



Ofgem Consumer First Panel – 2009/2010

Findings from second workshops - Project
Discovery

(January 2010)

2010



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Executive Summary

Background

The Ofgem 'Consumer First' Panel is a diverse group of 100 domestic energy consumers. It was formed to be the 'voice of the consumer' and help Ofgem ensure policy developments are consumer focused. It meets 3 or 4 times per year to discuss topical issues. The Panel is in its second year and draws its members from 5 locations across Great Britain – Aberdeen, Aberystwyth, Bradford, Bristol and London. The Panellists are recruited to be broadly representative of domestic energy consumers.

This report details findings from the second workshop of the 2009/2010 Panel which focused on the issue of Security of Supply¹. Panellists discussed their spontaneous concerns around the future security of Great Britain's energy supplies (overall, not differentiating between gas and electricity), and what issues they felt would particularly affect it. They considered their preferences for future electricity generation technologies and their concerns around future sources of gas. They discussed the role for consumers in securing future electricity supplies, and who should be in overall charge of ensuring secure energy supplies. Finally, they contemplated potential trade-offs around Security of Supply i.e. Security of Supply, costs and likelihood of meeting environmental targets.

The workshop took place in January 2010, a time at which Security of Supply was highly pertinent. The fieldwork period coincided with one of the coldest periods Great Britain has seen in recent years. This was accompanied by media stories relating to limited reserves of gas, and disruption to gas imports.

Desires and fears relating to future energy supplies

Spontaneous and prompted concerns around Security of Supply

Security of supply was not a key spontaneous issue relating to energy. Panellists tended to be more concerned about the rising cost of energy and their efforts to conserve energy in order to save money. However, when prompted, Panellists did see potentially serious issues which might affect Security of Supply in the longer term. Key amongst these were:

- **Diminishing Great Britain Energy Supplies** – there was relatively high awareness that North Sea gas is running out, and some limited awareness of the nuclear power stations being decommissioned. Having domestic sources of energy was seen as key to Security of Supply to avoid becoming reliant on other countries;
- **Reliance on other countries** – Panellists perceived that energy resources would be scarcer and there would be greater demand internationally for them in the future. They therefore felt that having limited domestic resources, and being reliant on imported energy resources left Great Britain vulnerable.

Panellists found it hard to understand how other potential issues, namely **climate change**, the **credit crunch**, and challenges around **renewables**, would affect Security of Supply.

Future electricity generation

Initially Panellists favoured what they perceived as green or ‘clean’ technologies i.e. those that did not burn fuel or ‘pollute’, therefore wave, wind (onshore and offshore), tidal and hydro were most preferred. Nuclear was perceived to fit into this group by those who considered to be safe, however some felt there were concerns around safety and waste and so did not favour it.

Potential costs had a significant impact on these preferences. More expensive green technologies such as wave, tidal and hydro were favoured less, with Panellists either wanting them to have a limited role, or not being used at all. Wind was still favoured and nuclear and biomass came to be seen as having a potentially significant role in future electricity production.

Throughout these discussions gas and coal remained among the least favoured technologies, being seen as ‘dirty’ i.e. polluting, and unfeasible in the long term due raw materials eventually run out, and becoming more expensive in the meantime.

Future gas supplies

Panellists had significant concerns around potential future sources of gas:

- **Russia** was perceived to have a tendency to use its natural resources to leverage its political goals, as was seen to have happened during the 2009 Russia/Ukraine gas dispute

¹ There is a separate report that details findings related to the 65 working day rule, which was also discussed during the second workshop.

- The **Middle East** was seen as a potentially unstable region which may be prone to conflict, making it an insecure source of gas. The region was also seen as particularly concerned with maximising profits from natural resources, and raising the possibility that we might be increasingly ‘held to ransom’.

Responsibilities

Demand Side Response (DSR)

Consumers found it hard to understand why using electricity at different times of day would help reduce demand for electricity overall as they would still be using the same actual amount of electricity. Panellists generally saw the behaviour changes consumers may be asked to take on as being somewhat unfeasible:

- Using appliances and heating water at night were seen as most reasonable, although some felt they could not use appliances at night due to noise.
- There was scepticism around using technology which automatically switches appliances off at times of high demand as they were concerned they would have no control.
- Cooking food at different times was not considered possible as they regarded time they eat as fixed.
- Having an interruptible supply was not appealing for most and there was some concern this would appeal to vulnerable consumers who might suffer negative effects from interruptions.

Overall responsibilities

The Panel considered that government was responsible for Security of Supply having the power and authority to make this type of strategic decision. However, there was some concern over the efficiency of government, and the potential for it to make decisions for political reasons rather than in the best interests of the country.

Suppliers were seen to be driven by profit and as taking short term views unsuited to making decisions of this nature. They were however seen to have significant expertise which would be valuable in addressing issues relating to future Security of Supply.

Trade-offs around Security of Supply

Panellists were presented with three hypothetical options which contained different risks around security of supply, cost and the likelihood of meeting environmental targets. Security of Supply was seen as more important than the cost of energy, although this was still an important concern, and much more important than meeting green targets which was seen very much as a ‘nice to have’ compared to the other two. Panellists fell into 3 groups

- A minority saw cost as the most important issue, accepting lower costs would mean lower security. Likely lower costs were also seen to bring about the possibility of more innovation, although this was a fringe benefit with cost being the greatest motivator.
- Some wanted the lowest possible chance of interruptions to supply, accepting costs were likely to be highest overall, but also liked that they were more likely to be stable. This was seen as a benefit as it made budgeting easier. Those who favoured nuclear also tended to favour the most secure of the three options as it included as one of its characteristics a greater likelihood of use of it.
- Others opted for **slightly** less Security of Supply as they preferred a slightly higher level of innovation and a better mix of different types of energy.

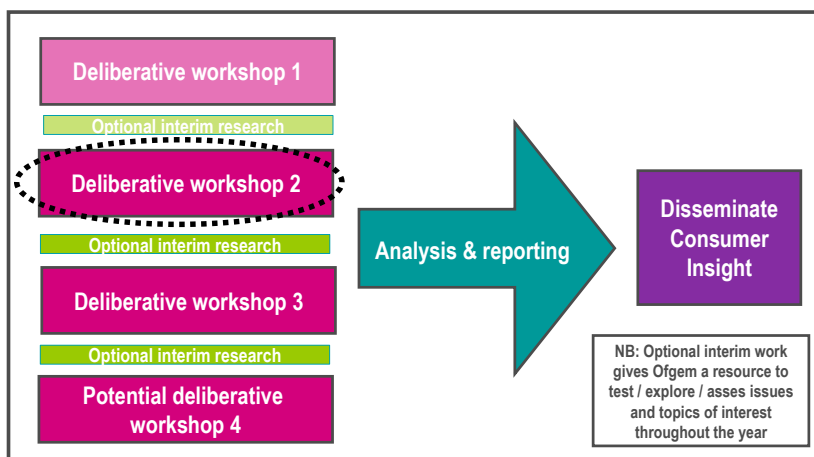
Background

Background and objectives of the Panel

The Office of Gas and Electricity Markets (Ofgem) is the economic regulator for the electricity and downstream natural gas markets in Great Britain. It has the key objective of protecting the interests of all current and future consumers. Ofgem’s ‘Consumer First’ initiative is a programme that includes a range of primary market and social research to help the organisation ensure that policy development is consumer focused and that consultations are aligned with the abilities of consumers to respond effectively. As part of this programme, Ofgem has set up the ‘Consumer First Panel’, a diverse group of 100 domestic energy consumers recruited to take part in a series of research events and surveys, and to be ‘the voice of the consumer’ and a unique resource for Ofgem.

The Panel was designed to enable members to discuss issues from a consumer perspective with the advantage of a rounded view of how the industry works and knowledge of the business models involved. Participants will be called upon regularly to feed back their views and opinions on key energy topics and regulatory issues.

The overall programme is structured as follows:



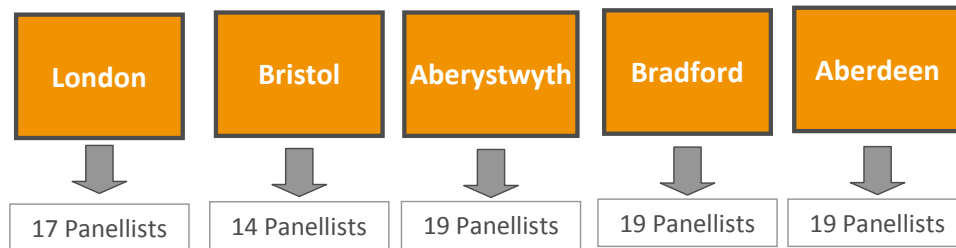
Research events can be used to explore topics in depth, and intermediate surveys are able to quickly and cost effectively get feedback on specific issues on, for example, communications material.

Sample

In order to ensure a representative sample of consumers in Great Britain, and also to avoid many of the frequently researched population centres, Panellists are drawn from five locations to ensure

everyday consumer views are captured. In the second year of the Consumer First Panel, Panellists were replaced with different customers in new locations to give a fresh perspective and reflect rural and urban consumers.

This report details the finds from the second meeting of the second year of the Ofgem Consumer First Panel which consisted of a representative sample of 88 energy consumers across 5 locations in Great Britain:



Participants were recruited purposively – i.e. using a door-to-door, on-street and ‘snowballing’ (i.e. developing contacts from those already recruited) approaches. They were all given information about the purpose of the Panel and of the commitment required at this stage i.e. they would be taking part in 3-4 workshops over a year, with the potential of being asked to take part in other research in between. The groups were recruited using a specification based on National Statistic census data for Great Britain (2001) including the following criteria:

- Gender
- Age
- Ethnicity
- SEG
- Tenure
- Fuel poverty
- Rural vs. Urban
- Supplier
- Electricity only vs. Gas and electricity
- Payment type
- Employment status
- Family status

While the Panel was represented to be as nationally representative as possible, in each location certain demographics were raised or lowered according to the surrounding region. Demographics were up weighted to ensure certain groups were represented included BME groups, age 25 and under and those from rural vs. urban households.

The Panel was over recruited to cover a potential drop out rate of 10%, which is common in research. Reasons for further shortfall in this round were unavoidable due to adverse weather conditions at the time. Heavy snow led to a low attendance at the Bristol and London events. A ‘top-up’ group was therefore held in London on the 25th January, this consisted of members of the Panel who were unable to attend the previous workshop.

The overall sample was as follows (showing both those recruited and those that took part in the second event):

Sample	Target	Achieved
Gender		
Male	55	45
Female	55	43
<i>Total</i>	<i>110</i>	<i>88</i>
Age		
16 – 24	20	10
25 - 44	41	34
45 – 64	32	30
65 +	17	14
<i>Total</i>	<i>110</i>	<i>88</i>
Ethnicity		
White British	95	67
White Other	1	1
Black or Minority Black	24	20
<i>Total</i>	<i>110</i>	<i>88</i>
SEG		
AB	24	15
C1	35	35
C2	24	19
DE	27	19
<i>Total</i>	<i>110</i>	<i>88</i>
Tenure		
Owner occupied	63	53
Social rented	28	16
Private rented	19	19
<i>Total</i>	<i>110</i>	<i>88</i>
Rural vs. urban		

Sample	Target	Achieved
Rural	26	19
Urban	84	69
<i>Total</i>	<i>110</i>	<i>88</i>
Fuel Poverty		
Yes	20	18
No	90	70
<i>Total</i>	<i>110</i>	<i>88</i>

When first recruited all participants received a letter welcoming them to the Panel, as well as a 'participant contract', a non-legally enforceable contract that outlines:

- What the aims of the Panel are
- Who their contacts should be if they have any queries between events
- What they can expect from the Panel
- What the Panel expects of them
- How they would be incentivised for their time

Methodology and topics for discussion

As with previous Panel meetings the second event was set up as a three hour deliberative evening workshop in each of the locations. The events included a video on project discovery, plenary work, group discussions on tables and collaborative group exercises. The full agenda and all content used at the workshops can be found in the appendices.

The discussions focussed on the following²:

Project Discovery

- Spontaneous and prompted views on issues affecting Security of Supply over the next 10 – 15 years
- Specific desires for future electricity generation technologies
- Issues surrounding potential future sources of gas supplies
- Responsibilities
 - Demand Side Response (DSR)
 - Overall responsibility
- Trade-offs around Security of Supply

This agenda was devised to discuss the specific issues affecting future security of energy supplies separately, and build knowledge, to enable Panellists to come to an informed view on the trade-offs related to security of energy supplies.

Panellists were also asked a short questionnaire at the beginning and end of the workshop which was used to assess how views on issues relating to Security of Supply changed over the course of the workshop.

² 65 day rule was also discussed during this workshop. Content of this session and findings can be found in a separate report

Context to workshops

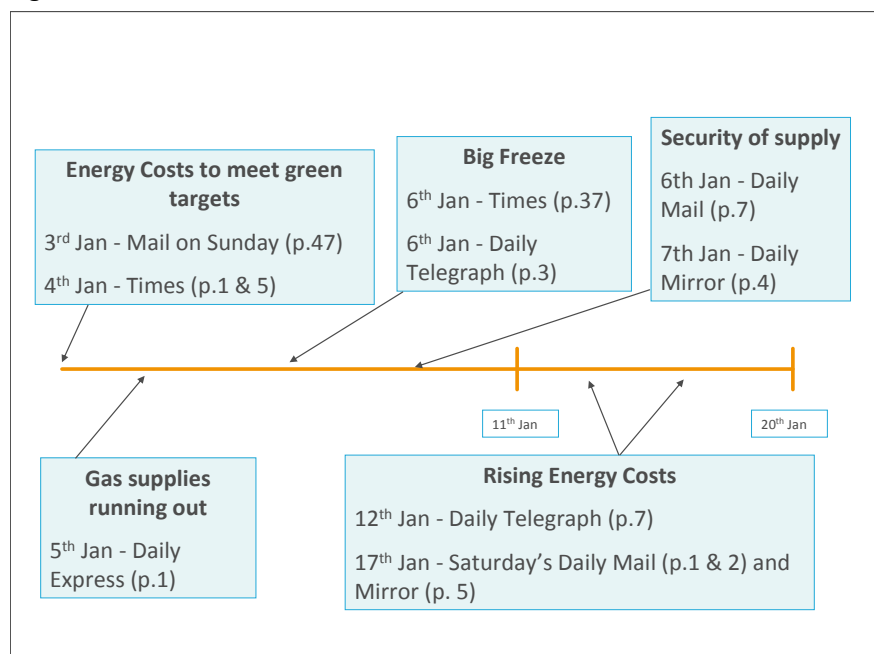
This report details the findings from the second series of research events in the second year of the Consumer First Panel across all locations, which took place between 11th and 20th January 2010. This section looks at the subject of media leading up to and during the workshops, in order to give the context and identify any potential influential stories. The timeline of the main media context is shown in Figure 1.

Relevant media coverage at this time was evident in some discussions with the Panel, when discussing Security of Supply. In particular the 'Big Freeze' affected most Panellists the week before the events, and also affected Panellists attending groups in Bristol and London. With many realising their dependence on energy to heat their homes and to cook during this time, and several aware of media around energy running out in certain locations badly affected by the snow and of the "8 days of supplies" which was reported as being the amount of time the energy stored in Great Britain would last.

"I have been really hit by the snow in the last few weeks and it has made me realise how dependent I am on energy on a day to day basis."

"I can't believe we only have 8 days of supplies stored in this country, what happens if our pipelines from other countries are cut off?"

Figure 1 – Timeline of contextual events



Relevant articles which are likely to have been visible to Panellists include:

Opinion Leader

- **Energy Costs to meet green targets** – there were several articles at the beginning of the year which identified potential costs to consumers in order to meet green targets:
 - Mail on Sunday (3rd Jan) reported “household gas and electricity bills are expected to rocket to nearly £5,000 a year by the end of the decade to meet Government imposed green targets”.
 - Times (4th Jan) which reported “gas and electricity prices could double by 2020 to meet the £233.5 billion cost of investing in nuclear energy and renewables”.

“My bills are always going up and I have seen quite recently that this is going to happen again this year, to be honest I am not surprised.”

- **Gas supplies running out** – the potential risk of gas supplies running out and the potential effect this could have on consumers:
 - Daily Express (5th Jan p.1) reported “gas supplies are running out”.

“I keep hearing there isn’t much gas left in this country and it’s going to run out soon, we need to think about what we are going to do if it does.”

- **Security of Supply and reliance on other countries** – the ‘Big Freeze’ also raised issues regarding gas storage in Great Britain and the reliance on other countries for gas supplies:
 - Daily Mail (6th January p.7) reported the Tories said Britain only had seven days of gas storage.
 - Daily Mirror (7th January p.4) reported high gas usage will leave Britain short of the fuel, claiming the country has “eight days” worth of stored gas.
 - Times (6th January p.37) reported cold weather had highlighted the country’s reliance of imported gas.
 - Daily Telegraph (6th January p.3) reported on an alert issued after demand jumped 30 per cent above normal seasonal levels, as well as disruptions to a Norwegian supply.

“I have heard that we only have 8 days left of supplies in this country, I can’t believe we didn’t know that before.”

“Why haven’t we got more supplies in this country? I would have thought by now we would have developed a way to do that.”

- **Rising Energy Costs** - following the ‘Big Freeze’ there was some media around the potential cost to consumers of the cold weather and the high usage of energy during that time:

- Daily Telegraph (12th January p.7) reported that every household in the country faces an extra £70 on their gas bills due to the cold weather.
- Saturday's Daily Mail (17th January p.1 & 2).
- Mirror (17th January p. 5) reported that "Heating bills are set to rocket as the top six suppliers have refused to pass on a sharp fall in wholesale prices to customers and are set to make £846 million profit".

"People have been using lots of gas to heat their homes when it has been so cold so of course their bills are going to be bigger, I don't understand what other reason there would be for bills going up though."

"Apparently bills are going to go up even more after all this cold weather and it must be just so suppliers can make more money from us."

Initial concerns about security of energy supplies

Emotional connection to energy

Themes

Prior to the workshops Panellists were given a task to find something which represents the way they feel about energy and to bring this along to the workshop. They were asked what these objects represented and how they summed up what energy means to them. The items Panellists brought displayed a range of emotional connections with energy relating to:

- Rising cost and the increasing impact this has on their finances
- The central role energy plays in their lives and their dependence on it
- Perceptions of diminishing of energy resources and the need to conserve them

Common objects and their connections to energy

Energy bills were commonly brought to the workshop. Panellists felt these represented the rising cost of energy because they were perceived to be ‘always going up’. Panellists commented on the increasing financial impact of energy costs over the last few years. Some Panellists also commented that they found energy bills confusing. They found it hard to understand how energy costs were calculated, and whether or not these costs represented good value.

“I would have brought my bill and some Prozac because they are always going up and it causes me a lot of stress!”

“All I think about when I think of energy is the never ending cost and the effect on my purse.”

Some Panellists brought pieces of **consumer electronics e.g. MP3 players, mobile telephones or hot water bottles**. These objects were seen to represent the central role that energy plays in modern life. This was both in terms of providing us with all the modern amenities we use, but also in a more fundamental sense of heating our homes and providing ‘warmth and comfort’. The overall feeling was that people are dependent on energy for almost all of the things they take for granted.

Energy saving light bulbs and light switches were also frequently brought items. Light switches were also used to represent the central role energy has in our life and that it is there immediately when you need it. Panellists felt these also represented their personal efforts to reduce energy usage. This

was again linked to cost, with the main benefit of using energy efficient equipment being the financial savings that could be made.

“I brought an energy saving light bulb because that is one of the things I am doing to try and use less energy and make my bills less.”

“I now go round my house all the time switching off the lights behind everyone else, what is the point of wasting money on lights in rooms which aren’t being used?”

There was also a link to energy conservation. This was felt to be important due to energy being perceived by some as they felt it was generally ‘running out’ (although in a long term sense rather than imminently). Energy efficiency was seen as a developing trend required to meet the challenge of depleting resources. This sense of energy being finite and depleting was echoed in the **batteries** that other Panellists brought along. They also represented storage, with some Panellists feeling that Great Britain should be aiming to maintain and store its own energy reserves while they are still available.

“Batteries show how you can store energy. We need to think about better ways to store energy.”

Top-of-mind concerns around Security of Supply

Spontaneous concerns around Security of Supply

Panellists were informed at the start of the workshop that the main topic of discussion was around the future security of Great Britain’s energy supplies over the next 10 to 15 years. They were initially asked about their concerns around ‘keeping the lights on’ and ‘keeping warm’ in the long term. Overall Panellists did perceive vulnerabilities in future energy supplies, but tended to see issues affecting supply as not impacting them directly at present.

For some these concerns did not register at all, whereby they tended to take energy for granted as something they could rely on every time they turned on a light switch or turned on their heating.

“I had not thought about energy running out, but it’s a worrying thought ...you take it for granted; like running water.”

Overall however, most Panellists tended to perceive future energy supplies as potentially vulnerable when prompted. This perception was fairly strong, with many feeling there was a high risk of future

energy shortage and that energy was 'running out'. However, despite their potential seriousness, these concerns were felt to lack prominence during their day to day lives, as the risks, while perceived as genuine, were not seen to be pressing. Panellists did not see energy supplies as being in imminent danger of interruption. Hence these issues tended to be seen as something that 'future generations' would face.

Panellists' initial, unprompted concerns around Security of Supply tended to centre around Great Britain's perceived vulnerability to global energy markets. Spontaneously, energy (i.e. gas and electricity) was seen as something that we are becoming more and more dependent on other countries for, and as a resource that will become increasingly scarce.

"All our energy comes in pipelines from Europe, what happens if they turn them off?"

This concern was prompted by a perception that domestic sources of energy are fairly small as a proportion of Great Britain's needs, and that resources the nation does have are diminishing. Some were aware of lower outputs of gas from the North Sea compared to some years ago. Panellists also mentioned the reduction in domestic coal production in previous decades. There was also some limited awareness of plans to decommission nuclear power stations.

"Our supplies are a bit like if you have a bag of sugar in the larder and you keep using and not replenishing, then one day it's going to run out."

Fossil fuels were seen as finite resources, and Panellists were concerned about growing competition for them as they diminish in the long term. Foreign sources of fossil fuels were also not seen as offering guaranteed Security of Supply in the longer term. Countries and regions with large reserves of fossil fuels were felt to be either unstable in their own right, or have a potentially fragile political relationship with Great Britain. The overall concern was that an increased dependence on these nations for energy left Great Britain at risk of being 'held to ransom'. These issues are explored in greater detail in Chapter 5.

For some Panellists these concerns led to a perception that alternative energy sources should be explored. They mentioned the potential to replace diminishing domestic supplies of energy with new sources of renewable energy. Particularly mentioned was the potential for developing small scale electricity generation e.g. solar panels on homes. This was seen as a possible way of meeting future energy demands from domestic sources.

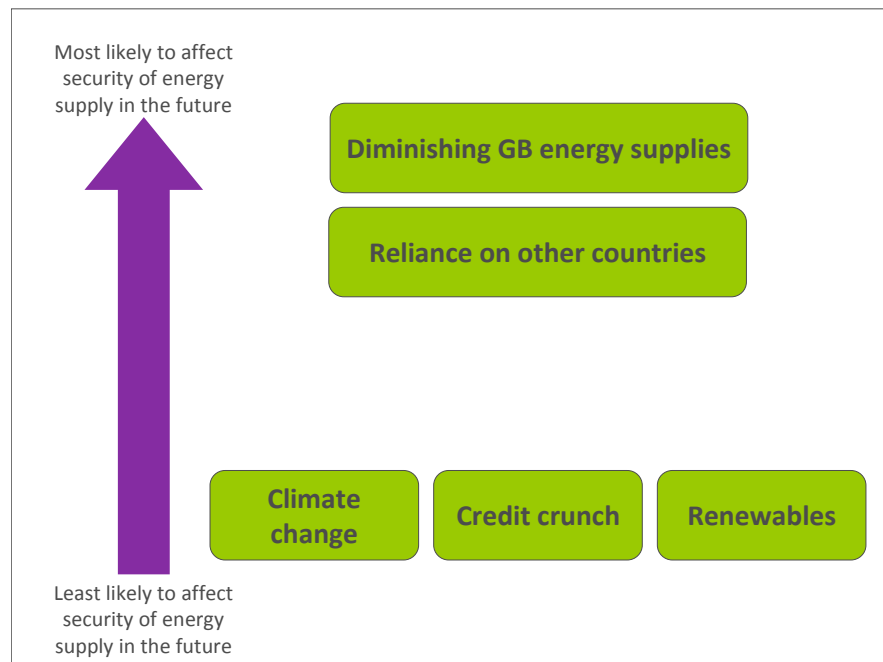
Prioritisation of prompted issues affecting Security of Supply

Panellists were presented with 5 issues which could potentially impact on security of energy supplies in the future:

- Diminishing Great Britain energy supplies i.e. declining North Sea Gas, decommissioning of nuclear plants, EU directive may force closure of coal plants.
- Reliance on other countries i.e. gas market volatility, geo-political problems.
- Climate change i.e. CO₂ emission targets.
- Credit crunch i.e. access to investment capital.
- Renewables i.e. increasing need for different technology to generate supplies.

They were then asked to rank these in order of which they saw as being the greatest issue affecting Security of Supply. This ranking was highly consistent between the workshops. The overall ranking is shown in Figure 2.

Figure 2 – Panellists’ ranking of issues likely to affect security of energy supply in the future



‘Diminishing GB energy supplies’ and ‘Reliance on other countries’ were consistently ranked as the most likely to affect Security of Supply. This reflects their salience as the only issues picked up spontaneously by participants. The top two ranked issues were seen as interrelated. ‘Diminishing GB energy supplies’ was seen as being the cause of ‘reliance on other countries’ and was thus felt to be the more likely to affect Security of Supply. It was felt that if Great Britain’s domestic energy supplies were secure, then there would be no reliance on other countries.

"I am really worried that we won't have any gas or oil here, and that we will have to get it from other countries. We could end up paying so much for it."

Panellists found it harder to rank the remaining issues. They found it harder to understand how these issues impacted on Security of Supply, compared to the clear potential affects presented by the highest ranked issues.

'Climate change' was seen as generally an important issue, but its link to future security of energy supplies was not immediately clear to Panellists. There was low awareness of targets and commitments relating to carbon emissions and renewable energies. These targets were explained to Panellists. However, even when explained, Panellists found it difficult to assess their impact as they could not judge to what extent energy usage might have to change to meet them. There was also low awareness of whether these targets are enforceable, and what implications there might be for not meeting them. For this reason they tended to be considered to have lower potential affects on Security of Supply.

"I have seen things in the news about climate change but I have no idea what we are actually meant to be doing or what I can do to help."

Meeting targets related to tackling climate change was seen as partially reliant on the potential for 'renewables'. The improvement and implementation of renewable technologies was seen as key for meeting these targets, and for meeting future energy needs. However, Panellists were unaware of how feasible renewable technologies are at the moment, and what potential they have to improve in the future. They therefore found it difficult to assess how likely this issue was to affect future Security of Supply. If anything, Panellists tended to see renewables, particularly wind generation, as currently a feasible replacement for traditional fossil fuel generation types. This is due to renewables being both prominent in the media and highly visible (this was particularly the case in Aberdeen and Bradford where some Panellists lived close to wind farms). However, Panellists spontaneously raised the issue of local opposition to renewable technologies, particularly wind farms, due to concerns around visual and ecological impacts (i.e. the aesthetic impact of wind farms and the impact of tidal, hydro and wind on wildlife habitats, especially birds), which was seen as a potential impediment to 'renewables'.

Panellists thought that the development of 'renewables' was seen as dependent on investment, and so linked to issues around the 'Credit crunch'. Similarly to 'Climate change' this was seen as a highly topical issue, but links to Security of Supply were not obvious. The 'Credit crunch' was seen as an issue predominantly affecting consumers, and their capacity to meet energy costs. Panellists acknowledged that it could also affect companies' capacity to invest in new energy sources.

However, they also perceived these investments to be long term, potentially outlasting any short to medium term impact of the 'Credit crunch'. They also perceived Security of Supply to be highly important, and felt that there was 'always money for important things' regardless of how poor overall economic conditions are.

Current and future gas sources

Awareness of current gas sources

Panellists were shown a map of the world and asked to mark where they thought the gas used in Great Britain came from. They tended to be aware that a proportion of gas used in Great Britain is domestic and specifically sourced from the North Sea. However, some Panellists were unaware of sources of gas beyond this.

Some were aware that gas is imported from Norway via pipelines. There was limited awareness of Liquefied Natural Gas (LNG) gas being imported via tanker. Awareness of this source was most prevalent in Aberystwyth because they lived close to the LNG facility based in Milford Haven. Panellists who were aware of this type of gas tended to presume that the source for this supply was predominantly the Middle East.

There was a high level of awareness of Russia as a major exporter of gas. This follows media reports of the Russia/Ukraine gas crisis in 2009.

Concerns around potential future gas sources

Panellists were shown 2 charts. One showed where Great Britain's gas supplies were sourced from in 2009 and the proportions of overall gas supplies that were received from each source (Figure 3). The other showed a forecast of how these proportions may change by 2020 (Figure 4). This forecast was produced by Ofgem to provide Panellists with an idea of how the sources of Great Britain's gas supplies might change over the next 15 years.³

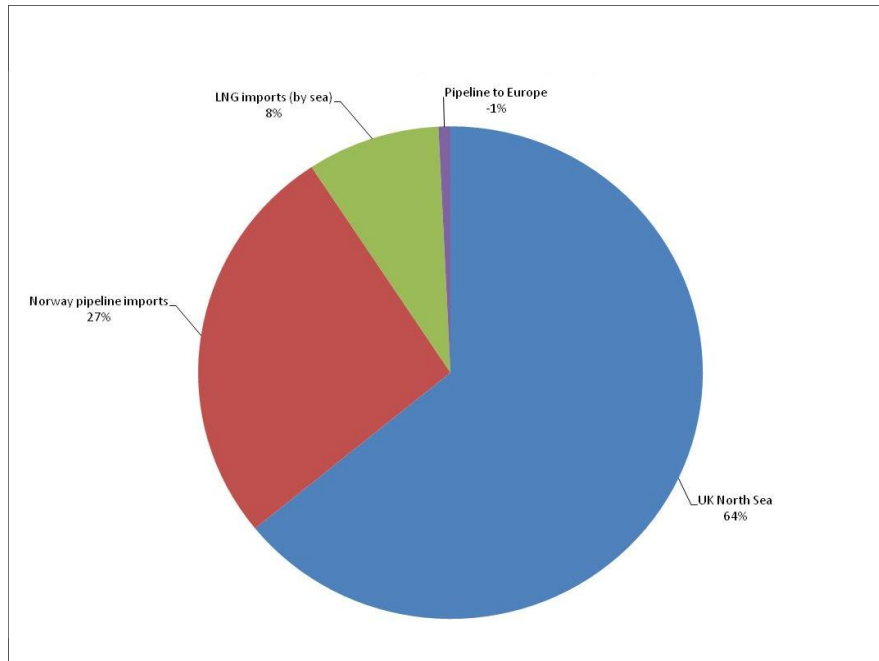
"I knew we got some of our energy from abroad, but not as much as this."

³ The chart provided 2020 forecast data on gas sources based on the Project Discovery scenario entitled 'Dash for Energy'. This scenario is characterised by a rapid economic recovery and a low level of global commitment to tackling climate change, which represents the most gas-dependent scenario analysed.

Response to current sources of gas

Certain aspects of current gas supplies were different to Panellists expectations. They were surprised that North Sea gas made up such a large proportion of current supplies. They were also surprised that Liquid Natural Gas (LNG) imports by tanker were as large as they were given there was such low awareness of this source.

Figure 3 – 2009 Great Britain gas sources



Source: Ofgem – Project Discovery

Concerns around future gas supplies

The information on potential future gas sources reinforced already existing concerns around potential effects to future Security of Supply.⁴ The substantial drop in North Sea gas, from supplying nearly two thirds of Great Britain's gas in 2009, to potentially providing less than a quarter in 2020 was of great concern to Panellists; they recognised the extent to which Great Britain is likely to be reliant on other countries for supplies. Beyond this there were additional concerns around which countries Great Britain will be reliant upon.

“I am really worried by how much the gas from the North Sea has gone down, we will be even more reliant on other countries than we are now.”

Norway was seen as a reliable country for gas supplies, being perceived as stable with close political and cultural ties with GB. However, there were concerns around supplies originating from Russia and the Middle East, although for different reasons. Russia was seen as relatively stable, but as having a volatile and unpredictable political stance towards other countries. Panellists perceived that gas supplies from Russia could be at risk of being cut off for political reasons.

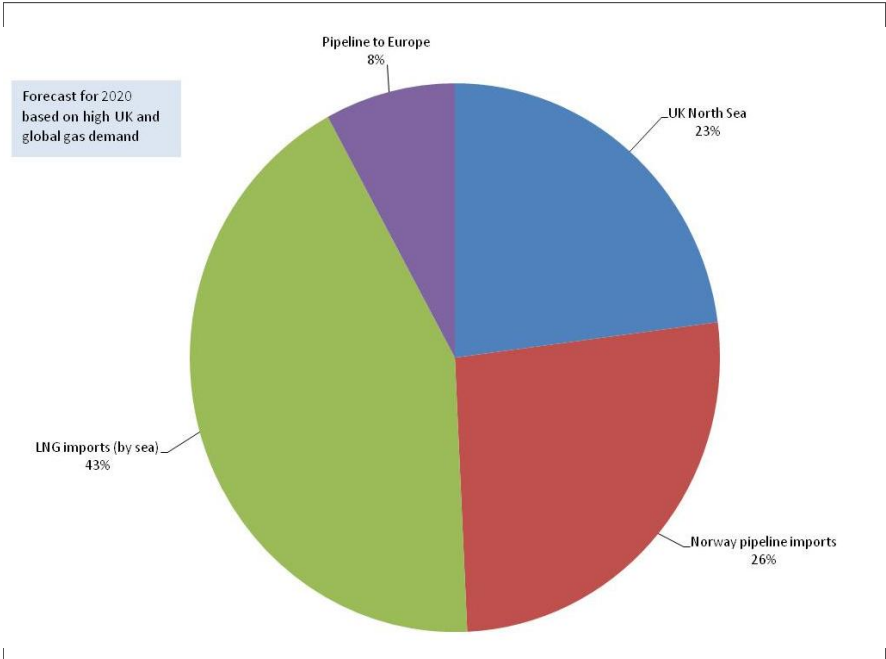
“You always hear things about Russia and political problems, what happens if that happens in the future and we fall out with them. We could be cut off.”

The Middle East posed different concerns. It was seen as a potentially unstable region (i.e. more prone to war and civil strife), with which Great Britain could have strained relations with. The region was seen as being particularly concerned with generating as much revenue as possible from its natural resources. It was perceived that in the future the Middle Eastern countries might raise their prices, and Great Britain would have no option but to pay. Concerns here were around the potential for increased cost rather than supplies being cut off altogether.

“If we are going to be reliant on the Middle East then we need to improve our relations with them.”

⁴ When asked in the questionnaire administered prior to the workshop 5 out of 6 Panellists claimed to be either fairly or very concerned at the prospect of more gas coming from abroad over the next 10-15 years. After the workshop this had increased to more than 9 out of 10 being fairly or very concerned.

Figure 4 – Forecast for 2020 Great Britain gas sources (based on a forecast scenario with high UK and global demand)



Source: Ofgem – Project Discovery

The effect of providing Panellists with information on gas sources therefore cemented and clarified their existing concerns around the security of future energy supplies. This reinforced the perceived need to protect Great Britain from the risk of becoming reliant on other countries by developing alternative sources of energy.

“The situation will worsen and we will be more reliant on other countries. It’s quite frightening to be reliant. We shouldn’t be reliant on other countries, we should be thinking about ways in which we can produce energy ourselves.”

“We have the resources to power (wind, wave, tidal etc.), we are an island so we have the resources to do these things. By doing these things means less reliance on other countries and being able to make our own resources.”

Current and future electricity generation

Knowledge of current electricity sources

Awareness of current electricity sources was mixed. Fossil fuels tended to be seen as the main sources of electricity, with some knowing that gas and coal were commonly used for electricity generation. However, oil was often frequently mentioned as a significant source of electricity. Panellists also believed renewables to be a significant element in overall electricity generation. Wind and hydro generation were most commonly mentioned (hydro power was particularly well known in both Aberdeen and Aberystwyth where Panellists knew of local generation). Nuclear power was also mentioned by some, although others thought this was either not used or used only to a limited extent in Great Britain.

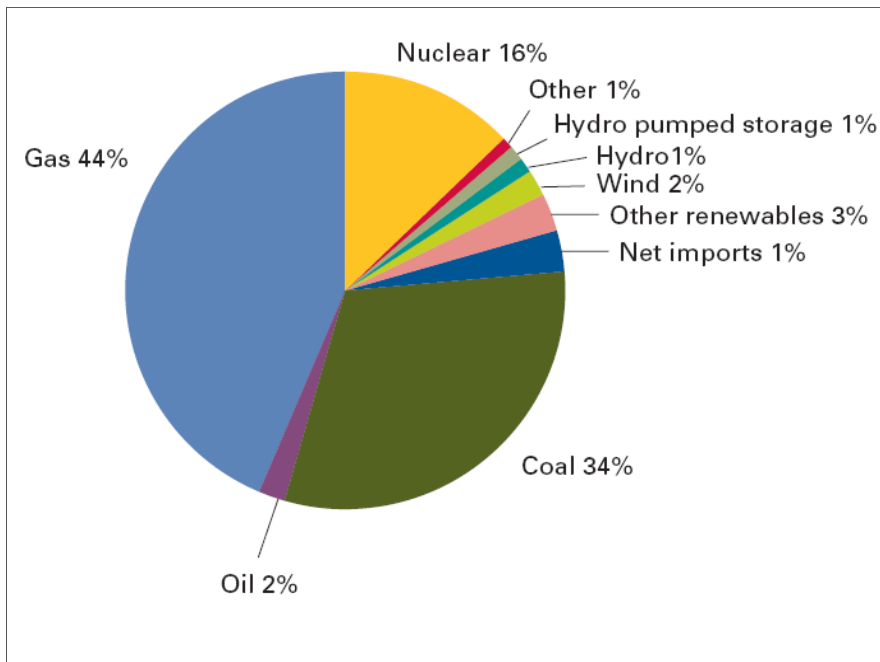
“I know about hydro power being used because there is a station just down the road.”

Panellists were shown a chart of the different sources of electricity used in Great Britain, and the proportion of electricity these produced in 2008 (Figure 5). Panellists were surprised that gas, coal and nuclear produced as much electricity as they did, and that renewables produced only a small proportion of overall supplies. They had expected oil to be a much more significant generation type as this is the energy resource they hear most about. Panellists also tied the key role of gas in electricity back to earlier conversations around domestic supplies diminishing.

“I knew there were lots of different sources of energy but I wouldn’t have thought there were this many.”

They expressed concern that reliance on other countries for gas supplies might also impact on security of electricity supplies. Some Panellists also made similar comments on reliance on other countries in relation to coal. They felt that Great Britain did not mine for coal any more, despite potentially having significant reserves, and therefore believed that supplies for coal power stations would also be internationally sourced, with some mentioning China as a potential source.

Figure 5 – Great Britain’s electricity supply in 2008 showing proportion of electricity generated from different sources



Source: Department of Energy and Climate Change, Energy Markets Outlook: December 2009, page 30

The meaning of ‘green energy’

Green electricity generation sources were initially defined as being ‘clean’ or ‘natural’ by the Panel. These terms were generally felt to mean sources which do not burn fossil fuels and are low carbon emitting. When considering this classification, Panellists were generally thinking of low carbon, renewable technologies such as wind, hydro, tidal, wave and solar generation. These were the generation types with the greatest perception of being green.

“Green to me means clean and good for the environment.”

“We should be using resources which can help save the planet.”

A small number of Panellists did raise some potential issues related to how these technologies effect the surrounding environment, particularly the potential impact on wildlife through damage to habitats. This was predominantly the case for tidal, wind and hydro power. However, these concerns were considered a much lower priority than broader environmental issues such as climate change. The ‘clean’ i.e. low carbon status of these technologies was therefore seen to trump concerns about any effect on the environment they might cause. There was a feeling that ‘no technology is perfect’ and that there would always be some problems they would have to accept.

“Wind farms may not be the prettiest of things and I have heard that birds can be killed easily by flying into them, but we need to use different energy sources for the future.”

Nuclear power and biomass technologies also had some claim of being green depending on how the term was understood. Panellists recognised that nuclear could qualify as being green as it met the criteria of not burning fossil fuels and being a ‘clean’ i.e. low carbon technology. For this reason some Panellists did classify nuclear as being a green generation type. For others it was not considered to be green in spite of its low carbon credentials. These Panellists took a slightly broader interpretation of green as being technologies that are ‘non-polluting’.

Nuclear therefore did not qualify as green to some due to questions over how the nuclear waste generated was handled and its potential effect on people and the environment. There was also concern over the safety aspect of nuclear power, and the potential human and environmental impact of a major disaster at a nuclear power plant. These concerns around safety and pollution were more prevalent among older Panellists, who tended to be more aware of previous nuclear disasters such as Chernobyl and Three Mile Island. Younger panellists tended to perceive nuclear as being safe and ‘clean’ as it is perceived to be widely used in other countries. Female Panellists also tended to be more concerned about nuclear technology.

“Some people have negative views on nuclear and that is always going to be in their minds no matter how safe you say it is.”

Biomass, conversely, could be considered to be green by some despite failing on the key criteria of being ‘clean’ i.e. low carbon, as it was perceived as using renewable, ‘natural’ raw materials and even waste products. However, there was generally a low level of awareness of this energy source. Some Panellists mentioned the potential of using algae grown in the seas as a biomass energy source. This knowledge tended to have come from television adverts from petro-chemical companies. These were felt to be good sources of energy as they could be domestic, and grown in areas that were not needed for other purposes. The idea of using waste was also appealing by putting something to use which would otherwise go to landfill. However, Panellists who were less aware were generally confused about what biomass entails and therefore how green it could be considered as being.

“They are working on biomass...growing the algae to use...it’s eco-friendly.”

“I don’t know anything about Biomass so I can’t say I want it used in the future.”

Ideal future electricity source

Panellists were presented with a range of electricity generation technologies which were described as follows:

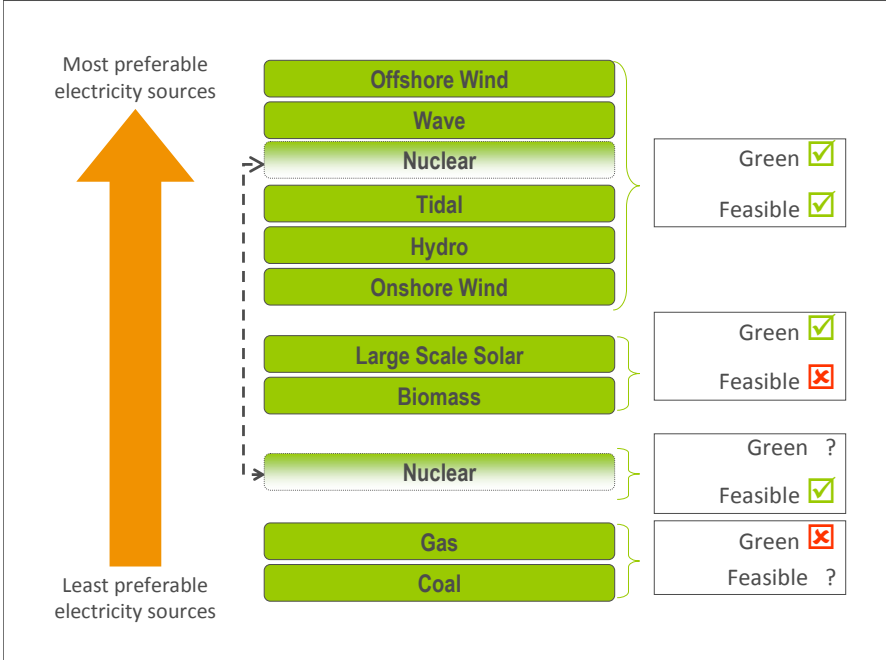
- Biomass (generation from biological sources, for example algae, wood or special energy crops)
- Coal
- Gas
- Hydro power (electricity produced by the force of moving water e.g. water turbines in rivers)
- Large scale solar power (rather than solar panels on your own home)
- Nuclear power
- Tidal power (electricity produced by the movement of tides e.g. a barrage across a river estuary)
- Wave power (electricity produced by the constant movement of waves)
- Wind farms off the coast
- Wind farms on the land

Panellists were asked to rank these different technologies to show which they would most want to see used in 10-15 years time, based on the types of technology they would most like to see used in an ideal world, rather than the types they thought would be used in the future.

Panellists' first instinct was to favour technologies they perceived to be 'clean' over ones they perceived to be 'dirty' (as described in the section above 'The meaning of 'green energy)'). However, despite Panellists being asked to conduct this ranking in an 'ideal world' scenario, Panellists instinctively began to build in practical considerations. Some technologies which were initially favoured because of their perceived 'cleanness' were then downgraded because they were not seen as practical sources. This was generally because they were considered to be inefficient, and so incapable of producing enough energy to meet the needs of Great Britain's population.

Across the workshops, 3 main groups of technologies emerged. Most favoured were those that were perceived to be 'clean' and 'efficient' as they had the potential to be a plentiful and reliable source of electricity. Next were those that were perceived as 'clean' but not 'efficient', followed by ones that were 'dirty' technologies. These groups are shown in Figure 6.

Figure 6 - Panellists' 'ideal world' preference of electricity generation technologies in 10-15 years



Top ranked electricity sources were those perceived to be ‘clean’ and ‘efficient’. These met the meaning of green described above, as not being ‘dirty’ or ‘polluting’ and seen as being more ‘natural’. They were thought to be ‘efficient’ due to the fact that Great Britain is seen to have a great deal of readily available ‘raw materials’. Panellists felt Great Britain has a lot of coastline and hence ready sources of wind, wave and tidal power.

“We are surrounded by water and it is always windy; we should use it as much as possible.”

Hydro was also seen to have potential in certain areas of the country e.g. the Highlands. Offshore wind was preferred to onshore wind as it was seen as less visually intrusive, and potentially more consistent in terms of wind.

The second set of electricity sources were seen to be ‘clean’, but less ‘efficient’. There was low awareness of biomass and how it works. Panellists were not sure what the raw material would be or the potential scale of this type of generation. They therefore tended to be less sure if it could be relied upon as a primary source of electricity. Solar power was initially favoured as it utilises a freely available source of energy. Some Panellists had also heard claims that solar power had a great deal of potential if it is possible to find an efficient way to harness it. Large scale solar was therefore initially felt to have good potential as a technology for the future. However, on further discussion Panellists tended to feel that it would not be a feasible option for Great Britain. Large scale solar sites were

generally perceived as needing to be based abroad. They felt this might make it less practical because of the distance the electricity would have to travel i.e. it would cost more to transmit the electricity over long distances. Also, if this electricity was sourced from abroad it would potentially be as insecure as foreign imports of gas and coal.

“We couldn’t have large scale solar panels here, there isn’t enough sun!”

Nuclear could fit into either the most highly rated group of ‘clean’ and ‘efficient’ technologies, or below the second set of ‘clean’ but less ‘efficient’ ones. Across the board, nuclear power was seen as a highly ‘efficient’ and feasible source of energy as it was seen as capable of producing a large amount of electricity. The variance in positioning depended on the Panellists views on whether nuclear was seen as a ‘clean’ technology or not. As discussed above, some Panellists saw it as ‘clean’ and others did not. Those who did tended to rank it as among the most highly favoured in an ideal world. For Panellists who felt it was not ‘clean’ it tended to be ranked among the least favoured.

Overall, gas and coal were the least favoured sources as they were felt to be ‘dirty’. They were seen as being ‘efficient’, but only as a short term option. Perceived future competition for gas resources, and therefore potentially increased prices over time was also seen to make them an inappropriate choice when considering future Security of Supply. Additionally, they were seen to be inherently insecure as they rely on foreign supplies of raw materials.

“I want coal and gas to be used less as they are the dirtiest of all these, and they probably damage the environment the most.”

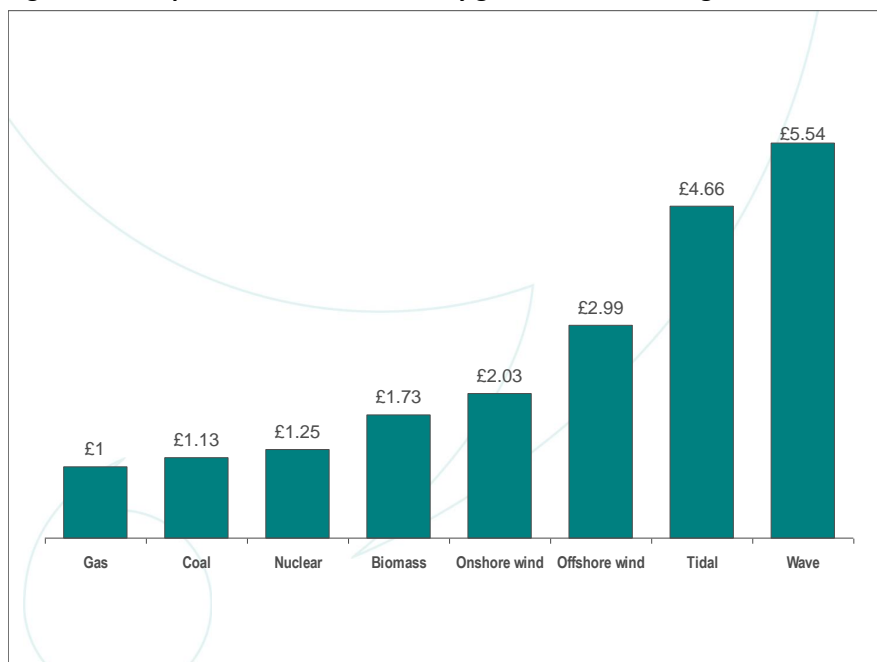
The impact of cost on ideal future electricity sources

After their initial ranking, Panellists were shown the potential relative costs of the different types of generation technologies (Figure 7). It was explained to Panellists that these were estimates designed to show the potential differences in costs to consumers of different technologies, based on a series of assumptions:

- These are based on costs of technologies at present e.g. with raw materials at present market rate rather than projections of future costs
- They build in the fixed upfront costs of investment in technology and infrastructure, spread over the whole lifetime of the asset
- They build in variable running costs and a cost for carbon⁵

Figure 7 below contains the relative costs of some of the different generation technologies available. These data are purely illustrative, intended to highlight the difference in relative costs for a single 'unit' of electricity i.e. *if a 'unit of gas costs £1 then a unit of X costs ...'*

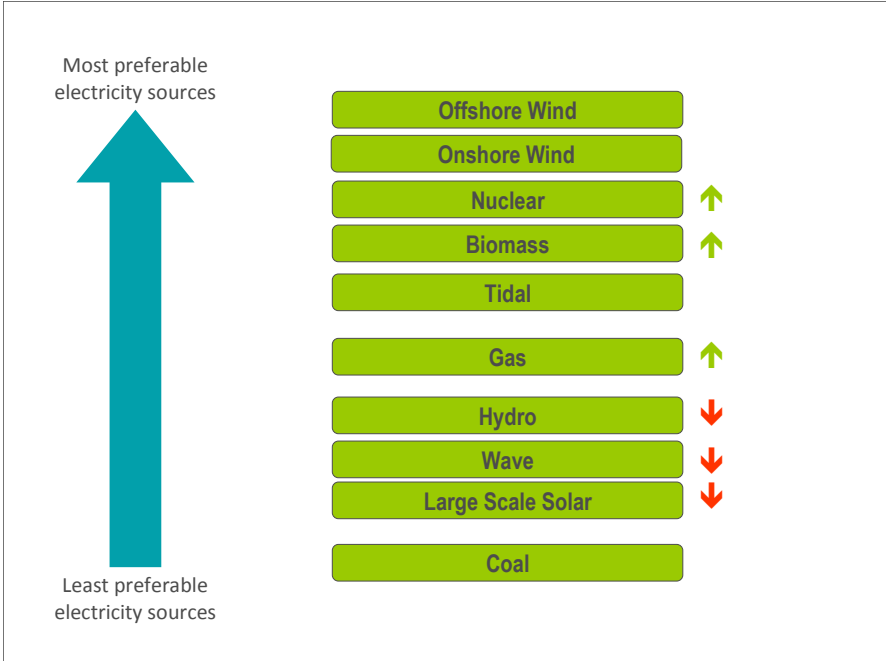
Figure 7 – Comparative costs of electricity generation technologies



⁵ The relative costs presented are for indicative purposes only and are based upon long-run-marginal cost estimates using 2008 data for GB generation plant.

These costs were provided to further ground their preferences for electricity generation technologies by assessing their impacts on consumers. They had a clear effect on Panellists, generally causing them to shift their focus from more expensive to less expensive technologies. However, this is not to say cost became the only concern, and the desire to move away from fossil fuels to more ‘clean’ energy remained strong. The effects of this change in focus are reflected in the revised ranking of technologies shown in Figure 8.

Figure 8 – Panellists’ preference of electricity generation technologies in 10-15 years taking cost into account.



The cheaper forms of ‘clean’ technology became favoured, with nuclear and biomass being ranked the primary source of electricity in some cases. In some cases nuclear became the overall preferred technology. However, most groups maintained a mix of the previously favoured ‘clean’ energies as well, but tended to want them to account for a lower proportion of overall generation than previously. The use of wind was generally maintained, but at lower levels than previously favoured, and there was a tendency to shift from offshore to onshore wind due to the cost saving.

“I know some of these things at the top are more expensive but we need to invest for the future.”

“I think the reason for these things being so much more expensive because they need setting up and starting up, coal and gas is so cheap because that has already been done and paid for.”

Wave power tended to be dismissed due to its position as the most expensive energy source. However some higher price energy types, particularly tidal were still preferred, if only to a lesser extent. They were perceived as being potentially efficient in producing a highly consistent source of electricity. Panellists considered the impact of these higher cost technologies quite closely. While initially put off by the cost, some Panellists came to feel that they were acceptable. They rationalised that higher cost technologies such as tidal may still be subject to future improvements which could reduce their costs in the long term. While Panellists were briefed that the time period for consideration was the next 10-15 years, they also felt it was important to think about the longer term, and that decisions should be made with this in mind. Some therefore felt that due to the transitional period from old technologies to new technologies, they would accept the higher costs necessary to invest in these new technologies. Panellists also felt that prices may be high only in the short to medium term, and that these would come down in the long term as initial investment costs were paid off.

“The costs put tidal and wave out the list, my ‘blue skies’ is for natural resources. But you just wouldn’t be able to survive on these costs.”

While there was a general shift towards cheaper technologies gas and coal, which were the cheapest tended to remain in lower positions and not be included in overall mixes other than in a very minor role. As well as not being seen as ‘clean’, there was an aversion to them because they were perceived to be untenable in the long term, i.e. they will run out, and this would make Great Britain vulnerable to potentially volatile international markets.

Responsibilities

Demand Side Response (DSR)

Panellists were provided with a graph showing the typical daily energy usage and it was explained that smoothing the demand peaks at differing times of the day could help to reduce the cost of the system. The discussion considered what consumers could do to help smooth this line and what the role of the consumers could be.

As identified in the first meeting of this Panel, discussion showed that many Panellists had made changes to their consumer goods and their behaviour in order to reduce the cost of bills and reduce energy usage, including using energy efficient appliances and using appliances less or turning them off from standby. The majority of Panellists have made changes to their behaviour and therefore tended to see a role for consumers in helping ensure Security of Supply in the future by using energy responsibly, however as with their behaviour to date this tended to mean generally reducing the amount of energy they use by:

- Using energy efficient appliances e.g. light bulbs, fridge-freezers etc.
- Using energy more sparingly by turning off things they are not using, not leaving appliances on stand-by, turning central heating down etc.

“I think people are already doing quite a lot at the moment to save energy, I always turn off everything in my house at the plug and use energy saving light bulbs.”

Panellists did not immediately think about using energy at different times of day. They tended to think of overall energy usage as being important and could not immediately understand why shifting usage from evenings to night-time would make a difference.

“I think the most important thing is to reduce the amount of energy we use so that we don't run out of supplies.”

This concept was hard for Panellists to grasp as it required them to think about breaking their current habits and adopting new ones, and overall Panellists seemed to feel it was unlikely they would adopt these new habits.

“I can't change the time I cook and do the washing, I have three kids and those 'peak times' are when I have to use things in my house, there is nothing I can do about it.”

“Those are the times I go to and come back from work and that is the same for everyone, I don’t know how we can be expected to change when we do things when so much is dependant on the working day.”

The introduction of financial incentives such as cost savings for shifting usage, were seen to be essential for encouraging these behaviour changes. This reinforced the findings from the previous Panel meeting where it was identified that cost is a major factor in affecting change in behaviour. .

“If costs were lower at night then people are much more likely to use the energy at these cheaper times and make changes to their behaviour.”

Many were also unaware of the peaks and troughs of energy usage during a typical day and it was felt that a higher level of awareness of both this and the benefits of using energy at different times of the day could help to change behaviour. As with the first meeting, many Panellists were unaware of the levels of energy used in their households, and the availability of an appliance such as a smart meter which showed levels of energy usage would help to raise awareness.

“If I could see these peaks in my own house then I would be more likely to do something about it.”

Panellists felt that some responsibility lay with manufacturers to build appliances which make it easy for people to use electricity during antisocial hours e.g. washing machines with a timer function. However, it was also felt that upgrading equipment may require significant expenditure, and so may be a barrier to people switching to using electricity at night.

Panellists were then asked to consider potential consumer responsibilities for the future, including running the dishwasher at night and using storage heaters. The full list of potential changes to behaviour can be found in the appendices.

The most feasible changes to behaviour for Panellists were:

- **Using appliances after midnight** – some Panellists do this already, out of habit rather than to save money e.g. for example using washing machines at night as this fits with their routine, and others think they would if they could save money. However there was resistance from some Panellists living in flats as they felt the noise of appliances would disturb themselves and neighbours. There were also some mixed messages identified in Aberdeen surrounding the safety of using appliances after midnight.

“I would be happy to use things after midnight but there is an advert at the moment about the dangers of using things while sleeping as they are dangerous and could catch on fire.”

- **Heating water at night** – most Panellists favoured this idea especially if they had hot water tanks and immersion heaters set by timers. Most thought that this would be appealing if the money they saved outweighed that spent using their boiler.

Other changes which seemed less feasible to Panellists were;

- **Cooking at different times of day** – for most Panellists meal times are fixed, especially for those with children and those in full time employment. Although some older Panellists thought this might be possible.
- **Using storage heaters** – some Panellists were aware of these, but the majority saw these as inferior to central heating and so would not favour their use in the future.

“I used to have a storage heater in my house and it was so bad it felt like my house wasn’t even heated.”

- **Use of technology that would automatically switch off appliances** (e.g. fridge, freezer etc), or heat water at different times of day, if electricity supplies are stressed – most Panellists were suspicious of this technology as they were unsure of the impact this might have on their appliances e.g. would their freezer defrost? A small number of Panellists felt that this type of control would be acceptable as they would not notice it and would simply forget about it after a while. Panellists were however more open to having more information on their energy usage, and some spontaneously mentioned smart meters. They felt that this would help them to make choices for themselves about their energy usage based on the price at that time of day, and would encourage them to switch things off themselves.

“I don’t like the idea of this, I often have a fridge full of food and if the electricity got cut off I would lose all my food and lots of money.”

- **Interruptible supply** – The idea of an interruptible supply did not appeal to most Panellists. Some simply did not like the idea of being at risk of power cuts, even if these were planned and those with young families said that this would not be a viable option for them. Some younger Panellists and older Panellists felt they might consider this for a reduced cost as they could arrange to be out at the time their power went off. Some did identify concern about this development in tariffs as they felt might appeal to the most vulnerable consumers, who would

be attracted by the lower cost implications, but who might be most affected by power cuts e.g. pensioners, young families.

Overall responsibilities

Panellists could see potential benefits and disadvantages of both suppliers and government having a role in ensuring Security of Supply. Some also called for an independent, impartial voice to have a strong role in this decision making. However the buck was still felt to eventually stop with the government because people are able to hold them to account at elections. This view increased over the workshop with around half of participants feeling government should be responsible making sure there are sufficient gas and electricity supplies before the workshop and around 2 out of 3 thinking this at the end.

Suppliers were perceived as having profit as their overriding driver. As identified in the first meeting and with last years Panel there is a general feeling that they 'rip customers off' and 'take massive bonuses and margins'. The focus on profits was however seen to produce a short-term outlook, unsuited to decisions about Security of Supply which might involve heavy investment in long term projects. However, they were also perceived as having expertise in developing energy sources, which Panellists felt should be exploited in meeting future challenges. This view also hardened somewhat over the workshop with a lower proportion feeling suppliers should be responsible for making sure there are sufficient gas and electricity supplies at the end of the workshop than at the beginning.

"Suppliers are just out to get the most money that they can, I do not trust them at all."

Government was perceived to be potentially susceptible to pursuing objectives that were politically beneficial to them, rather than in the best interest of the country. There was also the perception that government may be prone to inefficiencies. However, overall they were seen as having authority and so were the natural place for responsibility for Security of Supply to rest. Some Panellists felt that they have the most knowledge and understanding of the problems and should be the ones to invest in the future of energy in Great Britain.

"I might not trust the government fully, but I trust them more than suppliers."

Consumer trade-offs around Security of Supply

Initial priorities when considering trade-offs

To explore the trade offs that exist when considering Security of Supply, Panellists were presented with three potential concerns and asked to rank them in terms of which was most important to them. These concerns were:

- Having a secure supply of energy
- Having low cost energy
- The likelihood of meeting environmental targets

Across the workshops, Security of Supply tended to be considered the most important issue. Cost was also of high importance, although it was trumped by the need to 'keep the lights on'. There was a feeling that it was better to have a secure supply of energy that was of higher cost, than lower cost energy that was susceptible to interruption. A minority of Panellists did consider cost to be the most important issue. They perceived energy to be a significant expense at present, and that higher energy cost would make life very hard for consumers. They tended to be particularly concerned for vulnerable consumers who they felt would be at risk if prices rose considerably in the future. The likelihood of meeting environmental targets was seen as the least important of the three considerations across the board.

We have already seen how cost impacted on the desire to be green in chapter 5 i.e. some technologies initially favoured because they were 'clean' were less favoured once their relatively high costs were revealed. At this stage of the conversation when Security of Supply was considered explicitly as a factor it became clear that this was more important still. This was indicated earlier in consumers favouring electricity generation technologies they perceived to be more secure because they were not reliant on foreign countries. Being 'clean' then was only felt to be of prime importance

in the 'ideal world' they initially reflected on, when cost and Security of Supply are not factored into the equation.⁶

The pre and post workshop questionnaire show how the importance of Security of Supply over cost and environmental considerations developed over the workshop. Over the workshop the proportion of Panellists rating 'Great Britain being able to provide all the gas and electricity people want to use' as their first or second most important factor relating to gas and electricity doubled (from 30% to 60% of panellists). At the same time 'Having gas and electricity that is affordable for everyone' fell slightly (from 67% to 60% of Panellists) and those considering 'Being able to help the environment' the first or second most important factor fell more significantly (31% to 20% of Panellists).

Considered trade-offs around future Security of Supply

Panellists were shown 3 hypothetical options of how future energy markets could be arranged.⁷ These demonstrated the trade-offs involved in developing policy to ensure Security of Supply:

- The Market led option
- The Obligated option
- The Government led option.

These options are shown in full in the appendices and, their main features are described in Figure 10. These features were presented in terms of a probability i.e. that there was a higher or lower likelihood of having a particular outcome.

Panellists were asked to initially consider these options individually and decide which best reflected their priorities. They then discussed these options as a group, sharing which they preferred, their reasons for selecting it and the trade offs they had made in coming to that view.

⁶ It should be noted that the focus of information provided in this workshop was on security and cost of supply, and information on the impacts of climate change was not specifically provided at this workshop. However, environment and sustainability issues had been discussed in detail in the first workshop.

⁷ The options provided to the Panel were illustrative only and do not exactly correspond to Ofgem's consultation document *Project Discovery: Options for delivering secure and sustainable energy supplies*, Ofgem, 3 February 2010

Figure 10 – Main features of options for future energy markets

Option	Risk of interruptions to supply	Likely costs	Likelihood of meeting environmental targets	Likely technology and innovation
Market led	Low/medium	Bills will rise, but likely to be lowest. Chances of price spikes	Low/medium risk do not meet targets	<ul style="list-style-type: none"> • Likely to be more gas, with highest reliance on other countries • Likely to be more wind farms • Greater chance of innovation
Obligated	Lower than market led	Bills will rise, but lower than government led option. Some chance of spikes	More likely than Market led	<ul style="list-style-type: none"> • Likely to be a mix of technologies including nuclear and renewable • Likely to be less gas • Carbon Capture and storage likely to be supported
Government Led	Lowest	Highest – but also likely to be flat	Most likely to meet targets	<ul style="list-style-type: none"> • May include more nuclear, with least reliance on other countries • Likely to be less chance of innovation

In considering these three options, Panellists were being asked to consider the interactions between the features of the different options e.g. if you want a higher security option, you also have to accept it is likely to cost more etc.

As with the initial ranking, security remained the overriding priority. The lowest security option was dismissed by most on the basis that it involves an unacceptable level of risk of interruptions to supply. However, a few who valued a low price most highly were prepared to trade this for lower security and so decided the lowest cost option best met their needs. As an additional benefit lower cost options also tended to involve the greatest perceived level of innovation. Whilst this was valued, it was a side benefit related to lower cost options rather than being the reason to choose them. Lower price options were least preferred due to the reliance on gas, as this was felt to put Great

Britain at risk of an insecure and volatile foreign market (which they perceived as the cause of the risk of interruptions).

“I don’t feel safe that we rely on other countries for our energy.”

Panellists favouring the highest cost option tended to be those who were highly risk averse, wanting the lowest possible risk of interruptions. Costs, while higher, were also presented as being potentially more stable. This was seen as a benefit because the lack of volatility was seen to make cost a known quantity for which you could budget.

“A higher but stable price is better. It’s the stability that appeals to me the most.”

“I would want something which was stable and less reliant on other countries.”

Some, while continuing to favour security, took a slightly more rounded view and struck a balance between price and security. They also valued security overall, and wanted a low risk option which was seen to meet that need. However, they also felt the highest security option lacked innovation and so traded off what they perceived as a **slightly** reduced level of security (although not what they perceived as ‘insecure’) against greater innovation. This slightly lower level of security also brought slightly lower costs, however while this was an additional benefit Panellists who most preferred this option were not trading off security for lower costs.

“A happy medium between price and risk.”

“I like that Security of Supply is only a low risk, and the idea of using less gas and more renewables.”

Most Panellists therefore did not go for the lowest cost options, favouring more secure options. However, this was dependent on the level of the cost increase. Cost could become an issue if price increases (compared to cheaper options) were large. Panellists tended to be comfortable with moderately higher costs to ensure Security of Supply. If higher cost options were significantly higher than cheaper options the cost might become a more dominant factor. Most Panellists favoured options that offered a high likelihood of meeting environmental targets. However this was not the reason for choosing them, but rather a bonus for selecting them.

Panellists were also probed on the impact of higher cost options on more vulnerable consumers. They recognised that favouring higher cost options may mean more people may struggle to pay their energy bills. However they accepted that this was a necessary evil for ensuring security levels for all.

To mitigate this, they favoured relative increases in fuel benefits for vulnerable people to account for additional increases to costs that may be caused by higher security options. They also accepted that this may have a knock-on effect on overall taxation i.e. taxes may have to increase to pay for additional benefits.

“It is better for those who struggle to pay for the bills at the moment and stop them not being able to afford their bills in the future.”

“I don’t like the idea of price spikes because you could be having a really bad month and not be able to afford it, what would happen then?”

Appendices

Discussion guide



Ofgem Consumer Panel – Session 2 Agenda

- PRE TASK – Participants to bring one object which represents how they feel about energy (gas and electricity) and the role it plays in their lives

Timing	Item	Materials
17.30-18.00	Arrival and Registration	
18.00 – 18.15	IN PLENARY: <ul style="list-style-type: none">• Welcome and housekeeping (Opinion Leader lead facilitator)• Welcome back to the panel – headline topics for the evening Security of Supply (which we discussed briefly last time) – i.e. energy: gas and electricity sources, having enough energy, ‘keeping the lights on’ and keep your house warm in the long term• Complete omnibus survey BREAKOUT: <ul style="list-style-type: none">• General introductions on tables• What they brought to represent their feelings and why	Omnibus survey

Timing	Item	Materials
18.15 – 18.30	<p>Security of Supply</p> <ul style="list-style-type: none"> • General views on Security of Supply in the next 10-15 years <ul style="list-style-type: none"> – Whether they have any concerns around security – To what extent – Are they concerned that energy will ‘run out’? – What do they see energy as – a right, or just another commodity? What else is it like (e.g. food and water vs. an iPod etc?) To what level? • Brainstorm issues affecting Security of Supply in the next 10-15 years • Spontaneous discussion on issues • Prompt on specific issues (list all issues – is anything missing?), followed by specific discussion on each: <ul style="list-style-type: none"> – Diminishing GB energy supplies (declining North Sea Gas, decommissioning of nuclear plant, EU directive may force closure of on coal plants) – Reliance on other countries (Gas market volatility, Geo-political problems) – Climate change - CO₂ emission targets – Credit crunch – access to investment capital – Renewables (increasing need for different technology to generate supplies) etc • Laddering exercise – place each issue on a scale of most likely to affect security of energy supply in the future to least <ul style="list-style-type: none"> – Discuss reasons for positioning – What kind of threat they pose – How worried they are about them 	Blank cards

Timing	Item	Materials
18.30 – 19.20	<ul style="list-style-type: none"> • Future energy supplies: • What sources of electricity they think we use at the moment <ul style="list-style-type: none"> – Prompt with handout • What will be the source of our electricity in the future i.e. next 10-15 years (lay out cards of potential sources from omnibus) <ul style="list-style-type: none"> – Ranking –which are the <i>most desired</i> sources of electricity in terms of delivering our future power needs – Allocating proportions – 10 counters, allocate to power sources they want to be the most important <p>Environment</p> <ul style="list-style-type: none"> • What they understand by ‘green’ energy <ul style="list-style-type: none"> – Low CO₂, renewable etc – Probe on status of different types of energy i.e. solar, wind, tidal, biomass, nuclear etc – are they green? • How important they think ‘green’ energy is • Prompt with the relative costs of different power sources’ <ul style="list-style-type: none"> – How, if at all, does this affect previous ranking • What they think of the cost of green energy – can be very costly, who should fund it? Government, consumer, companies and why? 	<p>Handout 1 – Current electricity sources</p> <p>Cards with power sources – and counters</p> <p>Handouts 2 and relative price graphs</p> <p>Handout 3 – Blank Map</p>

Timing	Item	Materials
<p>19.20 –</p> <p>19.35</p>	<ul style="list-style-type: none"> • Sources: Where in the world they think raw materials e.g. gas, for energy will come from <ul style="list-style-type: none"> - Map exercise – stick pins in where they think energy will come from - Prompt with current gas source - How worried they are about overseas sources - Prompt on potentially important future sources– Russia, , Middle East, North Africa • Plenary feedback • What final arrangement of future electricity sources they came to and why? <p>Any concerns around imported gas?</p> <p>Comfort break</p>	<p>Handout 4 – current and future gas sources</p>

Timing	Item	Materials
19.35 – 20.00	<ul style="list-style-type: none"> • Consumer responsibility: • Handout explaining peaks of energy usage, and how smoothing demand peaks can reduce the cost of the system <ul style="list-style-type: none"> – What consumers could do to contribute – how this peak can be smoothed – what is the consumers’ role • Probe specifically on potential consumer responsibilities - Running dishwasher at night etc <ul style="list-style-type: none"> – What they think of being asked to do this – How people can be encouraged to do this – should the government set framework for prices and leave consumers responsible for their own efficient use of energy? Or could there be mandatory energy efficiency measures put in place so everyone contributes equally (i.e. rolling brownouts)? – Are there things that might help you do this? E.g. using technology such smart meters that show the cost of energy usage <p>Responsibility</p> <ul style="list-style-type: none"> • Who they think is responsible for the things we have been talking about – Security of Supply, and the energy mix, cost control, green targets etc. • Discuss - Government responsibility, energy company responsibility and consumer responsibility – for each <ul style="list-style-type: none"> – – how they are/aren’t responsible for these issues – how much they can be relied on to address these issues – what role they should have, why • Sum up – overall who is responsible <p>PLENARY FEEDBACK</p>	<p>Handout 5 - Typical day usage</p> <p>(IF NEEDED) Handout 6 - on what consumers may be asked to do in the future/what the government might impose</p>

Timing	Item	Materials
20.00 – 20.15	<p>Options and Trade-offs :</p> <ul style="list-style-type: none"> • Video – to briefly introduce Project Discovery and provide some context and background, and to highlight some of the key tradeoffs that are involved. • Initial trade-off: Security of Supply, environmental friendliness and cost of energy <ul style="list-style-type: none"> – Initial ranking of which is most important to ‘have what they want’, and why – Which are least important/most willing to compromise on – Where do they see the most/least ‘risk’? 	Cards showing Security of Supply, costs and environment
20.15 – 20.35	<ul style="list-style-type: none"> • Response to options (rotate order of viewing) • Table facilitator to explain each trade off • Initial thoughts on options: <ul style="list-style-type: none"> – Which they are initially most drawn to and why? – their initial thoughts on what they like/dislike – how their upfront considerations (i.e. how importance of price, importance of greenness, importance of Security of Supply, and thoughts on who would be responsible) fit with the various options – What they think of the fit/disconnect of their initial desires, and how they might spread across the options • Looking at each individually (ones not discussed already). <ul style="list-style-type: none"> – What stands out – Pros and cons of each – What they like or dislike – Why they favour/do not favour • Trade-offs <ul style="list-style-type: none"> – Looking at how the originally ranked cost, security and environmental friendliness – has this 	Handout 7 - Named options hand-outs Handout 8 – Green targets

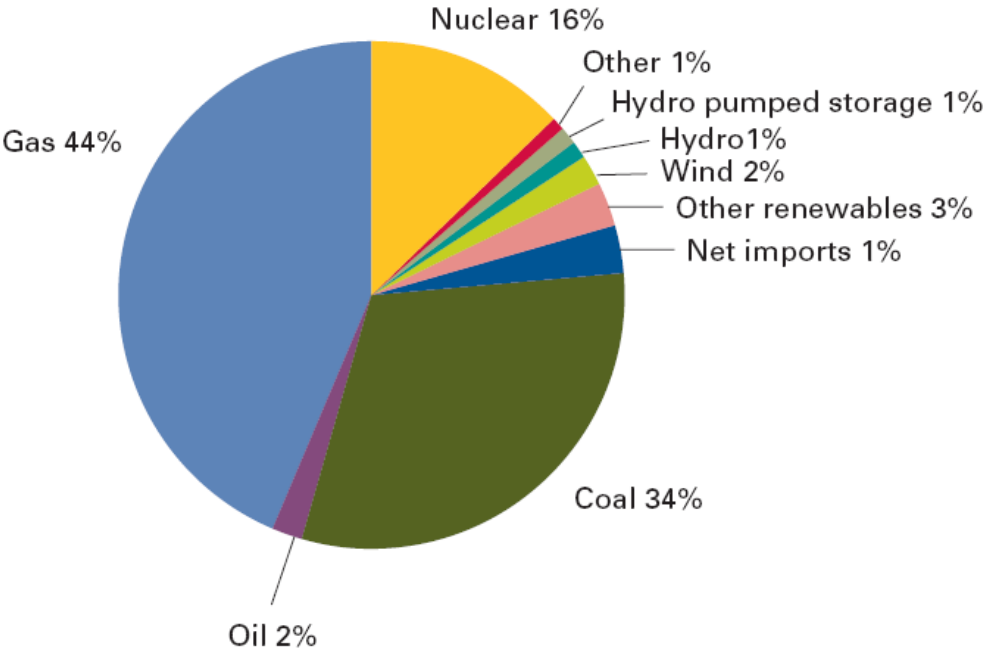
Timing	Item	Materials
	<p>changed now they see options</p> <ul style="list-style-type: none"> - Probe on price: what do higher price options mean for all customers or certain groups of customers? What do they think should be done about any effects on customers or certain groups of customers? What about vulnerable customers? • Thinking about the (Government Led) option – only probe if government option is low and cost is paramount: <ul style="list-style-type: none"> - Hypothetically, if the Government Led option was the same price or cheaper than any other option, does this alter preferences? Why / why not? How important is this? Is there a cut off point that is preferable? i.e. 10% increase compared to 50% - What are the most important considerations within a Government Led option? What are the barriers? • Deciding on the package for them individually and then consensus as a table <ul style="list-style-type: none"> - Which they would go for and why - How easy is it to decide? - Are any of them not liked? Why? <p>Plenary feedback</p> <ul style="list-style-type: none"> • Recomplete omnibus survey 	
20.35 – 20.55	<p>BREAKOUT GROUPS: 65 working day rule</p> <ul style="list-style-type: none"> • Panel to recall what they remember about last time they received price increase notification from supplier. How did they receive it? What was their reaction (other than price)? • Explain current rule - Energy companies are currently allowed a 65 working day period after changing prices in which to notify customers. Customers can switch to 	Handout 9 - laying out 65 day rule

Timing	Item	Materials
	<p>another supplier up to 20 working days after receiving this notification and not pay for any increase.</p> <ul style="list-style-type: none"> • Reaction to current rule • Split tables into suppliers and consumers <ul style="list-style-type: none"> – Pros and cons – from the consumer point of view – Pros and cons – from the supplier point of view – Feedback perspectives • Why they think the rule is the way it is? <ul style="list-style-type: none"> – Provide energy company arguments for rule –(65 days is the longest time allowed for notification – often it is shorter; cost of having to send an individual notification – combining with the bill saves money and paper; can stagger notification - mass notification would mean service centres being overwhelmed with calls (so extra cost of having more staff); customers can switch to avoid rise - cheaper for suppliers to use this method so customers save; customers will hear about price rises through media). – Reactions to these (particularly media aspect). Do these arguments make any difference to their points of view – How would they feel about getting information just through the media and not being notified individually? – What they think should be the rule (probe on acceptance of retrospective communication of price rises) • Test 10 working day idea (if not raised spontaneously) • Agree what they think is a minimum level of notice allowable (thoughts from a supplier and consumer perspective). 	<p>Handout 10 – Why do we need the 65 day rule?</p>

Timing	Item	Materials
20.55 – 21.00	IN PLENARY: Sum up, thanks and close – <i>Summing up presentations</i>	

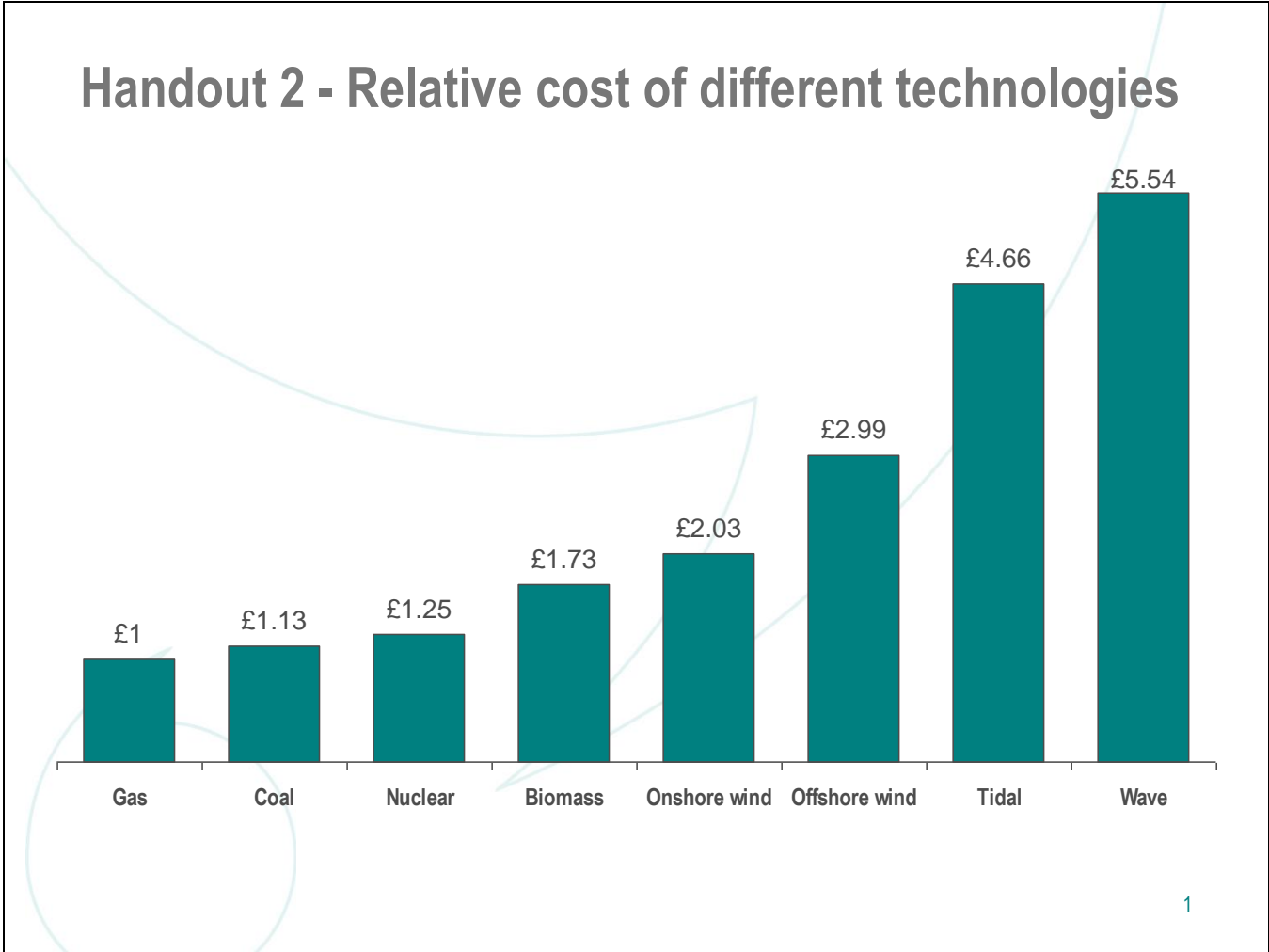
Handout 1 – Current sources of electricity

Handout 1 - Current sources of electricity



Source: DECC (Proportion of total electricity produced 2008)

Handout 2 – Relative cost graph

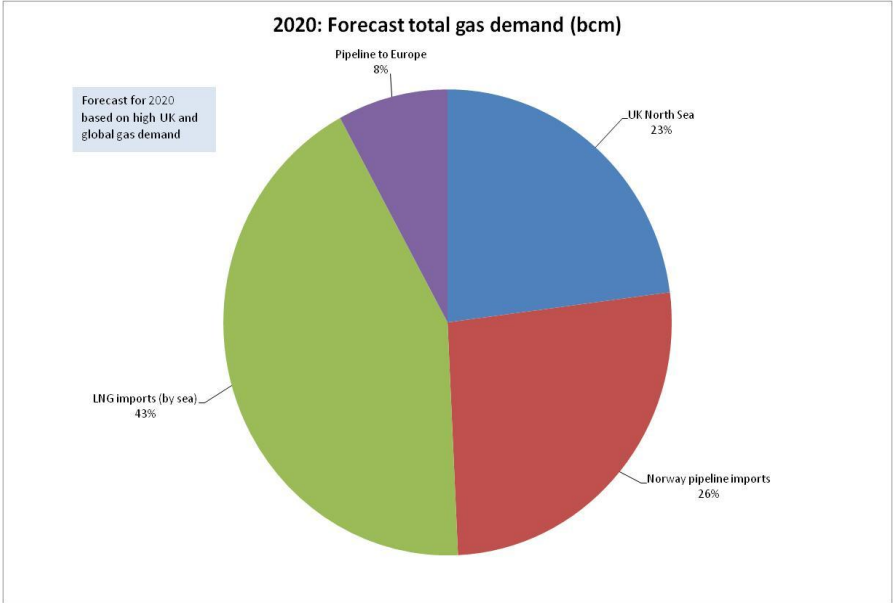
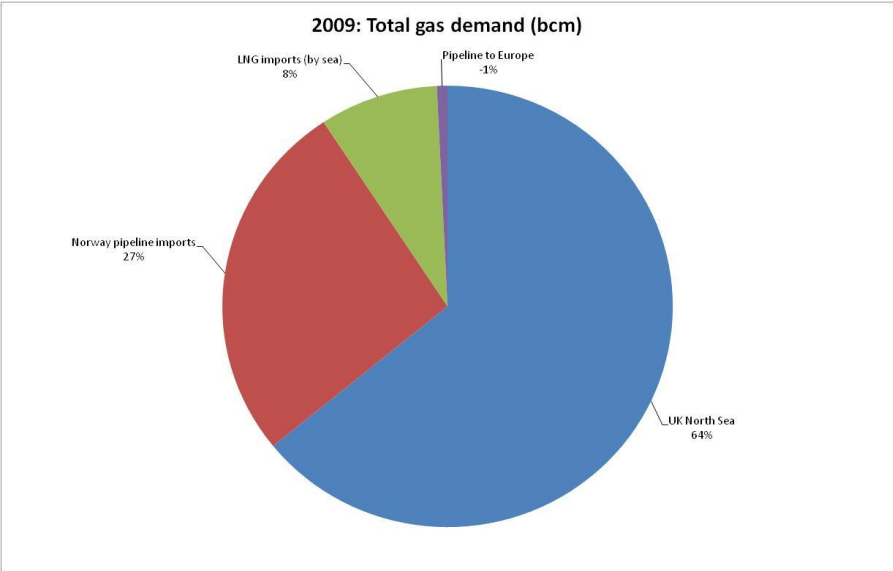


Handout 3 – World map exercise

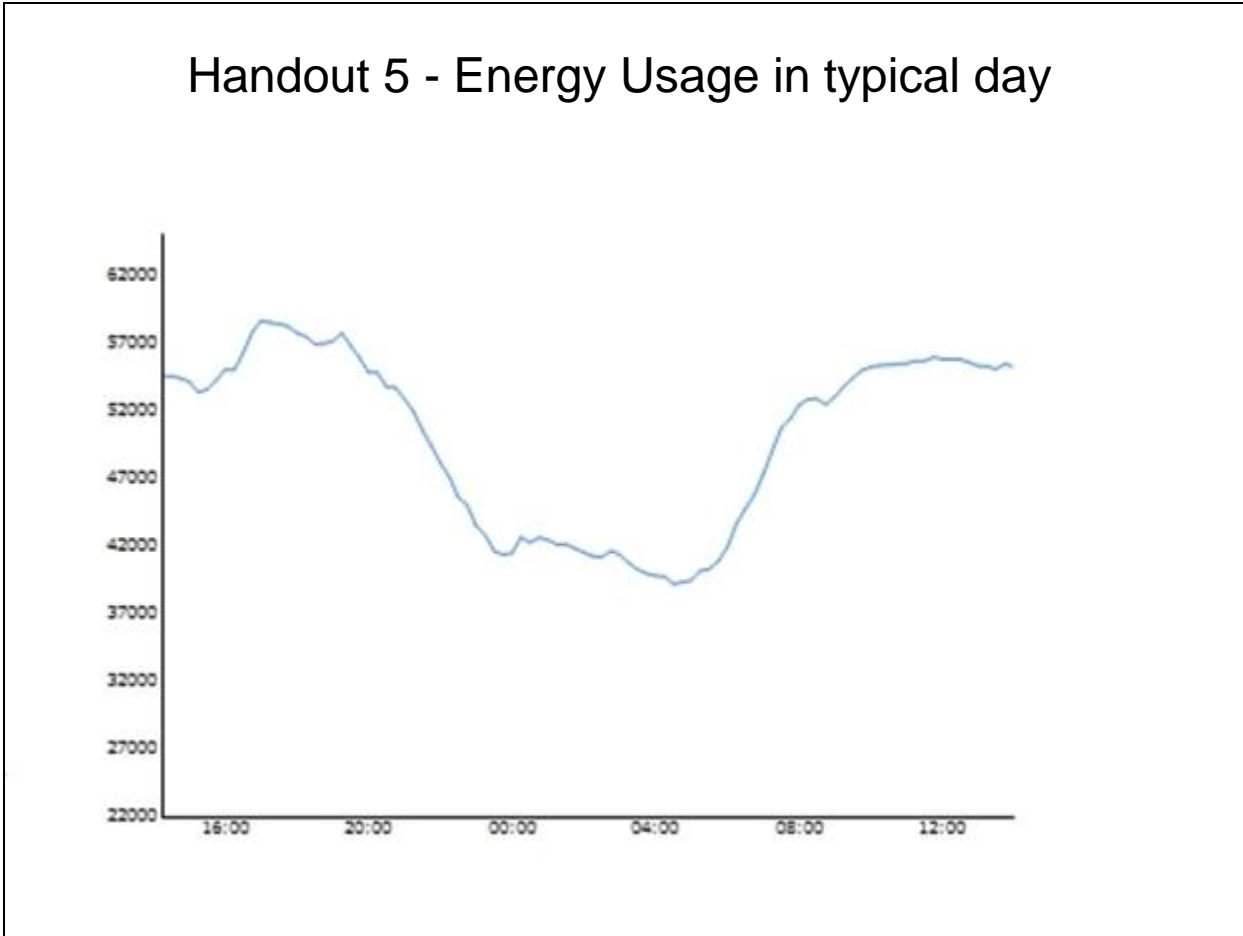


Handout 4 – Current and future sources of gas

Handout 4 - Current and future sources of gas



Handout 5 – Energy usage in a typical day chart

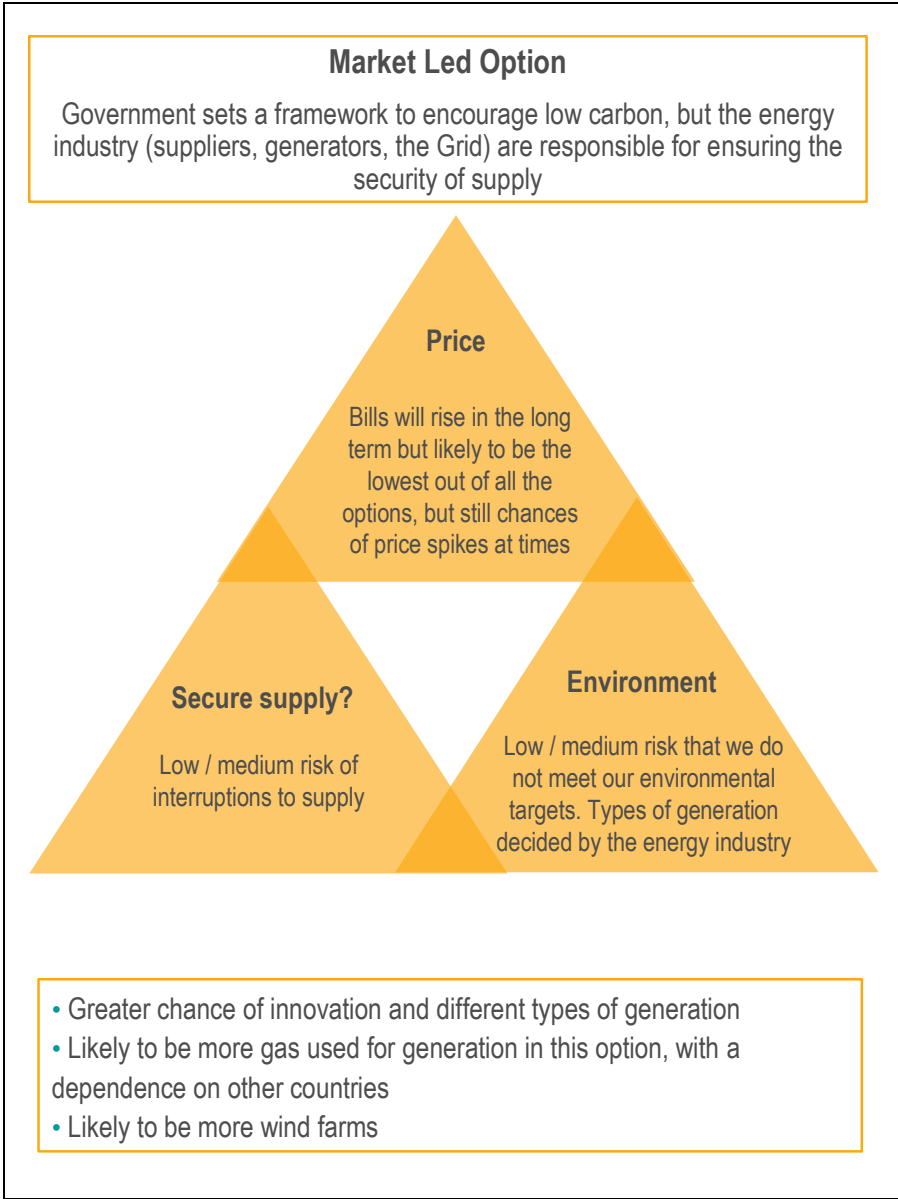


Handout 6 - What consumers may be asked to do in the future

- Consumers might be asked to use electrical equipment in different ways e.g.:
 - Use certain appliances after midnight e.g. dishwasher, washing machine
 - Use electric storage heaters instead of central heating
 - Heat water at different times of day
 - Cook at different times of the day
 - Install technology that would automatically switch off appliances (e.g. fridge, freezer etc), or heat water at different times of day, if electricity supplies are stressed
- They may also choose to have an interruptible supply but pay less money i.e. your energy company might cut your power at times when supplies are particularly stretch. They would have to give prior warning. You would accept the risk this might happen a up to certain number per year, for lower prices
 - Some very large businesses already use a similar scheme



Handout 7 – Options



Obligated Option

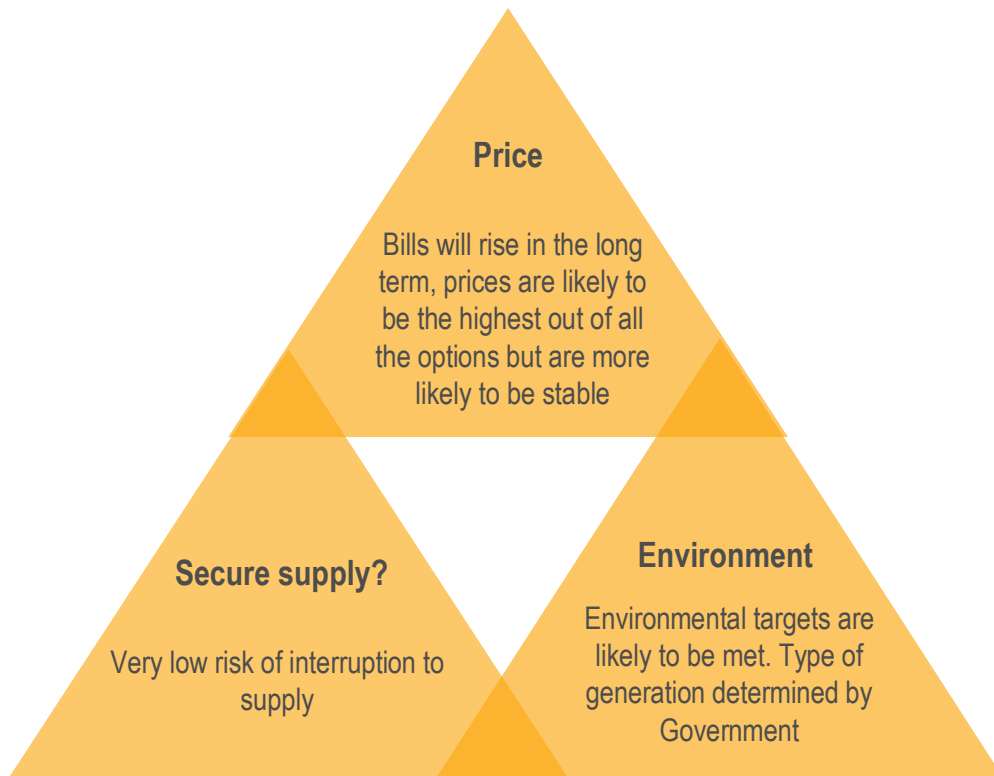
Government sets strict obligations on the suppliers and grid who must respond accordingly



- A mix of all generation types including renewable or nuclear
- Technologies used to capture emissions from power stations likely to be available
- Likely to be less gas

Government Led Option

Government is responsible for delivering security of supply

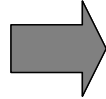


- Likely to be more nuclear power stations than all the other options, although still a mix of other renewable sources
- Likely to be less chance for innovation in different technologies.
- Likely to have least reliance of imported gas

Handout 8 - UK Green Targets



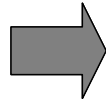
Carbon emissions
targets



- Legally binding targets included in the Climate Change Act 2008 to reduce carbon emissions **from 1990 levels** by:
 - 34% by 2020
 - 80% by 2050



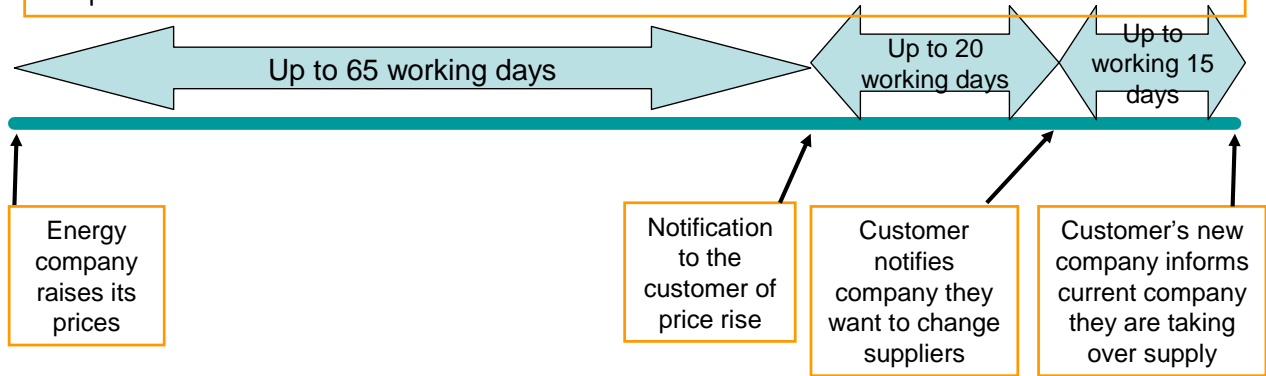
Renewables
targets



- The UK has signed up to the EU Renewable Energy Directive which commits us to increase the proportion of our energy produced from renewable sources to 15% (from just over 2% in 2008 – a seven-fold increase) by 2020

Handout 9 - The 65 working day rule

- When energy suppliers raise their prices, they are obliged to write to each of their customers to let them know.
- They have to do this in writing (or if you are on an online account via the internet).
- They have up to 65 working days after they put the price up to let you know they have done so. This allows them to send the notification about the price rise along with your bill if they want to, rather than sending it separately.
- When they write and tell you about the price increase, your supplier also has to let you know that you can switch to another supplier if you want and avoid the price increase.
- You have up to 20 working days to tell your supplier that you are going to switch to another supplier. If you do this they cannot back charge you for the increase- you will just pay the old price.



Handout 10 - Why we might need the 65 working day rule

- 65 working days is the longest time allowed for notification, although it is often shorter. The reasons for this time include:
 - The cost of sending individual notifications to customers is high and this cost is likely to be passed on to the customer. Combining with customer bills therefore not only save money but also paper
 - Mass notification would mean service centres being overwhelmed with calls, so extra cost of having more staff
 - It is cheaper for suppliers to use this method which means costs are not passed on to customers
- Also customers have a 20 working day period in which they can switch to avoid the rise
- Customers are also likely to hear about price changes through media before they receive notification with their bills



Start of workshop omnibus survey

Ofgem Consumer Panel 2009-10

Omnibus survey

Start of workshop

We would be grateful if you could help us by completing this questionnaire so that we can find out your views before the start of the workshop.

LOCATION OF WORKSHOP	
DATE OF WORKSHOP	

1. Do you have mains gas and/or mains electricity in your home?

Mains gas	
Mains electricity	
Neither/Don't know/Refused	

2. Which company currently supplies the following?

Gas	
-----	--

Electricity	
-------------	--

3. The electricity used in your home comes from a number of different sources. On a scale of 1-5, where 5 means a very strong preference and 1 means a very weak preference, please indicate your preference for each of the following sources?

PLEASE TICK ONE BOX ON EACH LINE	1	2	3	4	5	Don't know
Coal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wind farms on the land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wind farms off the coast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nuclear Power	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Large scale Solar power (rather than solar panels on your own home)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biomass (generation from biological sources, for example algae, wood or special energy crops)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tidal power (electricity produced by the movement of tides e.g. a barrage across a river estuary)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydro power (electricity produced by the force of moving water e.g. water turbines in rivers)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wave power (electricity produced by the constant movement of waves)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. Which one of these factors do you consider to be the most important in relation to gas and electricity overall? Which one do you consider to be the second most important?

PLEASE TICK ONE BOX ON EACH COLUMN	Most important	Second most important
The price you pay	<input type="checkbox"/>	<input type="checkbox"/>
Being able to save costs by being energy efficient	<input type="checkbox"/>	<input type="checkbox"/>
Being able to help the environment through energy efficiency and reducing emissions	<input type="checkbox"/>	<input type="checkbox"/>
Great Britain being able to provide all the gas and electricity people want to use	<input type="checkbox"/>	<input type="checkbox"/>
Having gas and electricity that is affordable for everyone (for example consumers who may be considered vulnerable such as the elderly, sick or disabled)	<input type="checkbox"/>	<input type="checkbox"/>
Don't know	<input type="checkbox"/>	<input type="checkbox"/>

5. As North Sea gas supplies start to run out, Britain will need to buy more gas from other countries. How concerned are you, if at all, that more gas will be coming from abroad in the next 10-15 years?

Very concerned	Fairly concerned	Neither concerned or not concerned	Not very concerned	Not at all concerned	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. Nearly half of Britain's electricity is generated from gas and most homes have gas central heating. How concerned are you, if at all, that Britain might run out of gas in the next 10-15 years?

Very concerned	Fairly concerned	Neither concerned or not concerned	Not very concerned	Not at all concerned	Don't know
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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7. Who do you think is in charge of making sure Britain has:

- a) sufficient gas supplies?**
- b) sufficient electricity supplies**

PLEASE TICK ONE BOX ON EACH COLUMN	Sufficient gas supplies	Sufficient electricity supplies
The government	<input type="checkbox"/>	<input type="checkbox"/>
Ofgem (the gas and electricity markets regulator)	<input type="checkbox"/>	<input type="checkbox"/>
Energy suppliers (the companies that sell gas or electricity to customers)	<input type="checkbox"/>	<input type="checkbox"/>
Generators (the companies responsible for the production of electricity)	<input type="checkbox"/>	<input type="checkbox"/>
National Grid (the company that manages the high pressure gas pipelines and high voltage electricity cables at a national level)	<input type="checkbox"/>	<input type="checkbox"/>
Gas and electricity network companies (the companies that manage pipes and cables systems at a local level)	<input type="checkbox"/>	<input type="checkbox"/>
Someone else (Please write in boxes)		
Don't know	<input type="checkbox"/>	<input type="checkbox"/>

8. If the cost of gas and electricity varied, for example if it was cheaper at certain times of day, how likely would you be to... READ OUT

PLEASE TICK ONE BOX ON EACH LINE	Very likely	Fairly likely	Neither likely nor unlikely	Fairly unlikely	Very unlikely	Don't know

Use certain appliances (such as washing machine or dishwashers) after midnight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use electric storage heaters (that charge up overnight to release heat during the day)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heat your water at different times during the day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carry out household chores or cook meals during cheaper periods (for example after 7pm)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Install technology that would automatically switch off appliances for you when prices were high	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you. Please pass back to your table host

Ofgem Consumer Panel 2009-10

Omnibus survey

End of workshop

We would be grateful if you could help us by completing this questionnaire so that we can find out your views before the start of the workshop.

LOCATION OF WORKSHOP	
DATE OF WORKSHOP	

3. The electricity used in your home comes from a number of different sources. On a scale of 1-5, where 5 means a very strong preference and 1 means a very weak preference, please indicate your preference for each of the following sources?

PLEASE TICK ONE BOX ON EACH LINE	1	2	3	4	5	Don't know
Coal	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wind farms on the land	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Wind farms off the coast	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Nuclear Power	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Large scale Solar power (rather	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

than solar panels on your own home)

Biomass (generation from biological sources, for example algae, wood or special energy crops)

Tidal power (electricity produced by the movement of tides e.g. a barrage across a river estuary)

Hydro power (electricity produced by the force of moving water e.g. water turbines in rivers)

Wave power (electricity produced by the constant movement of waves)

4. Which one of these factors do you consider to be the most important in relation to gas and electricity overall? Which one do you consider to be the second most important?

PLEASE TICK ONE BOX ON EACH COLUMN	Most important	Second most important
The price you pay	<input type="checkbox"/>	<input type="checkbox"/>
Being able to save costs by being energy efficient	<input type="checkbox"/>	<input type="checkbox"/>
Being able to help the environment through energy efficiency and reducing emissions	<input type="checkbox"/>	<input type="checkbox"/>
Great Britain being able to provide all the gas and electricity people want to use	<input type="checkbox"/>	<input type="checkbox"/>
Having gas and electricity that is affordable for everyone (for example consumers who may be considered vulnerable such as the elderly, sick or disabled)	<input type="checkbox"/>	<input type="checkbox"/>

Don't know

5. As North Sea gas supplies start to run out, Britain will need to buy more gas from other countries. How concerned are you, if at all, that more gas will be coming from abroad in the next 10-15 years?

Very concerned

Fairly concerned

Neither concerned or not concerned

Not very concerned

Not at all concerned

Don't know

7. Nearly half of Britain's electricity is generated from gas and most homes have gas central heating. How concerned are you, if at all, that Britain might run out of gas in the next 10-15 years?

Very concerned

Fairly concerned

Neither concerned or not concerned

Not very concerned

Not at all concerned

Don't know

8. Who do you think is in charge of making sure Britain has:

a) sufficient gas supplies?

b) sufficient electricity supplies

PLEASE TICK ONE BOX ON EACH COLUMN

Sufficient gas supplies

Sufficient electricity supplies

The government

Ofgem (the gas and electricity markets regulator)

Energy suppliers (the companies that sell gas or electricity to customers)

Generators (the companies responsible for the production of electricity)	<input type="checkbox"/>	<input type="checkbox"/>
National Grid (the company that manages the high pressure gas pipelines and high voltage electricity cables at a national level)	<input type="checkbox"/>	<input type="checkbox"/>
Gas and electricity network companies (the companies that manage pipes and cables systems at a local level)	<input type="checkbox"/>	<input type="checkbox"/>
Someone else (Please write in boxes)		
Don't know	<input type="checkbox"/>	<input type="checkbox"/>

8. If the cost of gas and electricity varied, for example if it was cheaper at certain times of day, how likely would you be to... READ OUT

PLEASE TICK ONE BOX ON EACH LINE	Very likely	Fairly likely	Neither likely nor unlikely	Fairly unlikely	Very unlikely	Don't know
Use certain appliances (such as washing machine or dishwashers) after midnight	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Use electric storage heaters (that charge up overnight to release heat during the day)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Heat your water at different times during the day	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Carry out household chores or cook meals during cheaper periods (for example after 7pm)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Install technology that would automatically switch off appliances for you when prices were high	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Thank you. Please pass back to your table host

End of workshop questionnaire

Ofgem Consumer Panel 2009-10

Post-Workshop Questionnaire

We would like your help to evaluate the Ofgem Consumer Panel event you have attended. We would be grateful if you could help us by completing this questionnaire so that we can find out your views.

LOCATION OF WORKSHOP	
DATE OF WORKSHOP	

Q1. Based on your experience, please indicate whether you **Strongly Agree, Agree, Disagree, Strongly Disagree or Neither Agree or Disagree** with each of the following statements (by placing a tick in the relevant box)

PLEASE TICK ONE BOX ON EACH LINE	Strongly Agree	Agree	Neither agree or Disagree	Disagree	Strongly Disagree	Don't know
a. I enjoyed taking part in the event	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. There was not enough time to fully discuss the issues properly	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. The event was well organised and structured	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. The information that was given to me was fair and balanced	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- e. The event was run in an unbiased way
- f. I think events like this are a good way of consulting the public about services
- g. I have learned a lot from today's event
- h. I understand how the results of the workshop will be used
- i. I think the Panel is a good way for Ofgem to get feedback from energy consumers

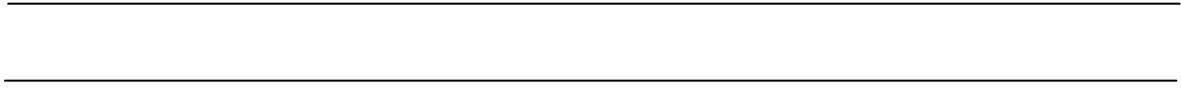
Q2. How would you describe the event you have just taken part in? Please tick all that apply

- | | | | |
|----------------|--------------------------|----------------|--------------------------|
| a) Interesting | <input type="checkbox"/> | e) Boring | <input type="checkbox"/> |
| b) Enjoyable | <input type="checkbox"/> | f) Confusing | <input type="checkbox"/> |
| c) Easy | <input type="checkbox"/> | g) Informative | <input type="checkbox"/> |
| d) Important | <input type="checkbox"/> | h) Hard work | <input type="checkbox"/> |

Q3. What was the best thing about the workshop?

Q4. What would you have improved about the workshop?

Q5. Do you have any additional comments?



Thank you. Please pass back to your table host