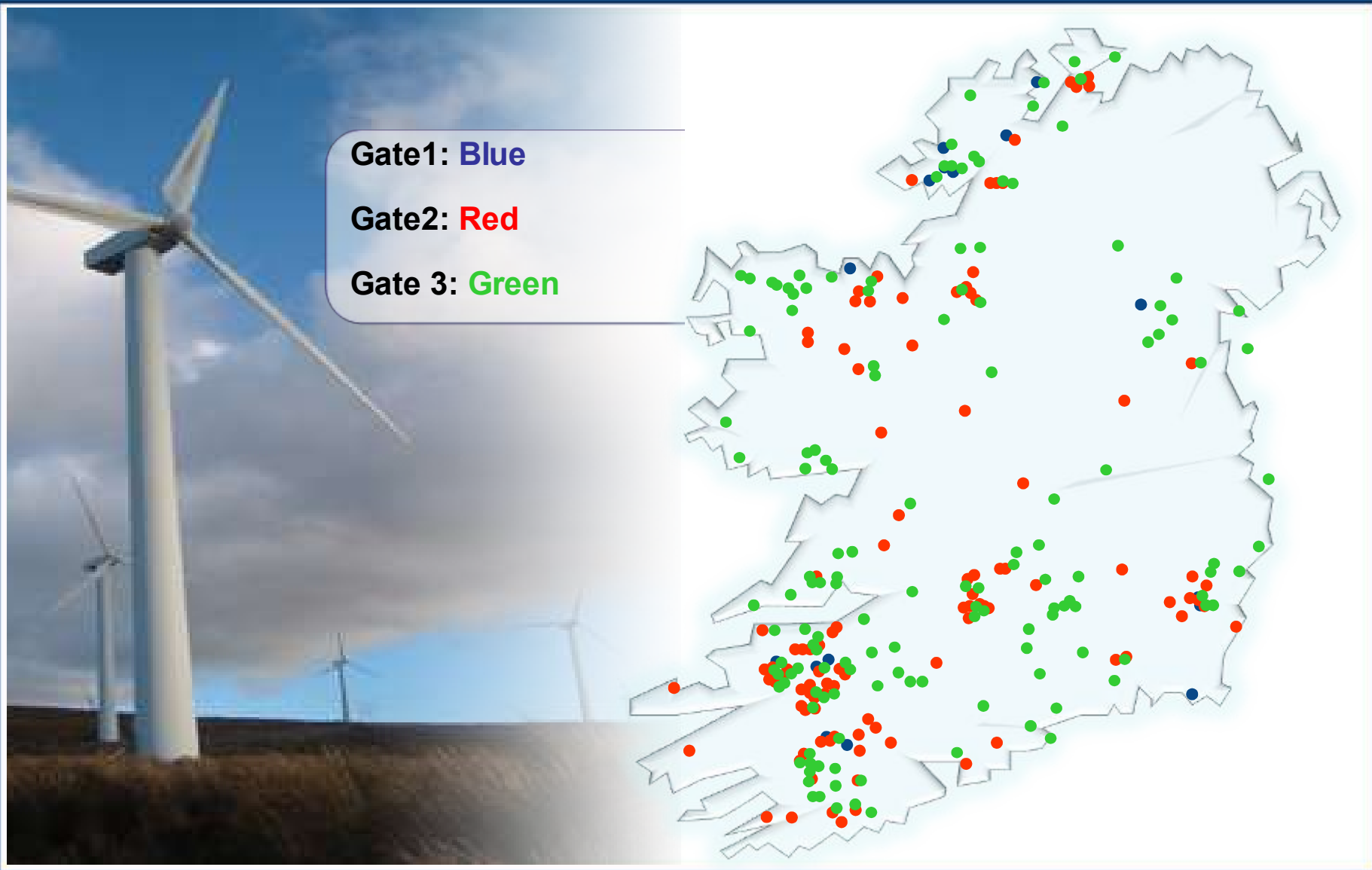
Network Fault Performance





Roll-out of Wind Generation

| | |
|-------------------------------------|----------------|
| Connected | 1380MW |
| Contracted | 1260MW |
| Gate 3 | 3990MW |
| Approved Capacity for Connection | 6630MW |
| In Queue | 11158MW |



Wind Connections (June 2010)



Gate 3 Overview

3990MW renewables (160 applicants)



Transmission nodes decided first

Grid 25 derived transmission network

Offer process started end 2009

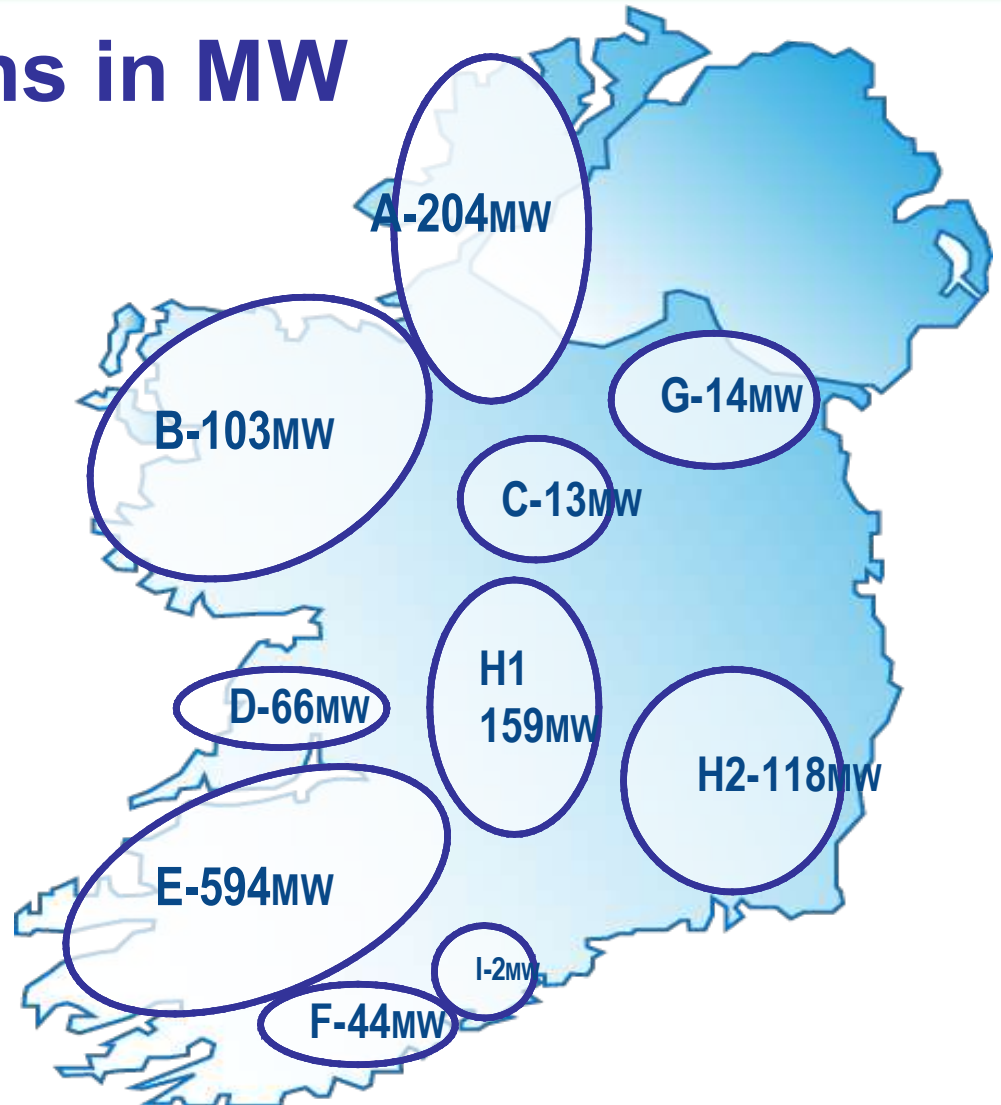
All offers issued by end Q2 2011

Gate 3 Outcome

| Operator | MW | Network Connections |
|---|------|---------------------|
|  | 1941 | 127 |
|  | 2050 | 28 |

Wind Applications in MW

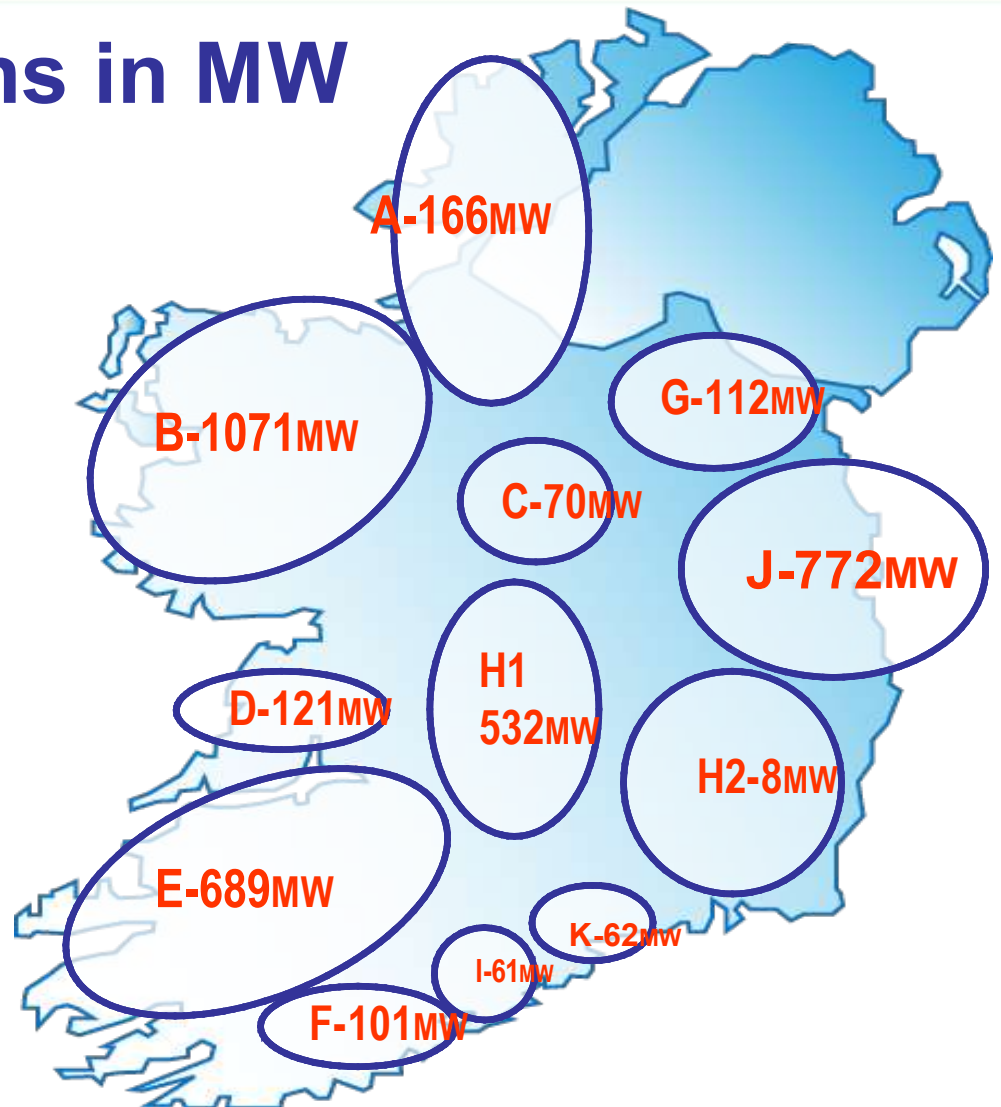
Gate 2 \approx 1300 MW



Wind Applications in MW

Gate 2 \approx 1300 MW

Gate 3 \approx 3900 MW



Gate 3: Innovations

- Transparent method for 110kV node assignments
- Facilitate Developer input for group connection methods
- Holding of Connection Method Briefings pre offer
- Facilitation of cable option pre-offer
- Make available full report on LCTA method
- Facilitation of demonstration projects on emerging solutions

Summary – Networks Key Goals 2020+

Infrastructure to underpin economic development

Infrastructure to enable sustainability targets

Create value for Customers, Industry and ESB

Strategic Challenges & Issues

- Challenging and exciting times ahead for the Electrical Utility Industry
- Major focus on sustainability world wide
- Electricity will be the fuel of the future in replacing dependence on fossil fuels with Wind.
- Management of IT risks and costs
- Resources and direction to R&D activities
- New industry skill sets and expertise

**An Immense Challenge With Potentially
Huge Benefits for Ireland and Electricity Customers**