



# ***Electricity Interconnection Financing Issues***

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# Some issues

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Cost-benefit questions:

Is the net benefit from additional interconnection positive?

What is the distribution of costs and benefits?

Should only users of assets pay?

How should interconnectors be financed?

What would a smart EU policy look like?

# Who benefits?

- Not clear that consumers in both regions benefit (e.g. Nor-Ned, (Parail, 2009)).
  - APX price -2.6%; South Norway price +4.2%
  - Also reduces variance of APX price.
- Given foreign ownership not clear that national welfare improves in both regions (e.g. Czech Rep-Ger)
- Even where there are net benefits in both regions, there may be a payment problem. (e.g. Nor-Ned).

# How should they be financed?

- Who would be counterparties?
  - TSOs/TOs or independents?
- Type of funding?
  - In regulatory asset base (all customers contribute)
  - Merchant
  - EU subsidy (Trans European Networks)
- Risk and Rate of Return?
- Depends on above
  - Assumed real cost of capital 7.5% BritNed
  - Compares with perhaps 5.1% on regulated assets

# Specific Cases: 1

- Nor-Ned:
  - Ownership: Statnet-Tennet
  - Returns unregulated
  - Cable landing points: Feda (Norway) and Eemshaven (NL)
  - Investment €550; 580Km cable length
  - 700 MW capacity
  - Capacity available 2008
  - 100% open access by auction

# Specific Cases: 2

- Brit-Ned:
  - Ownership: National Grid-TenneT
  - Returns unregulated
  - Cable landing points: Maasvlakte (Netherlands) and Isle of Grain (UK)
  - Investment €600 million; 260km cable length
  - 1000MW capacity (nominal)
  - Capacity available late 2010
  - 100% open access by auction

# Specific Cases: 3

- East-West (IRL-GB):
  - Ownership: EirGrid
  - Returns unregulated
  - Cable landing points: Rush North Beach, Dublin (IRL); Barkby Beach, North Wales (GB)
  - Investment €600 million (110 from EU); 185km cable length
  - 500 MW
  - Capacity available 2012
  - 100% open access

# Smart EU Policy

- International interconnection is like generation capacity / new load requirement from individual country perspective.
- Merchant projects should have right to go ahead on this basis, subject only to use it or lose it rule.
  - Exemption from rTPA rules.
  - Currently some regulators / TSOs will not apply for this exemption (e.g. France-GB interconnector)
  - Unbundling of transmission clearly helps (09/72/EC)
  - 32 priority projects in 2003 (MVV, 2007)?
- Regulated projects should be subject to national, bi-lateral and EU wide cost-benefit tests.