

Long Term Electricity Network Scenarios (LENS) Workshop #1

**17 August 2007 University of Westminster,
New Cavendish St, London**

Note of Workshop

This note was taken by Ofgem to capture the key points made and to inform further debate. It concentrates on the issues raised during the question and answer session and breakout discussion groups.

Speakers: Robert Hull, Ofgem
Nick Hughes, Policy Studies Institute
Graham Ault, University of Strathclyde
Duncan Botting, ABB
Jonathan Ashcroft, E-On
Joanne Marsden, Foresight

Discussion facilitators: Nick Russ, Ofgem
Graham Ault, University of Strathclyde
Steven Argent, Ofgem

Introduction and Overview Robert Hull

1. Robert Hull (RH) opened the session and provided an introduction and overview to the project.

During the discussion the following points were raised:

- A question was raised on the purpose of the review in general. Was it just looking at electricity transmission & distribution networks (not gas)?

RH confirmed that this was correct, the scope of the project includes only electricity, however, lessons learned could be applied to gas also. Also, gas could not be ignored entirely as there were issues relating to gas that would have an effect on electricity (eg supply problems to generators as gas runs out). RH added that Ofgem would agree their position internally as to whether we express positive sentiments about gas for a future LENS type project.

- A question was raised on what sort of communication with stakeholders there would be throughout the project, for example would there be working groups?

RH explained that Strathclyde University were assisting with the project. The next step would involve them examining what data currently exists, Ofgem would then be keen to share this information and gain stakeholder input. RH stated that he was open to idea of working groups, although topic-specific workshops may be more suitable. The team expect there will be a number of issue-specific workshops as the project progresses.

RH also explained that the LENS team expected to publish all the available information and that they would focus on setting parameters for inputs & engagement with stakeholders (for example to seek input around publications).

Scenarios and Energy Modelling: Complementary Tools for Decision Making in Energy Futures, Nick Hughes

2. Nick Hughes (NH) from the Policy Studies Institute provided information on the work being undertaken in scenario modelling and introduced the MARKAL modelling tool.

During the discussion the following points were raised:

- Concern was raised over the use of 2-D modelling when there could be 5 or 6 parameters to analyse at any one time. It would be impossible to plot this on a 5 dimensional graph.

NH stated that they would look for key drivers and examine these in scenario modelling. However, they did not want to limit themselves to one conceptual model and would consider for example, network models where multi dimensional drivers could be examined.

The Development of LENS Scenarios, Graham Ault

3. Graham Ault (GA) provided information on the work of the University of Strathclyde's team. GA stressed that this was 'an' approach they were considering, not 'the' approach.

During the discussion the following points were raised:

- During the presentation GA mentioned GB power networks, clarification was asked on where GB stopped: the coastline or further?

GA replied that this had not yet been agreed on and these were crucial issues that they needed to resolve. RH said that scenarios would have to take account of developments, for example, interconnectors and offshore wind. Much of the information was currently known or available, but if technology changed significantly then this would be an input to the process which may alter scenarios. Models should take account of this.

- A question was raised on the role of network operators, in particular for distribution, as what they did would have an impact on scenarios.

RH said that was a difficulty in the scenario process, but the scenarios would be set up as a view of 'external world' against which stakeholders could make decisions to potentially alter the outcome. This interactive and dynamic nature of the scenarios is a valuable aspect for careful assessment. RH also explained that economic, social and technological developments would take place leading to many possible scenarios.

RH stated that there was a difference between scenarios and strategy. Companies may develop strategies in view of scenarios, but a scenario is not an actual strategy.

- A question was raised on whether a major difference in strategy going forward would be a wider policy issue.

RH stated that this could potentially be one of the outcomes, that it could lead to separate policy development. However, there would be significant questions. When would it change? Does it impact policy? This could only be done once the scenarios were actually developed fully, analysed and the important issues examined for any impact on policy.

NH explained that the recipients are big actors in the system. Stakeholders could act in a certain way which could drive things forward. We need to remember that there are also influences external to stakeholders and that this was up for debate on how they would be represented in scenarios. RH added that we need to clearly define the scenarios.

- A question was raised on the weighting given to the drivers in the scenarios, as there would be different impacts depending on the weightings given.

GA and NH explained that feedback loops would drive the models and also be taken into account in the scenarios as decision branch points when pathways to 2050 end points were analysed.

Horizon Scanning, Duncan Botting

4. Duncan Botting (DB) of ABB provided information on the Horizon Scanning work of the Electricity Networks Strategy Group (ENSG).

During the discussion, the following point was raised:

- Had the team developed a road-map and how does their methodology differ from current and past thinking?

DB explained that they were not re-inventing the wheel and that they had not commissioned a separate piece of work. There would be no road-map, but instead a rolling set of projects lasting between 18 and 24 months. These would inform the need for any course corrections. He aimed to promptly inform stakeholders of any new developments.

Developing Future Scenarios, Jonathan Ashcroft

5. Jonathon Ashcroft (JA) provided information on the work E-On were doing in the area of developing future scenarios. No questions were raised on this topic.

Foresight Sustainable Energy Management & the Built Environment Project, Joanne Marsden

6. Joanne Marsden (JM) introduced the work of Foresight and explained how their work would aid the LENS project. JM mentioned that all the material they would be using is available on their website. There were no questions raised.

Feedback Session

7. The delegates divided into three groups and discussed the following three topics.

Group 1: Identification of the key drivers and assumptions

Group 2: Development of scenarios

Group 3: Outputs of the LENS Project

After the group discussion the facilitators fed back the ideas from their groups. The group slides are available separately.

Identification of the Key Drivers and Assumptions, Group 1

8. Nick Russ (NR) fed back the ideas from Group 1. The group felt that the two main axes approach may be too simplistic and that the branching idea may be more useful. The group did come up with a top-ten but had between 15 and 20 actual drivers. These could be split into four groups as listed on the slide.

Development of Scenarios, Group 2

9. Graham Ault (GA) fed back the idea from Group 2. GA presented the information graphically with the x-axis representing how end customers would behave and the y-axis the geographic location of sources/services. They also identified 4 groups of major influence:

1. International context (what happens in oil & gas market, what happens in product market)
2. Policy (protect/influence/drive)
3. Regulatory (incentivise/penalise behaviour)
4. Social & technical

Output of the LENS Project, Group 3

10. Steve Argent (SA) fed back the ideas from Group 3. They posed the question, where does LENS stop, does it involve just scenarios? They expected other organisations would analyse the scenarios and respond based on their own research also. The group felt that it was essential to understand the audience (core and other stakeholders). They also stressed the value of pictorials. They felt that they were useful, people tended to remember them and use them to prompt debate. The group also considered how to communicate with the customer, are they seen as participatory as the LENS report is primarily focused at stakeholders.