

Subject: London's Energy Gap

Report to: Environment Committee

Report of: Executive Director of Secretariat

Date: 19 May 2011

This report will be considered in public

1. Summary

- 1.1 This report sets out the background to the issue of London's energy gap for a discussion with representatives from London Array and the Association of Electricity Producers.

2. Recommendation

- 2.1 **That the Committee notes this report as background to hearing from and putting questions to invited guests.**

3. Background

- 3.1 The vast majority of the UK's energy needs are supplied by fossil fuels: gas, coal and petroleum.¹ The UK's energy demand has remained relatively stable since the mid 1990s, after a steady rise from the early 1980s. Since 2004 the UK has, however, become a net importer of energy, creating a so-called "energy gap". This is largely because UK based petroleum and gas production has fallen by 50 per cent and 45 per cent respectively since their peak in 1999 and 2000. This makes the UK dependent upon oil and gas imports from often volatile regions of the world, and as global demand increases, facing increased energy prices.
- 3.2 The UK faces additional challenges in meeting its energy needs. Wide-scale closures are planned for the UK's ageing nuclear plants, and many of the country's biggest coal and gas plants are expected to close over the next decade for falling below the EU's environmental legislative standards. These anticipated closures could seriously jeopardise the UK's ability to meet its gas and electricity demand over the period to 2025.
- 3.3 The Mayor's draft Climate Change and Energy Strategy (CCMES) quotes the Office of Gas and Electricity Markets (OFGEM) estimates that up to £200 billion of investment is needed over the next ten years (more than twice the amount invested in the last ten years) to replace the UK's ageing infrastructure to meet the UK's energy needs and to move to a low carbon energy supply system with more nuclear and renewables capacity. The CCMES (p 29) states that "it is still unclear how such large-scale financing will be generated, and where it will come from". The CCMES also highlights further barriers to meeting the UK's energy needs: low existing renewable energy capacity, the stalling in the building of new nuclear power plants, and planning and regulatory delays.

¹ www.decc.gov.uk/en/content/cms/statistics/publications/flow/flow.aspx

London's role in closing the energy gap

- 3.4 The Government has recently introduced an Energy Bill which is designed to support the provision of energy efficiency measures to homes and businesses, and make improvements to the framework “to enable and secure, low carbon energy supplies and fair competition in the energy markets.”² Government policy reviews and builds on a range of energy supply policies and programmes introduced by the previous government which included a renewable energy strategy and a Feed-in-Tariff, designed to encourage the growth of renewable electricity capacity.
- 3.5 The Mayor's energy strategy projects that London's share of the electricity demand not met by domestic supply at around 576,000MWh in 2020. The Mayor is looking to tackle London's share of the energy gap from both the supply and demand side. As set out in the draft CCMES the Mayor has four overarching objectives for London's energy supply:
- Energy supply should be low carbon, in line with the supply contribution to London's CO₂ reduction targets;
 - Efficient use should be made of a range of fuel sources, so that they provide a guaranteed supply of heat and power to London;
 - Markets for power should be open, fair, sustainable and affordable and provide investment opportunities; and
 - Heat and power infrastructure is needed that is fit for purpose to deliver the above.
- 3.6 The CCMES sets out the main programmes to deliver these objectives including the creation of a London Heat Map to help identify decentralised energy opportunities for investors, the decentralised energy masterplanning programme, the coordination of exemplar decentralised energy projects (for example the London Thames Gateway Heat Network) and the London Green Fund to attract investment to strategic-wide energy projects.
- 3.7 On the demand side the CCMES sets out a number of energy efficiency programmes designed to reduce London's CO₂ emissions to help meet London's overall reduction targets. The Mayor's programmes include:
- RE:NEW - aiming to retrofit 1.2 million homes by 2015;
 - RE:FIT - aiming to support retrofitting public and commercial sector premises; and
 - RE:CONNECT - supporting the delivery of ten low carbon zones across London.

4. Issues for Consideration

- 4.1 At its 6 April meeting, the Committee discussed with the Mayor's then Environment Advisor Isabel Dedring progress and future resourcing of the Mayor's energy efficiency programmes. Evaluation of these programmes will take place through the summer months as more detailed budget and performance information becomes available.
- 4.2 The Committee's 19 May meeting is an opportunity for the Committee to hear from the London Array about progress with its project to build a 1GW wind farm in the Thames Estuary. There will also be an opportunity for Members to hear from the Association of Electricity Producers which

² See for example http://www.decc.gov.uk/en/content/cms/legislation/energy_bill/energy_bill.aspx

represents the many companies (large and small) that make the electricity that London and the UK depends upon.

- 4.3 Guests invited to attend the meeting to answer the Committee's questions include the following:
- Alastair Tolley, Head of Renewable Energy, Association of Electricity Producers; and
 - Richard Rigg, Project Director, London Array.
- 4.4 Following this meeting, Members will discuss any further work they want to do on this topic. It is important to note that the Health and Public Services Committee is set to launch its inquiry into Fuel Poverty which will build on this Committee's work on energy efficiency in the home. In Parliament, the Energy and Climate Change Select Committee has begun an inquiry on the UK's energy security – but this inquiry does not have an explicit regional dimension.
- 4.5 One option for the Committee would be to look to invite additional guests (eg academics, individual energy companies, the Mayor's new Director of Environment) to a future meeting to discuss what further steps the Mayor could take to reduce London's share of the energy gap.

5. Legal Implications

- 5.1 The Committee has the power to do what is recommended in the report.

6. Financial Implications

- 6.1 There are no financial implications arising from this report.

List of appendices to this report:

None

Local Government (Access to Information) Act 1985
List of Background Papers: The Mayor's draft Climate Change Mitigation and Energy Strategy
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