Good Practice Perspectives from the TSO for Grid Development

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What Grid25 involves

 More than 300 projects

 2,000 km of line upratings

 800 km of new build

 Significant number of new HV Stations (14 in development)

 €3.2bn expenditure
Key Challenges facing Grid build

1. Public acceptability for Grid development
2. Legal challenges / planning complexity
3. Scale and complexity of the Programme
Issues

- Visual Impact
- Perceived Health effects (EMF)
- Devaluation
- Need
- Alternatives explored
  - Overhead/Underground
  - HVDC
Developing Transmission Infrastructure – a brief history

EirGrid
Stages in Permitting Process for Strategic Electricity Infrastructure

1. **Stage 1** - Information Gathering
2. **Stage 2** - Evaluate Options
3. **Stage 3** - Confirm Design
4. **Stage 4** - Prepare Planning Application
5. **Stage 5** - Construction
Public document on Approach to Development of Electricity Transmission Lines
Education Outreach Programme
Tower Design
‘Public consultation’ vis a vis ‘public acceptability’

• Public acceptability for transmission infrastructure is a critical issue for Ireland
• Linkage between transmission and economic benefit must be stressed
• Major public acceptability issues are in relation to visual impact, devaluation, perceived human health issues.
• There are mitigation opportunities!
• Education and information giving are important in relation to informing people about projects.
• ‘Public consultation’ does not solve the ‘public acceptability’ issue
• Public consultation will give better projects which are critical to Ireland
The European Context ......

[Image: Map of Europe]
Drivers for Grid Development - Europe

- + Renewable’s and climate change
- + Market integration
- + Security of supply
- + Integration of isolated systems
- + Demand for electricity
Ten Year Network Development Plan (TYNDP)

- Published every two years by ENTSO-e as required under the European Third Package
  - next plan in 2012
- The TYNDP should provide for an adequate European grid that:
  - Provides a high standard of interoperability, reliability and security,
  - Supports a well-functioning European electricity market and,
  - Allows for the integration of renewable and low carbon generation.
## TYNDP – Projects for next 10 years

<table>
<thead>
<tr>
<th></th>
<th>DC</th>
<th>AC &gt; 330 kV</th>
<th>AC &lt; 330 kV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overhead Lines</td>
<td>1,800</td>
<td>26,900</td>
<td>1,200</td>
</tr>
<tr>
<td>Upgrade Existing</td>
<td></td>
<td>9,020</td>
<td></td>
</tr>
<tr>
<td>Cables – Inland</td>
<td>1,490</td>
<td>420</td>
<td></td>
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<tr>
<td>Cables - Subsea</td>
<td>9,330</td>
<td></td>
<td>880</td>
</tr>
</tbody>
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**TOTAL - > 50,000 km**

**Cost - > €97 billion**

(Ireland - >3,000 km at a cost of €3.2 billion)
EC Proposal to Fast Track the development of European Transmission Infrastructure

• For Projects of Common Interest (PCIs)
• One stop shop for permitting – fast track procedures
• Time limit for decisions by the permitting authority
  – 2 years to prepare applications, 1 year for decision
• Public involvement (Public Consultation)
• Transparency/Guidelines
Concluding

• Has the pendulum swung too far where minority interests can appear to outweigh national strategic requirements?
• Is the system robust enough to handle these conflicts?
• Will the citizens of Ireland trust the system?

Up to us to create the environment for trust
Thank You!