Eamon Ryan

- RENEWABLE ENERGY TRADE IN EUROPE
- WHERE TO FROM HERE?
Europe needs competitive electricity pricing for economic growth

<table>
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<td>5.9</td>
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Comparison of electricity prices, €ct/kWh

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<th>USA</th>
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<th>India</th>
<th>EU27</th>
<th>Turkey</th>
<th>Polen</th>
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1) Preliminary forecasts for 2013: 28.5 €ct

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Dr. Michael Suess
Projects already in the development pipeline represent a major step towards an integrated North Seas region.

- **Offshore wind projects**
  - 124 offshore wind projects located further than 50km from shore, with a total capacity of approximately 70 GW.
  - Projects in various stages of development, from concept/early planning to stage of construction.
  - Most projects have plans to get commissioned post 2015.

- **Dedicated interconnectors**
  - 14 potential dedicated interconnectors are envisaged to link the North Seas region with a total capacity of 12 GW.
  - 10 out of the 14 projects in the concept/planning stage and likely to get commissioned post 2020.

- **Combined grid solution - Offshore wind + interconnector**
  - 3 potential combined grid solutions identified with a capacity of 7.6 GW.
  - All the projects in the concept/early planning stage.
Optimally utilize potential for wind and solar

**Capacity additions 2012-2030 (GW):**
- Solar PV: 138 GW
- Wind onshore: 101 GW
- Wind offshore: 80 GW

**National targets**

**Balanced choice of location (*)**
- 50% of renewables in best locations
- Saved PG invest. ~32 bn € (until 2030)
- Additional grid invest. ~5 bn € (lifetime 40 years) on top of existing invest. programs (power consumption close to generation)
- 50% of grid invest incl. (40 year lifetime) → Net savings ~€30 billion

**Optimum location choice**
- 100% of renewables in best locations
- Saved PG invest. ~60 bn € (until 2030)
- Grid investment for energy transport to Germany (800 kV DC) ~30 bn € (lifetime 40 years) on top of exist. invest. programs
- 50% of grid invest incl. (40 year lifetime) → Net savings ~€45 billion

*) only 50% of non optimum located installations shifted to consider decentral self-supply applications
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