Electricity Capacity Assessment 2013: decision on methodology

Final decision

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Overview:

Ofgem is required by the Electricity Act 1989 (as amended by the Energy Act 2011) to provide the Secretary of State with an Electricity Capacity Assessment report by every September.

This document summarises our final decision on the methodology for the 2013 Electricity Capacity Assessment report.

This decision follows our consultation in November 2012 on the validity of the general approach for assessing the risks to electricity security of supply, and on proposals to amend specific aspects of the methodology.

Previously, we developed with National Grid a model to support the analysis in the 2012 Electricity Capacity Assessment. We consulted with industry on the methodology of the analysis and it was validated by academics and consultants.

Context

Ofgem's¹ principal objective is to protect the interests of existing and future consumers. The interests of consumers are their interests taken as a whole, including their interests in the reduction of greenhouse gases and in the security of the supply of electricity to them.

In this context, the Energy Act 2011 amended the Electricity Act 1989 to insert a new section which obliges Ofgem to provide the Secretary of State with a report assessing different electricity capacity margins and the risk to security of supply associated with each alternative. Ofgem's Electricity Capacity Assessment report has to be delivered to the Secretary of State by every September. The report is intended to inform decisions on the Electricity Market Reform and in particular the Capacity Market.

Fulfilling this obligation required a one-off exercise to develop a model which assesses the risks to electricity security of supply. This model was developed in 2012 and our intention is to update this model to fulfil the Authority's obligation for annual reporting.

The Electricity Act allows for the modelling to be delegated to a transmission licence holder and we have delegated the construction and updating of the model to National Grid Electricity Transmission plc.

Associated documents

Electricity Capacity Assessment 2013: consultation on methodology <u>http://www.ofgem.gov.uk/Markets/WhIMkts/CompandEff/Documents1/2013%20Elec</u> <u>tricity%20Cap%20Assessment%20Consultation%20Methodology.pdf</u>

2012 Electricity Capacity Assessment Report: <u>http://www.ofgem.gov.uk/Markets/WhIMkts/monitoring-energy-security/elec-</u> <u>capacity-assessment/Pages/index.aspx</u>

Department of Energy and Climate Change, *Electricity Market Reform White Paper 2011* "Planning our Electric Future: A White Paper for Secure, Affordable, and Low-Carbon Electricity".:

http://www.decc.gov.uk/assets/decc/11/policy-legislation/EMR/2176-emr-whitepaper.pdf

 $^{^1}$ In this document the Gas and Electricity Markets Authority is referred to as "the Authority" or as "Ofgem".

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Executive Summary

In November 2012 we published a consultation² to seek views on the general approach for assessing the risks to electricity security of supply for the 2013 Electricity Capacity Assessment report.

The consultation closed on 21 December 2012. We received nine responses, five from industry participants and four from academics and other institutions.

In our consultation we proposed maintaining the general approach used for the 2012 Electricity Capacity Assessment for this year's report. All respondents agreed with us that the methodology remains sound and fit for purpose for the period of analysis in the 2013 report (five winters from 2013/14 to 2017/18).

We also consulted on three specific aspects of the methodology:

• The approach to assess the contribution of interconnector flows on security of supply at periods of high demand and more specifically on the risk metrics: Loss of Load Expectation (LOLE), Expected Energy Unserved (EEU), and the frequency and duration of expected outages:

As per our consultation, we intend to use a qualitative approach to assess the contribution of interconnector flows to electricity security of supply in our Base Case and sensitivities. This approach has been supported by all but one respondent to the consultation.

To support the qualitative approach we will analyse the correlation of the capacity margin and its drivers (e.g. peak demand, outages) in GB and its interconnected markets. To inform our assumptions we will also investigate, in conjunction with National Grid, the various modelling that has been done in this area.

• The availability of data and information to analyse the potential impact of Demand Side Response (DSR) on electricity security of supply in the next five winters:

We will maintain the approach used for the 2012 Electricity Capacity Assessment report, where no explicit model of DSR was built owing to a lack of appropriate data availability. DSR is captured in National Grid's demand forecasts and assumed to continue at current levels for the period of analysis. No evidence has been presented to us to suggest that this assumption is not valid. We will complement this analysis by the use of sensitivities around the penetration of DSR.

²<u>http://www.ofgem.gov.uk/Markets/WhIMkts/CompandEff/Documents1/2013%20Electricity%2</u> 0Cap%20Assessment%20Consultation%20Methodology.pdf

• The approach to assessing wind power availability at times of high demand:

We will maintain the assumption of independence of wind and high demand for modelling purposes but we will investigate this relationship further using additional long time data series.

2. Introduction

The Electricity Act 1989³ obliges Ofgem to provide the Secretary of State with 2.1. an Electricity Capacity Assessment report by 1st September every year. The 2012 report was submitted to DECC in August 2012⁴ and published in October 2012. The report sets out our assessment of the risks to security of supply over the next five winters.

The 2012 Electricity Capacity Assessment model used for this analysis was 2.2. designed by Ofgem and National Grid and developed by National Grid⁵ in close collaboration with Ofgem⁶. The methodology was consulted upon with industry and academics. It was also validated by a panel of academic advisors⁷ and LCP Consulting.

2.3. Completing last year's report has made us aware of possible amendments to the methodology. We held a four week consultation in December 2012 to get views on the validity of the general approach for assessing the risks to electricity security of supply for the 2013 report. We also consulted on proposed amendments to specific aspects of the methodology.

2.4. The consultation closed on 21 December 2012. We received nine responses, five from industry participants and four from academics and other institutions. This document sets out our decision on the methodology we will implement for the 2013 Electricity Capacity Assessment. These decisions take into account and reflect the responses to our consultation.

2.5. We would like to take this opportunity to thank those who responded to the consultation as well as those academics who participated in workshops during the last months.

2.6. This document is structured as follows: Chapter 3 presents our decision on the general methodology, in Chapter 4 we discuss the proposed amendments to specific aspects to the methodology, and Chapter 5 presents some additional issues identified in the responses. All responses are published at the following address:

http://www.ofgem.gov.uk/Markets/WhIMkts/CompandEff/Pages/CompandEff.aspx

 $^{^3}$ Section 47ZA as inserted by the Energy Act 2011 can be found in Appendix 2. 4 The report was made public on the 5th October 2012.

⁵ National Grid developed the model in collaboration with Chris Dent (Durham University) and Stan Zachary (Heriot-Watt University).

⁶ In collaboration with Redpoint Energy.

⁷ Professors Derek Bunn (London Business School), Goran Strbac (Imperial College) and Michael Grubb (Cambridge University and Ofgem).

3. Ofgem's electricity capacity assessment report: general methodology

Chapter Summary

In our consultation document we proposed maintaining the general approach used for the 2012 Electricity Capacity Assessment for this year's report.

All respondents agreed that the methodology remains sound and fit for purpose for the period of analysis in the 2013 report.

Reflecting the respondent's view, we will be using the same general methodology. A detailed description of the methodology can be found in the 2012 report⁸ and a technical description is provided in Appendix 3 of the 2013 Electricity Capacity Assessment consultation on methodology⁹.

Question box

Question 1: Do you agree that the general methodology used for Ofgem's 2012 electricity capacity assessment is still valid to analyse GB's generation adequacy in the next five winters from 2013/14 to 2017/18? Please justify and provide alternative methodological suggestions and their comparative advantages if you disagree.

Question 2: In how many years do you think the effect of time-linked variables will be significant enough to require a fully chronological model to calculate generation adequacy? Please justify and provide data or references to back up your views.

Question 3: Do you agree that our proposed sensitivities around interconnector flows, generation capacity (de-rating factors, new builds, closures, and mothballing), and demand are sufficient to capture the uncertainties that have the most significant impact on the calculation of LOLE and EEU? Please justify the rationale behind any new sensitivity proposed.

Question 4: Are there any alternative measures of capacity adequacy other than the ones used in the 2012 report (LOLE, EEU, 1 in n probability of controlled disconnections, frequency and duration of expected outages and de-rated capacity

⁸ <u>http://www.ofgem.gov.uk/Markets/WhIMkts/monitoring-energy-security/elec-capacity-assessment/Pages/index.aspx</u>

⁹ <u>http://www.ofgem.gov.uk/Markets/WhIMkts/CompandEff/Documents1/2013%20Electricity%2</u> <u>0Cap%20Assessment%20Consultation%20Methodology.pdf</u>

margins) that we should report? Please provide a justification for suggested measures and explain what their comparative advantages are.

3.1. We believe the general methodology used last year remains fit for purpose and valid for the period of analysis of the 2013 Electricity Capacity Assessment report. Our view has been supported by the consultation responses. This means we will continue to use the Electricity Capacity Assessment model designed by Ofgem and National Grid and developed by National Grid for the 2012 Electricity Capacity Assessment report, with updated input assumptions to reflect current market developments.

3.2. All respondents agreed that the use of a time-collapsed – i.e. nonchronological model is justified for the time horizon and scope of this analysis (from winter 2013/14 to 2017/18). We will continue to review market developments and re-evaluate the requirement for a fully chronological model in future assessments.

3.3. We asked respondents whether the use of sensitivities for interconnector flows; generation capacity (i.e. de-rating factors, new builds, closures, and mothballing); and demand, remained relevant for the 2013 report. Most respondents agreed that these sensitivities are highly relevant to our assessment.

3.4. Three respondents suggested that we should analyse the interactions between the electricity and gas markets and ensure that Ofgem's electricity and gas security of supply analyses use consistent assumptions. Ofgem's Capacity Assessment team is working closely with other teams in charge of related analyses to ensure consistency in approaches and assumptions.

3.5. No respondent suggested additional sensitivities. Therefore, we are minded to use a similar set of sensitivities to those considered in the 2012 analysis though we are considering additional sensitivities around variables such as DSR penetration and wind availability.

3.6. One respondent made the suggestion of developing scenarios instead of using sensitivities to avoid misinterpretation of the results. As in 2012, we will include some scenarios such as DECC's reference case for EMR and National Grid's Gone Green and Slow Progression scenarios for information. However, we believe the use of sensitivities allows us to better capture the impact of separate input variables on the risks to security of supply. An approach using sensitivities will also facilitate comparison with the 2012 Electricity Capacity Assessment results.

3.7. All respondents were confident that the proposed measures of capacity adequacy (i.e. Loss of Load Expectation (LOLE), Expected Energy Unserved (EEU), 1 in n probability of controlled disconnections, frequency and duration of outages, and de-rated capacity margins) are robust and appropriate for our analysis and no alternatives were suggested. We will therefore be using the same risk measures in the 2013 report as in 2012.

4. Amendments to the methodology

Chapter Summary

Following the analysis of the consultation responses we have decided not to implement any changes to the methodology used for the 2012 Electricity Capacity Assessment report. Therefore, we will not develop quantitative models of future interconnector flows or the evolution of demand side response.

However, we will undertake more comprehensive analysis of the market to inform our assumptions and sensitivities around variables such as interconnector flows, demand side response and the relationship between wind power availability and high demand.

Question box

Question 5: Do you agree with using a qualitative model to assess the impact of interconnector flows on LOLE and EEU in our Base Case and sensitivities? Please justify and provide suggestions for alternative approaches and comparative advantages if you disagree.

Question 6: Do you know of any reliable sources of half hourly demand side response data that cover a time period starting before the last recession (ideally at least 10 years) that could be used by Ofgem to produce the 2013 Electricity Capacity Assessment report? Please provide references.

Question 7: Do you know of any existing analysis or figures on the potential for demand side response during the next five winters that could be used by Ofgem to produce the 2013 Electricity Capacity Assessment report? Please provide references and explain clearly how any suggested analysis can be used to calculate LOLE and EEU.

Question 8: Do you agree that the proposed options for longer historic time series of wind and winter demand in GB are relevant for investigating the relationship between these two variables? Please justify and provide suggestions for alternative options and their comparative advantages.

Question 9: Do you agree with the proposed methodology to estimate the distribution of demand net-of-wind? Please justify and provide suggestions for alternative options and their comparative advantages.

Interconnectors

4.1. In our consultation we considered two options to assess the contribution of interconnector flows to security of supply in the next five winters (from 2013/14 to 2017/18):

- 1. Developing a quantitative modelling approach to predict interconnector flows a quantitative model uses mathematical techniques (e.g. econometrics) and may calculate precise numerical results; however, the results are subject to how accurately the relationships among the variables in the system can be represented. The results will also depend heavily on the precision of the numerical parameters used in the model as inputs.
- 2. Developing a qualitative model to assess the likely direction and level of flows a qualitative model is a formal representation of the structure and interactions between the components of a system that helps to identify possible results (as opposed to precise results). These results are taken as indicators of possible outcomes instead of precise forecasts and should be complemented with plausible sensitivities.

4.2. We recommended the use of a qualitative modelling approach as we consider a quantitative model not fit for our purpose given the expected changes in the market arrangements with the implementation of market coupling and the uncertainties surrounding the assumptions required by such a model.

4.3. We received general support from the respondents for the development of a qualitative approach. Only one respondent suggested that a price differential model is more appropriate for assessing interconnector flows. However, the response did not address how to deal with the complexities surrounding the accurate determination of the inputs to such a model –e.g. the limited availability of reliable and consistent generation costs across Europe, which is our key concern.

4.4. One respondent suggested that Ofgem should not take into account interconnector flows in the Base Case as the analysis should focus on finding the level of capacity that is needed rather than how this capacity is procured. This respondent also recognises that it may be informative to understand the impact and materiality of different levels of import and recommends the use of sensitivity analysis to illustrate this. We believe that it is important to understand the contribution to security of supply of all forms of supply, including interconnectors.

4.5. All other respondents agreed with our preference for developing a qualitative model for assessing the likely direction and level of interconnector flows in the next five winters. Two respondents argued that the development of a quantitative model for the 2013 report is unrealistic.

4.6. We therefore confirm that we will use a qualitative approach to assess the likely direction and level of interconnector flows in our Base Case and sensitivities. To inform this approach we will undertake a comprehensive analysis of the comparative characteristics of the GB and its interconnected markets, and in particular of the probability of having concurrent periods where the margin of available supply over demand is the tightest during the winter period. As a complement to this analysis we will also investigate, in collaboration with National Grid, some of the models that have been used by different organisations to analyse this issue.



Demand Side Response (DSR)

4.7. In our consultation we stated that building an explicit model to assess the potential impact of Demand Side Response (DSR) on electricity security of supply over the next five winters would require half hourly DSR data for a period long-enough to capture sufficient pre-recession time-series data. We sought views on possible sources for this data.

4.8. We received no suggestions for appropriate data sources that could be used to build an explicit model of DSR. Therefore, we have decided to follow the same approach used in the 2012 report where DSR is captured in National Grid's demand forecast and assumed to continue at current levels for the period of analysis.

4.9. We also sought recommendations for any information that could be used to assess how the level of DSR might change over the period of our analysis. Most respondents suggested that there is no reliable analysis currently available.

4.10. However, we recognise the importance of following developments in DSR and the impact it will have on security of supply in the future. We will therefore continue with the investigation of the potential for DSR development in the next five winters to try and get a better view. Understanding any such development will enable us to decide on whether or not we should include sensitivities around DSR in the 2013 Electricity Capacity Assessment. Three respondents recommended us to be cautious in the assumptions around DSR developments in the next five winters.

Wind – demand correlation

4.11. In the 2012 Electricity Capacity Assessment report, wind generation was modelled using a distribution of available wind capacity appropriate to times when demand is very high. Our estimate for this distribution was the historical distribution conditional on being at times of generally high demand, i.e. conditional on being in the winter season. This corresponds to an assumption of independence of available wind power and demand conditional on being in the winter season.

4.12. It is important to note that we do not assume that in reality there is no relevant statistical relationship between demand and available wind power. Rather, with our assumption of independence between these variables, we recognise that we do not have the required data to support a more complex model structure including explicit wind-demand dependence.

4.13. In our consultation we have proposed retaining this modelling approach and independence assumption in the model, and continue to use sensitivities to account for the possible effects of statistical association between these two variables. We have also consulted on the relevance of two long time data series for analysing further this relationship.

4.14. All respondents agreed that it is important to study further what can be learnt regarding statistical associations between demand and available wind power.

Therefore we confirm that we will perform further analysis of the time series of demand and meteorological data which are available to us, in order to better inform the wind distribution sensitivities considered.

4.15. As discussed in the consultation, the two longer term data series immediately available to us are: i) transmission metered demand, and ii) meteorological variables used for demand forecasting, both back to 1986. Pending detailed analysis, we anticipate that the meteorological data will be more suitable for our purposes as the data are more consistent and permit analysis of the relationship between wind resource and temperature (and hence indirectly demand) over this long period.

4.16. The metered demand itself is consistent and GB demand is dominated by England and Wales demand. However, there have been substantial changes in underlying demand patterns since the 1980s, and there are also concerns over whether the calculation of ACS peak (required for comparing demand data between years) has been performed sufficiently consistently for our purposes in the 1980s and 1990s.

4.17. The results of this analysis will inform both the sensitivities in the wind distribution used. Appropriate consideration will need to be taken of the small quantities of directly relevant data, and the assumption of stationary climate which is required in order to use these data for capacity assessment purposes.

5. Additional issues identified in responses

Chapter Summary

Respondents have included additional comments and recommendations that are not particularly related to the specific questions asked in the consultation. We appreciate all comments and will analyse all suggestions to try and improve our analysis. We comment on some of these additional issues in this chapter.

Acceptable level of risk:

5.1. One respondent is concerned by the fact that we are not proposing to include an analysis or recommendation of what the acceptable level of risk to security of supply should be. We consider that this is out of the scope of this analysis.

More explanations of the differences between Ofgem's Electricity Capacity Assessment and similar reports:

5.2. There are several publications in the market analysing future margins and security of electricity supply, including National Grid's Future Energy Scenarios and DECC's EMR publications. We will investigate and further explain the differences in methodology and assumptions that explain different results.

Data sets for the future:

5.3. It has been suggested that Ofgem and National Grid should focus on ensuring that the UK builds good data sets, for example on DSR, over the coming years so that better models can be developed. We agree that this issue should be addressed and will work with National Grid and DECC on this.

Assumptions of winter plant availability in the 2012 Electricity Capacity Assessment report seem too low:

5.4. We will investigate the availability of different generation types over different time periods, particularly at the times of system stress – i.e. periods where the margin of supply over demand is tight, to ascertain the appropriate values to use for the mean availabilities. This analysis will utilise historical availability data and information received from generators on planned and forced outages.

In the context of supporting the operation of a Capacity Market, the Electricity Capacity Assessment model should focus on assessing the level of capacity needed rather than how this capacity is to be provided e.g. through domestic plant, DSR, or via remote generation using interconnectors, and hence the contributions of DSR and interconnectors should not be considered: 5.5. The aim of Ofgem's 2013 Electricity Capacity Assessment is to estimate generation adequacy in GB during the next 6 winters under the assumption that no Capacity Market is in operation. This information will be used by DECC to inform decisions on the Electricity Market Reform and in particular the Capacity Market.

Ofgem should clearly define the role that the Electricity Capacity Assessment report will play in informing and/or facilitating the operation of the Capacity Market:

5.6. Ofgem is preparing the 2013 Electricity Capacity Assessment report to fulfil the obligation in Section 47ZA of the Electricity Act as inserted by the Energy Act 2011.

5.7. The Electricity Capacity Assessment is likely to inform the decision on the need for and potentially timing of the first auction and the date of delivery. The report and its underlying analysis will also help inform the operation of the Capacity Market – i.e. the Delivery Plan.

Appendices

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Appendix 1 - Glossary

С

Capacity margin

The capacity margin is defined as the excess of installed generation over demand. It is sometimes referred to as reserve margin.

Capacity mechanism

Policy instrument designed to help ensure security of supply by providing a more secure capacity margin than that which would be determined by the market without intervention.

Combined Heat and Power (CHP)

The simultaneous generation of usable heat and power (usually electricity) in a single process, thereby leading to reductions in the amount of wasted heat.

Constraints (also known as congestion)

A constraint occurs when the capacity of transmission assets is exceeded so that not all of the required generation can be transmitted to other parts of the network, or an area of demand cannot be supplied with all of the required generation.

Consumer

In considering consumers in the regulatory framework we consider users of network services (for example generators, shippers) as well as domestic and business end consumers, and their representatives.

D

DECC

Department of Energy and Climate Change.

Demand profile

The rate at which energy is required, expressed in kilowatts (kW) or megawatts (MW). It is usually related to a time period, typically half an hour, e.g. 1 kWh used over half an hour is a demand rate of 2 kW. A graph of demand rate over a typical day, for example, is the demand profile.

Demand Side Response (DSR)

An active, short term reduction in electricity consumption either through shifting it to another period, using another type of generation, or simply not using electricity at that time.

De-rated capacity margin

The de-rated capacity margin is defined as the excess of available generation capacity over demand. Available generation capacity is the part of the installed capacity that can in principle be accessible in reasonable operational timelines, i.e. it is not decommissioned or offline due to maintenance or forced outage.

Distribution Network Operators (DNO)

DNOs came into existence on 1 October 2001 when the ex-Public Electricity Suppliers were separated into supply and distribution businesses. There are 14 DNOs covering discrete geographical regions of Britain. They take electricity off the high voltage transmission system and distribute this over low voltage networks to industrial complexes, offices and homes. DNOs must hold a licence and comply with all distribution licence conditions for networks which they own and operate within their own distribution services area. DNOs are obliged to provide electricity meters at the request of a supplier.

Е

Embedded generation

Any generation which is connected directly to the local distribution network, as opposed to the transmission network, as well as combined heat and power schemes of any scale. The electricity generated by such schemes is typically used in the local system rather than being transported across the UK.

EMR

Electricity Market Reform.

Energy efficiency

A change in the use of energy to reduce waste and lower energy use. For example, insulation in buildings, reducing demand from heat, or increasing the efficiency of appliances so they use less energy.

Expected energy unserved

This is a statistical measure of the expected volume of demand that cannot be met over a year because generation is lower than required.

F

Forced outages

The shutdown of a generating unit, transmission line, or other facility for emergency reasons or a condition in which the generating equipment is unavailable for load due to unanticipated breakdown.

Ι

Interconnector

Electricity interconnectors are electric lines or other electrical plants based within the jurisdiction of Great Britain which convey electricity (whether in both directions or in only one) between Great Britain and another country or territory.

Intermittent generation

Electricity generation technology that produces electricity at irregular and, to an extent, unpredictable intervals, eg wind turbines.

L

Large Combustion Plant Directive (LCPD)

An EU Directive placing restrictions on the levels of sulphur dioxide, nitrogen oxides and dust particulates which can be produced by combustion plants with a thermal output greater than 50MW. The implementation of the LCPD in the UK requires coal and oil plant to fit flue gas de-sulphurisation (FGD) equipment or have their total running hours restricted to 20,000 between 1 January 2008 and 31 December 2015 before closing prior to the end of that period.

Loss of Load Expectation (LOLE)

LOLE is the probability of the capacity margin being negative or of demand being higher than generation capacity in the year.

Μ

Maximum Export Limit (MEL)

MEL is the maximum power export level of a particular BM Unit at a particular time.

Mothballed

A term often used for long term storage of Generating Units. Such plant is sometimes also referred to as 'decommissioned'.

Ν

National Electricity Transmission System (NETS) System Operator (SO)



The entity responsible for operating the GB electricity transmission system and for entering into contracts with those who want to connect to and/or use the electricity transmission system. National Grid is the GB electricity transmission system operator.

National Grid Electricity Transmission plc (NGET)

NGET is the Transmission System Operator for Great Britain. As part of this role it is responsible for procuring balancing services to balance demand and supply and to ensure the security and quality of electricity supply across the Great Britain Transmission System.

Ρ

Peak demand, peak load

These two terms are used interchangeably to denote the maximum power requirement of a system at a given time, or the amount of power required to supply customers at times when need is greatest. They can refer either to the load at a given moment (eg a specific time of day) or to averaged load over a given period of time (eg a specific day or hour of the day).

Pumped storage

Process, also known as hydroelectric storage, for converting large quantities of electrical energy to potential energy by pumping water to a higher elevation, where it can be stored indefinitely and then released to pass through hydraulic turbines and generate electrical energy.

S

Scheduled outage

The shutdown of a generating unit, transmission line, or other facility for inspection or maintenance, in accordance with an advance schedule.

Sensitivity

This is a test whereby a single factor is changed (eg interconnector flows) keeping all other factors fixed to their base case value to see the effect the single factor produces on the model output (eg LOLE)

Т

Transmission System

The system of high voltage electric lines providing for the bulk transfer of electricity across GB.

The Authority/Ofgem



Ofgem is the Office of Gas and Electricity Markets, which supports the Gas and Electricity Markets Authority ("the Authority"), the regulator of the gas and electricity industries in Great Britain.

U

UKERC

UK Energy Research Centre.

W

WOR

Winter Outlook Report.



Appendix 2 - Feedback Questionnaire

1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:

- 1. Do you have any comments about the overall process, which was adopted for this consultation?
- 2. Do you have any comments about the overall tone and content of the report?
- 3. Was the report easy to read and understand, could it have been better written?
- 4. To what extent did the report's conclusions provide a balanced view?
- **5.** To what extent did the report make reasoned recommendations for improvement?
- 6. Please add any further comments?
- 1.2. Please send your comments to:

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