

# Making sure renewables policy delivers

24 May 2004

Boaz Moselle, Managing Director, Corporate Strategy

# Ofgem's role

**Renewables  
Obligation**

**Network  
Issues**

**Transmission**

**Distribution**

# The scale of the challenge

- Total DG capacity today = approximately 8,500 MW
- By 2010:
  - 10% renewables would require approximately 8,000 MW more
- By 2020:
  - A further 10% renewables means re-doubling

# The scale of the investment: distribution

- Last year we asked the distribution companies for their views on DG connections and costs:
  - For the period April 2005-March 2010, mid-point estimates across GB:
    - Capacity connecting: 10,300 MW
    - Network extension costs: £520m £50/kW
    - Network reinforcement costs: £510m £50/kW
- These costs are distribution only (exclude 132kV costs in Scotland)
- For context, the distribution companies' total projections of reinforcement and replacement capital expenditure over this period exceeds £8,000m

# The scale of the investment: transmission

- High growth in wind generation in Scotland is expected to require significant upgrades to transmission.
- RETS study implied investment of:
  - £520m for 2 GW
  - £1,235m for 4 GW
  - £1,495m for 6 GW
- Offshore wind will require substantial transmission investment
  - DTI/Carbon Trust report suggests grid investment could be £3bn

# Ofgem action: distribution

- Distribution Price Control Review
  - incentives on distribution companies to connect and utilise DG efficiently; and
  - Registered Power Zones and Innovation Funding
  
- Structure of Distribution Charges
  - moving from deep to shallower connection charges
  - introducing generator use of system charges
  
- These must work together as a package to encourage efficient, co-ordinated solutions

# Ofgem action: transmission

- This involves:
  - very large incremental expenditure relative to current levels
  - significant expenditure not allowed for in the current price control
- Ofgem has hired independent experts to validate companies' estimates
- Ofgem work plan:
  - proposals on RETS expenditure – end of Summer
  - development of offshore transmission regime – ongoing
  - consideration of onshore reinforcement related to offshore wind – ongoing
  - transmission price control review – implementation 2007

# Technical challenges

- Clearly the future will not be “Business as Usual” for networks
- Analysis & early experience confirms substantial technical challenges
  - eg **voltage control** (DG having adverse effects on Supply Quality)
  - eg **fault levels** (switchgear capability to interrupt fault power surges)
  - eg **generator stability** (multiple generators not adversely interacting)
- Any incentives structure should promote **efficient** network investment for the development and operation of DG
- This includes **effective innovation to find the best value solutions**

# The challenges 2010-2020

- even more generation
- even more need for wires investment
- balancing issues may start to bite

This creates regulatory challenges for Ofgem to make sure the market can deliver

# The challenges 2010-2020

We need to make sure targets are delivered at least cost:

- market based incentives to deliver investment in the right place at the right time
- need to promote innovative solutions
- this includes full use of demand side, storage, interconnection

A large, central version of the ofgem logo is positioned in the middle of the slide. It features the word "ofgem" in white lowercase letters on a red rounded rectangular background. The background of the slide is a collage of blue-toned images related to energy, including a power plug, a person at a computer, and a gas meter.

Promoting choice and value for all  
gas and electricity customers