KEEPING THE LIGHTS ON

Ian Marchant
Warning
Challenges Ahead
POLITICAL UNCERTAINTY
POLITICAL PHILOSOPHY

THE KEY QUESTION IS

REGULATION V MARKET
THE ENERGY TRILEMMA

AFFORDABILITY

SECURITY OF SUPPLY    DECARBONISATION
ELECTRICITY MARKET REFORM
A PRICE FREEZE
CONSTITUTIONAL CHALLENGES

- Energy is not the most important subject
- Serious energy issues have to be addressed
- But they are being ignored. We deserve better
TIME FOR AN HONEST DEBATE

• The energy market needs to be either fully and independently regulated or properly driven by market forces
• Living in the twilight zone in between is really dangerous
• We need clarity around the energy trilemma
• The debate on constitutional change has to improve
• The current situation is a recipe for a real crisis
THE ECOLOGICAL CHALLENGES
THE INDUSTRY RESPONSE

A Super Smart Grid

1. Saving money: uses technology to help us optimize our homes and businesses so we can buy electricity at the cheapest rates.

2. Making money: a smart grid allows everyone to sell unused power back to the system. A smart grid meter spins both ways.
PHYSICAL CHALLENGES

OFGEM’S FOCUS IS MID-TERM (10 YEARS)

SOURCE: OFGEM CAPACITY REPORT OCTOBER 2012
BIG OR SMALL?
## COST AND CARBON

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<th>COST per annum</th>
<th>Carbon emissions</th>
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<tbody>
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THE ANSWER IS...

• Inspired by a football formation. 4 : 4 : 2
• 20% from a combination of energy efficiency and distributed generation
• 40% from a variety of renewables; wind, marine, solar, biomass.
• 40% from gas fired generation
• This would give a bill similar to the amount paid today but carbon emissions would only be 0.5 tonnes pa
ANOTHER PHYSICAL CHALLENGE IS AROUND SHALE

Shale gas has transformed the US energy landscape and stimulated the economy.
IS THIS ANOTHER US TREND WE SHOULD BE FOLLOWING

• Our reserves are more challenging and we don’t have an onshore drilling culture
• It will help on security of supply and affordability but will not change the overall picture
• It reinforces the role that gas can play in electricity generation but we need CCS on gas.
DIGITAL CHALLENGES

• Do we know what we don’t know
• What does the smart grid actually mean?
• How will the ‘Internet of Things’ affect the electricity industry?
• Can we cope with the customer of one?
AND FINALLY…..

We need to:

• Have an honest debate on the philosophy of energy.

• Deal with the ecological challenges.

• Start building a balanced mix of generation.

• Embrace digital change.

TO KEEP THE LIGHTS ON