

npower Business Energy Index Summer 2006





Dear Reader,

The last six months has witnessed growing economic, environmental and societal factors that are conspiring to keep energy at the forefront of commercial energy users' minds. Unprecedented wholesale prices, measures to combat climate change and stakeholder pressure to become better corporate citizens are continuing to challenge UK businesses.

To understand how companies are coping with these demands, and to gauge opinions towards energy and the current situation we have commissioned our third piece of biannual independent market research.

The third npower Business Energy Index report tracks the impact of volatility in the wholesale energy markets over the last six months, as well as looking again at the views held towards public policy and action taken to address energy efficiency.

Against the backdrop of the Government's Energy Review, the Special Topic for this report is gas issues in the UK as a fuel for electricity generation.

The main findings of the report show how continued volatility in UK wholesale energy costs, fuelled by global fossil fuel prices, is continuing to impact on businesses of all sizes. This has led companies to rate the importance of energy efficiency higher than ever, however, it would appear that companies are looking to the solutions that require less investment and resources, citing economic reasons as a major barrier to further improvements.

In terms of policy, there is evidence to suggest that some official schemes are not realising their full potential, due to lack of awareness or understanding amongst commercial energy users. Looking to the future, respondents are increasing uncertain about energy costs over the next few years, with many now predicting substantial increases. There are also concerns as to whether the UK's future electricity needs should be dependent on gas fired generation,



with a balanced generation portfolio seen as the most viable solution.

The survey is sponsored by npower and in executing the research we are grateful for the continued support and involvement of the Major Energy Users' Council (MEUC) and the Federation of Small Businesses (FSB).

The survey was designed and conducted by Moffatt Associates, an independent research and marketing consultancy based in London.

It is our intention that the research findings and commentary will provide a valuable contribution to the debate on market developments and the future of energy policy in the UK.

Yours sincerely,

Gordon Parsons
Managing Director, npower business.

Research Objectives

The npower Business Energy Index sets out to identify and monitor trends in, and expectations about, key energy issues. The Index is a twice yearly barometer of issues affecting the business user marketplace.

Specifically it will:

- review energy costs, their components and their impact on customers;
- measure and monitor the incidence and efficacy of measures to increase energy efficiency;
- explore business attitudes and opinions to current and future public energy policy.

Each survey canvasses opinion on a special topic. In this report the special topic is gas in the UK energy mix.

Research Sample

Telephone interviews were conducted with a representative sample of 100 organisations, comprising 30 small to medium-sized enterprises with significant energy usage and 70 major energy users. In the majority of cases the respondent was an energy buyer or a senior figure with responsibility for energy purchasing. The series of questions provided both comparable quantitative data and qualitative opinion and attitudes on energy user issues within the four main sections of the Report.

Policy-makers and influencers profile

In addition to business users the following organisations were interviewed to canvass views on various aspects of the special topic, gas in the UK energy mix:

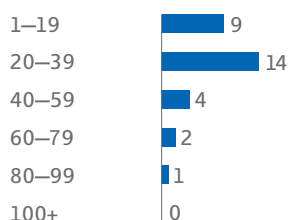
- Confederation of British Industry (CBI)
- Cornwall Energy Associates
- Energy Systems Trade Association (ESTA)
- Institute of Public Policy Research (IPPR)
- OFGEM

Small and medium-sized enterprises profile

Number of companies by sector

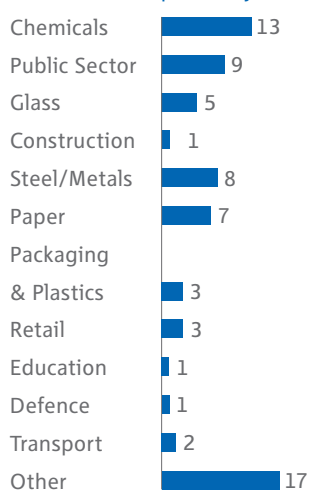


Employees

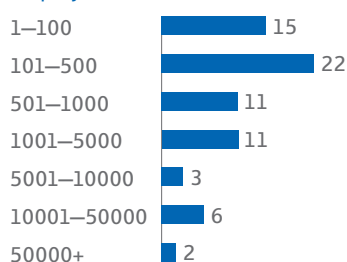


Major energy users profile

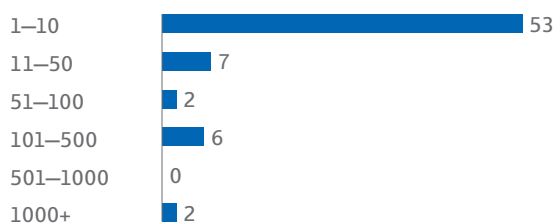
Number of companies by sector



Employees



Sites



Research Highlights

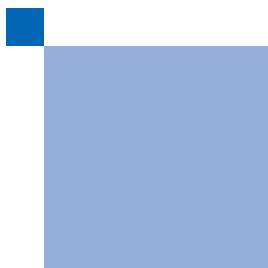
Energy costs still rising and expected to rise further...

- Fewer SMEs and MEUs are reporting an increase in their energy costs over the last 6 months. Whilst most companies (60%) are still experiencing increases, the proportion has fallen, down from 52% of SMEs to 40%, and down from 73% of MEUs to 69%. Despite high profile press coverage of increased energy costs, one in three SMEs were unable to say whether their energy costs had risen, fallen, or stayed the same.
- Amongst those companies reporting an increase in energy costs, the size of that increase grew. In the first survey (Summer 2005) the average rise was 20%, a figure that grew to 26% for Winter 2005 and which now stands at 46%. Fossil fuel price movements continue to be regarded as the main driver behind the rise in energy costs.
- These rising energy costs continue to adversely impact companies, with 77% of SMEs and 71% of MEUs reporting lower profits as a result. Companies are also increasing the prices they charge to customers, and are worried about the loss of competitiveness, due to higher energy prices. However, compared with the previous survey 6 months ago, fewer companies are reporting lower profits (down from 79% to 73% of companies) or lower competitiveness (down from 47% to 39% of companies).

- Looking at the next 6 months, MEUs continue to be slightly more certain than SMEs that energy costs will increase (47% of MEUs predict this eventuality, compared to 43% of SMEs). Amongst those predicting continued increases, SMEs predicted a smaller rise (on average, 17%) than MEUs (on average, 29%) over this period.
- Both large and small companies are predicting medium-term (3-year) energy costs to rise significantly. In the last survey, the average prediction was for prices to rise by 5.2% over three years but the increase is now expected to be in the region of 22%. SMEs anticipate higher increases over the next three years than do MEUs.

...making energy efficiency an even greater priority...

- Energy efficiency continues to be a significant issue against this backdrop of sustained energy cost increases, and the significance given to energy efficiency has increased (from 7.2 to 7.6 out of 10) since Winter 2005.
- As a response, 76% of companies have taken one or more steps to increase their energy efficiency during the last 6 months. MEUs continue to be more likely to take such measures – 83% of MEUs have responded in this way, compared to 60% of SMEs. The most popular actions taken to improve efficiency were changing heating/lighting, and requesting detailed information in this area.



- 13% of SMEs and 17% of MEUs have changed supply in the last 6 months in an attempt to reduce energy costs; but 24% of companies say they have taken no steps at all during this period. Of a range of factors deemed obstructive to energy efficiency, economic barriers were considered most important, followed by technical barriers.

- 82% of companies – 97% of MEUs but just 47% of SMEs – reported being involved in or covered by an official energy scheme, such as the EU ETS, Climate Change Levy, etc. The scheme that SMEs are most likely to be involved in was the CCL (43% participated), and MEUs were also heavily involved with CCL (with 96% participating). Approximately one in four companies also participated in the EU Emissions Trading Scheme.

- Both SMEs (80%) and MEUs (89%) agree that the Government could do more to help energy efficiency, specifically by encouraging technical innovation. MEUs in particular also wanted the Government to provide more information, or better quality information, on this subject (73%, up from 49% in Winter 2005).

...with general concerns about UK dependency on gas imports, but differing views on how best to reduce this dependency.

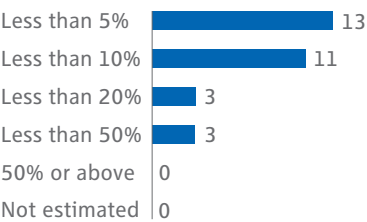
- There is strong concern about the UK's increased dependence on gas imports, with 89% of companies alarmed at this prospect. This was true both for MEUs and for SMEs, although more so for MEUs (96% said they were concerned) than for SMEs (73%).
- A gas market share in power generation of more than 60% was considered too high by most companies – while 43% of SMEs thought this to be the case, a very significant 90% of MEUs thought 60% too great.
- In terms of future investment in UK energy generation, SMEs and MEUs were narrowly divided, with SMEs claiming wind and other renewables should be the highest priority, and MEUs backing nuclear.
- In citing the reasons behind recent rises in gas prices, SMEs and MEUs differed in their explanation: SMEs regarded changes in oil prices as the most significant reason, while MEUs tended to put more blame on inefficient energy markets.

Section 1: Energy Costs

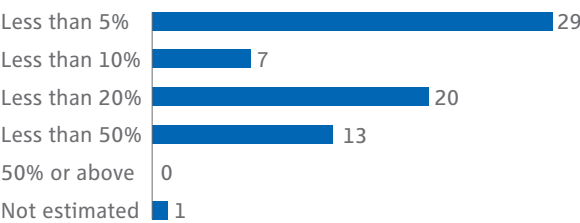
In the third npower Business Energy Index respondents were asked a range of questions relating to energy costs which have been benchmarked against results from the first and second nBEI surveys.

1.1 Energy costs as a share of total operating costs

SMEs

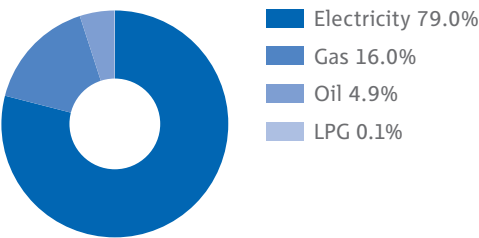


MEUs

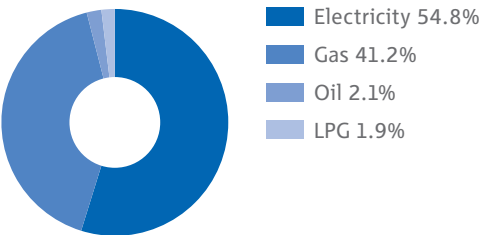


1.2 Components of Company Energy Costs

SMEs



MEUs



How has your business been affected by recent changes in energy costs?

Selected comments

SMEs

'We closed down parts of our production, leading to reduction in technology, equipment and decreased operations.'

'We plan to change the gas-fired industrial oven to an electric oven; in terms of production process we refined the processes of working with sheet metal to reduce costs and avoid wastage.'

'Despite the rising energy costs we are not able to up prices... it becomes increasingly important to think about better technology to save energy; in terms of production process we have no latitude for change.'

MEUs

'Fixed price contracts have saved us; lack of energy supplies sometimes affects possible delivery dates so we sometimes lose contracts; next year new equipment will be installed to reduce energy costs by 14%; costs have been passed on to customers.'

'Not been able to pass on increased costs! Changed operations in that we have shut down gas turbines on our CHP unit on days when gas prices have been crazy and purchased power from the grid.'

'Competitiveness: especially when competing with China – they have lower costs e.g. no environmental costs. Consider different ways of manufacturing and amount of energy used to compensate for increased energy costs.'

1.3 Estimated increase or decrease in company energy costs over the last 6 months (%)

	SMEs 2	SMEs 3	MEUs 2	MEUs 3	All 2	All 3
Increased	51.7	40	72.9	68.6	66.7	60
Same	27.6	26.7	24.3	27.1	25.3	27
Decreased	0	0	1.4	1.4	1	1
Don't know	20.7	33.3	1.4	2.9	7.1	12

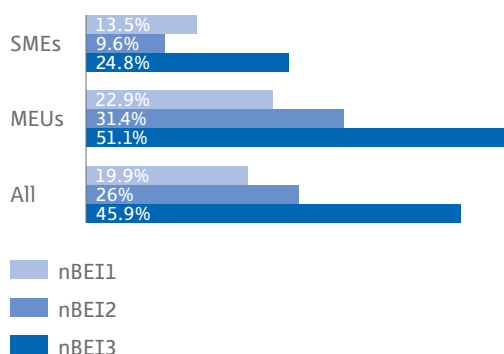
1 = nBEI Summer 2005

2 = nBEI Winter 2005

3 = nBEI Summer 2006

- The number of companies reporting that their 6-monthly energy costs increased has fallen from 67% of companies in the sample, to 60%.
- MEUs were much more likely to report increased energy costs (69%) than SMEs (40%).
- Despite recent press coverage and publicity over energy price increases, one in three SMEs were unable to say whether their energy costs had risen, fallen, or stayed the same.

1.4 Average increase in energy costs – last 6 months



- Note: this is not the average increase across all companies. It is only the average for those companies reporting an increase.
- Thus, 60% of companies (see above), reported an increase. The average increase for these companies was 45.9% over 6 months.
- For those companies reporting increases (perhaps contracts up for renewal/renegotiation), the increases were very significant: 25% for SMEs, and 51% for MEUs.

By how much do you expect your energy costs to increase or decrease over (a) the next 6 months, and (b) the next 3 years?

Selected comments

SMEs

'I estimate that costs will go up more than 80% in the next 3 years, however I fear that it is possible that they could double.'

'We are hoping to cap energy costs by entering into an energy supply contract.'

'We are currently negotiating with a supplier to enter a contract that may run to 2010 to fix energy prices; oil prices will rise according to the market.'

MEUs

'Electricity fixed for 3 years from October; gas by at least 5% over 6 months and maybe another 20-25% over 3 years.'

'Premium this winter – price will increase until new infrastructure in place in Winter of 2007 (e.g. new pipes from Norway) – even then will we get the gas. May settle after 2/3 years.'

'Gas is fixed for 18 months but we're expecting 30% on electricity in October.'

1.5 Perceived significance of selected cost drivers in the last 6 months

(Scale 1-10, where 10 is most significant)

	SMEs 2	SMEs 3	MEUs 2	MEUs 3	All 2	All 3
Fossil fuel price movements	5.4	7.4	8.2	8	7.2	7.8
Power/gas supplier charges	5.1	7.2	3.4	4.6	4	5.3
Environmental obligations	4.6	6.2	5.9	5.4	5.4	5.6
Other government policies	4	5.2	5	5.2	4.6	5.2
Seasonal fluctuations	3.2	4.9	3.5	5.5	3.5	5.3

- Participants are asked what the 'underlying causes' of these price changes are. MEUs are very clear, it is down to fossil fuel price movements (an average rating of 8/10).
- SMEs agree that fossil fuel price movements are the main cause (7.4/10) but blame is also apportioned to power/gas suppliers (7.2/10).
- Overall, each of the five selected cost drivers was thought to have increased in significance since the previous nBEI.

1.6 Perceived impact of rising energy costs (%)

	SMEs 2	SMEs 3	MEUs 2	MEUs 3	All 2	All 3
Lower profits	76.7	76.7	79.6	71.4	78.6	73
Lower competitiveness	13.8	30	65.4	42.9	46.9	39
Increases in output prices	16.7	43.3	32.4	55.7	27.6	52
Changed equipment	6.7	6.7	36.8	44.3	27.6	33
Fewer operations	3.3	16.7	26.5	41.4	19.4	34
Changed process	3.3	13.3	27.1	32.9	19.1	27

- Rising energy costs have impacted how companies do business. The chief complaint, made by nearly three-quarters of companies (73%) was lower profitability.
- 52% had increased the prices of their goods as a result of rising energy costs.
- MEUs were much more likely than SMEs to change their processes and equipment as a response.

1.7 Expected increase or decrease in company energy costs over the next 6 months

	SMEs 2	SMEs 3	MEUs 2	MEUs 3	All 2	All 3
Overall prediction (%)	4.4	8.7	19.3	14.5	15.7	12.9
Predicting increase	12	13	37	33	49	46
Average increase (%)	7.7	17.3	34	29.3	27.6	25.9
Predicting no change	9	8	26	23	35	31
Predicting decrease	0	2	2	6	2	8
Average decrease (%)	0	12.5	1	11.3	1	11.6
Don't know	9	7	5	8	14	15

- In terms of forecast energy costs, the overall average expectation was that prices would rise by 13% over the next 6 months (compared to a forecast 16% last time).
- SMEs were as likely as MEUs to predict further price increases, but were less pessimistic over the size of increase: the average SME prediction was 17% versus 29% for MEUs.
- A significant minority of companies (31%) predicted no change in their company's energy costs over the next 6 months (possibly due to long-term contracts).

1.8 Expected increase or decrease in company energy costs over the next 3 years

	SMEs 2	SMEs 3	MEUs 2	MEUs 3	All 2	All 3
Overall prediction (%)	9.4	32.6	4.2	16.5	5.2	22.3
Predicting increase	11	14	13	17	24	31
Average increase (%)	12.8	49.4	18.9	38.1	16.1	43.2
Predicting no change	4	4	45	12	49	16
Predicting decrease	0	2	1	6	1	8
Average decrease (%)	0	20	0	12.1	0	14.1
Don't know	15	10	11	35	26	45

- In a significant shift since the last survey, medium-term company energy costs are predicted, on average, to increase by 22% – compared to a previous estimate of 5%.
- In the previous survey, almost half of companies (49%) predicted little net change in energy costs over the next 3 years, i.e. any further increases would be only temporary. Now, only 16% of companies are predicting no change.
- SMEs were much more likely to expect increases (47% of SMEs) than MEUs (24%).

Viewpoint

Research for the third npower Business Energy Index shows that energy costs remain a concern for UK businesses. The majority of respondents (60%) have experienced an increase in costs over the last six months, a pattern now seen in three consecutive reports. This is slightly lower than reported in the previous survey (67%) but notably the average reported increase has risen from 26% to 45.9%.

These findings are perhaps not that surprising as supply and demand issues continue to dominate the energy agenda, causing unprecedented wholesale prices and price volatility.

Many of the supply issues highlighted in previous reports, such as the shift from the UK being an energy self-sufficient nation to an energy dependent one, remain prevalent. In addition, demand issues such as the burgeoning economies of the Far East are also contributing to the impact on global wholesale energy costs.

As illustrated in the graph on the next page, these factors have combined to increase fossil fuel and electricity prices. The correlation between global fossil fuel and power prices is well established, but growing environmental factors must also be considered, as the price of carbon becomes an inherent part of energy costs in today's marketplace.

In the third npower Business Energy Index, respondents continue to identify fossil fuel price movements as the foremost driver of their energy costs, followed by environmental obligations.

For the majority of companies (73%) rising energy costs are continuing to have a negative impact on profitability. In seeking to minimise the impact companies are responding in different ways. Depending on their competitive position some companies are able to pass on some or all increased costs in the form of higher prices.

Some companies find this more difficult and are changing their operations and processes to reduce energy consumption and their exposure to the problem.

When asked to make predictions, the outlook for the short term remains similar to previous reports; an average increase of 12.9% compared to 15.7% in the last survey. However, the current climate appears to be causing greater uncertainty over the longer term than previously witnessed. Results showed companies are now expecting a rise in energy costs averaging of 22% over the next three years, compared to 5% in the previous report.

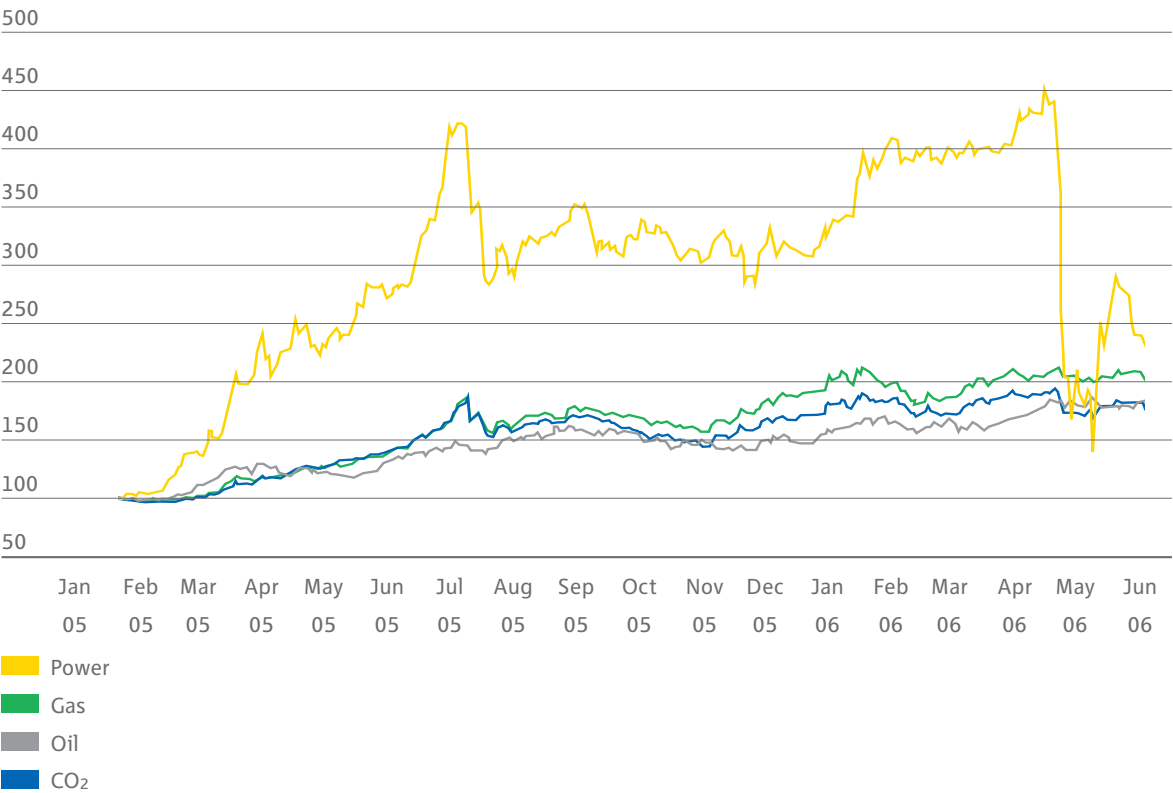
Since the npower Business Energy Index began 18 months ago, there has been a step-change in fundamental energy costs for UK and Europe. Over the short-term this situation is unlikely to change - as reflected in the results - as the underlying factors behind the increase remain dominant. In the medium term, there are initiatives underway such as improvements to UK gas supply infrastructure that should offer some respite. Yet, as reflected in the findings, events of the last six months including global political unrest and issues surrounding UK gas infrastructure, have raised concerns and nervousness as to the long-term outlook for UK energy supplies.



The review of UK Energy Policy aims to address these concerns and the Government’s triple objectives of ensuring security of supply, reducing carbon emissions and providing affordable energy. These goals and the ability of competitive markets to deliver them are widely accepted, but it is also well understood that they pose the challenge of reconciling conflicting goals.

Overall, it is clear that mitigation of energy costs has therefore become a business priority. From this, energy efficiency and the move to low carbon ‘operations’ are emerging as new business disciplines.

Energy trends compared
Index: 24 Jan 2005 = 100



Source: RWE Trading



Section 2: Energy Efficiency

Respondents were asked to rate energy efficiency in terms of its importance to their business, and their own performance in implementing energy efficiency measures. The research also sought to identify barriers to optimal implementation of energy efficiency measures, and possible facilitators. The results are displayed against those from the first two nBEI surveys.

2.1 Significance attached to energy efficiency

(Scale 1-10, where 10 is most significant)

	SMEs 2	SMEs 3	MEUs 2	MEUs 3	All 2	All 3
Average	5.7	6	7.8	8.2	7.2	7.6
Minimum	1	3	2	3	1	3
Maximum	8	10	10	10	10	10

- With many companies facing increased energy costs, it is not surprising that energy efficiency continues to be seen as a highly significant issue, both by SMEs and MEUs.
- This significance is actually increasing, from 7.2/10 last time to 7.6 in this survey.
- MEUs attribute more significance to energy efficiency than do SMEs (8.2 versus 6.0).

What steps has your company taken in the last 6 months to improve energy efficiency?

Selected comments

SMEs

'Looking into alternative sources for our company, such as wind and solar.'

'Entered a contract with an energy supplier to fix electricity prices.'

'Changing energy supplier is not an option since they all charge similar prices.'

MEUs

'Moved from fixed to flexible contract; under CCL we are constantly looking at savings; we utilise heat recovery and tweak as much as we can; use timber in the mill and in Winter we don't chip in order to save energy.'

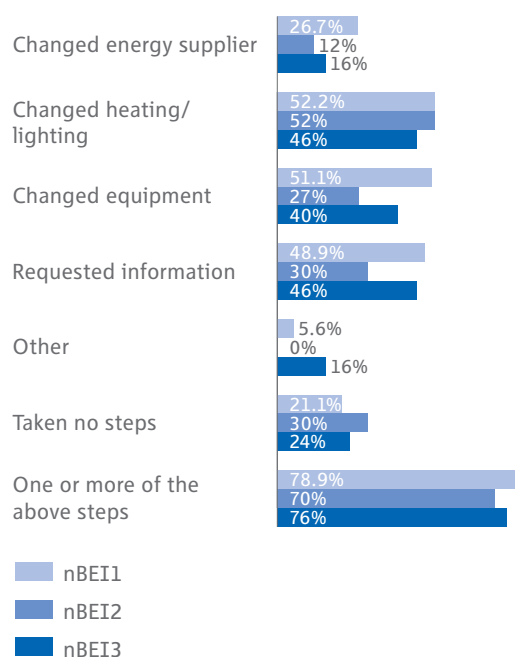
'Carbon Trust are bright young people but we have more experience than them – their access to funding is very, very disappointing.'

'We have looked at a number of energy conservation items but to be honest they're overpriced. We have done some changes to process.'

2.2 Steps taken, by %, to increase efficiency – last 6 months

	SMEs 2	SMEs 3	MEUs 2	MEUs 3	All 2	All 3
Changed energy supplier	7	4	5	12	12	16
Changed heating/lighting	6	10	46	36	52	46
Changed equipment	3	8	24	32	27	40
Requested information	6	3	24	43	30	46
Other	0	4	0	12	0	16
Taken no steps	15	12	15	12	30	24
One or more of the steps above	15	18	55	58	70	76

- The majority of companies have, in the last 6 months, taken steps to increase energy efficiency.
- This proportion (76% of companies) has increased slightly since the previous survey (70%).
- MEUs continue to be more likely to take any of these steps to increase energy efficiency (83% of MEUs have taken one or more steps) than SMEs (60% of SMEs).



2.3 Significance of barriers to achieving greater energy efficiency

(scale 1–10 where 10 = most significant)

	SMEs 2	SMEs 3	MEUs 2	MEUs 3	All 2	All 3
Behavioural/cultural	3.9	4.7	4.6	4.9	4.4	4.8
Organisational/structural	3.6	4.8	4.6	4.2	4.3	4.4
Technical	3.7	5.5	5.4	5.2	4.9	5.3
Economic	4.2	6.2	6.4	6.1	5.7	6.1
Lack of information	3.8	5	1	2.4	1.8	3.2

- There was little consensus as to what could be considered the greatest barrier to improving energy efficiency; economic barriers (6.1/10) were marginally more significant than other factors.
- Both SMEs and MEUs thought economic barriers the greatest barrier, and agreed that technical factors were the next most important factor.
- In each of the five areas, overall significance was higher than in the previous survey.



Viewpoint

The findings from the last section indicate businesses are preparing for a period of high energy prices, at least over the next few years. The growing environmental pressures to reduce consumption have only served to compound the problem with the result that energy efficiency has moved centre stage for UK business.

This shift is underlined by the research as respondents now rate the significance of energy efficiency higher than in any previous report, particularly amongst major energy users.

Understanding remains key to achieving energy efficiency; understanding your energy use, but also understanding that lateral thinking can identify a broader range of savings. Many more

companies are now taking a 'cradle to the grave' approach to energy as the most effective means of reducing consumption and cost. Alliances between purchasing and traditional energy efficiency and management, allow for greater efficiencies. Savings can be identified right through the energy procurement/ consumption process, rather than concentrating on individual areas.

Procurement and energy management products, meanwhile, are evolving to meet changing customer demands and the new energy market environment; offering further means to turn price volatility to commercial advantage, an approach increasingly adopted by larger energy users.

Traditionally there was a one-size-fits-all approach to procurement; buying energy was simply a matter of purchasing a fixed period's usage, at a fixed rate, in a single transaction. In today's market, making such a decision could involve a great deal of risk. Wholesale prices have risen significantly over the last few years, but not in a straight line. Even on a daily basis, prices can still rise and fall by a considerable amount.

The latest sophisticated procurement products mitigate volatile and increasing costs by applying more sophisticated risk management principles to energy purchasing. The premise is the same as that behind many commodity markets.

With companies hedging a portion of their energy needs. A modern supply contract may now have 24 buying points a year; a far cry from traditional annual or bi-annual spot purchasing patterns. This flexibility means a company can take advantage of short-term movements in the markets to bring long-term benefits, by purchasing several months' usage when daily prices are favourable.

The initial focus for these purchasing tools has been on the major energy users who are most acutely affected by energy costs. The challenge for the energy industry is to now develop products and services to share these benefits with all energy users.

The latest nBEI report reveals that, most companies have taken steps to improve energy efficiency in the last six months, with the most popular choices being changing heating and lighting (46%), and asking for more information (46%), a similar picture to previous results.

What these results also show is a tendency for companies to look to the solutions that require less time and resources. Regardless of the size of an organisation, auditing consumption across all business operations will highlight areas for improvements in energy efficiency. Some of these will be low cost options, such as educating staff on environmental benefits; some will require substantial investment, such as the overhaul of building management systems; some may even require outsourcing of energy management to specialists. Effective energy efficiency must go beyond the simple, easy measures and companies need to grasp the nettle and take a longer term view of the benefits of investing in energy management.

Despite ever increasing energy costs, economic reasons are still cited as the major barrier to achieving further efficiency improvements (table 2.3). During times of economic pressure, investment in energy efficiency could require a leap of faith. Companies in the vanguard are now taking a holistic view to energy efficiency; bringing together risk and energy management and looking at all business operations to identify and realise true efficiencies.

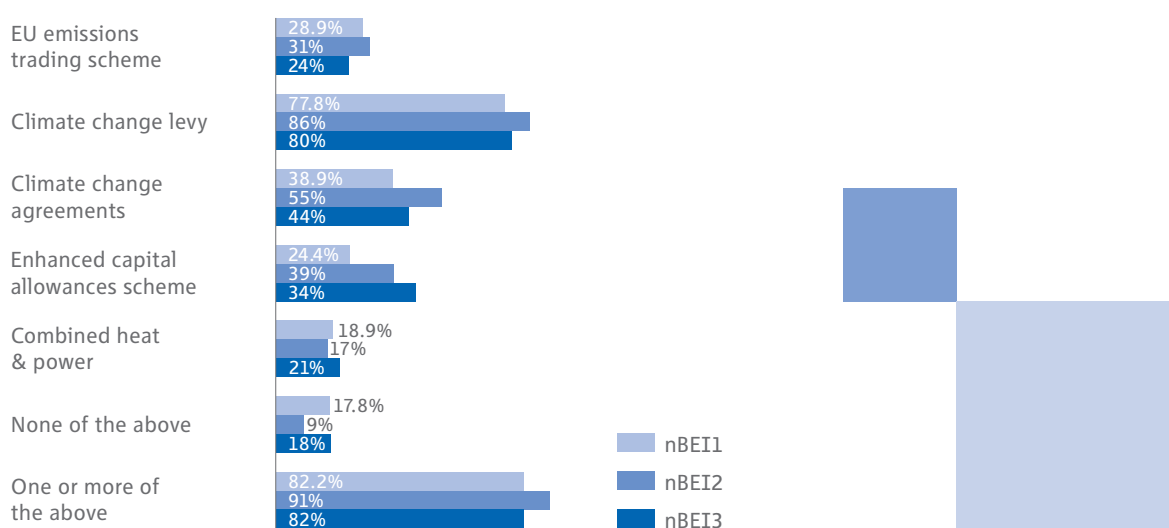
Section 3: Public Policy

Respondents to the survey were asked a series of questions on their current involvement in official energy schemes as well as what else could be done at a central level to promote energy efficiency. These results have been compared to figures from the previous two nBEI surveys. A selection of comments from both SMEs and MEUs continues to highlight a number of concerns with current energy policy.

3.1 Involvement in official energy scheme

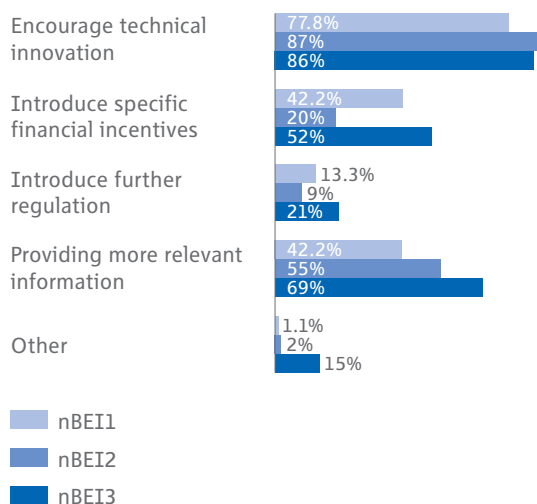
	SMEs 2	SMEs 3	MEUs 2	MEUs 3	All 2	All 3
EU emissions trading scheme	1	0	30	24	31	24
Climate change levy	21	13	65	67	86	80
Climate change agreements	3	3	52	41	55	44
Enhanced capital allowances	0	3	39	31	39	34
Combined heat & power	1	3	16	18	17	21
None of the above	9	16	0	2	9	18
One or more of the above	21	14	70	68	91	82

- The greatest involvement in official energy schemes continues to be with the Climate Change Levy (CCL), and this is the case for both SMEs (of whom 43% are participants) and for MEUs (96%).
- SMEs are less likely to participate in official energy schemes than MEUs.
- Compared to the previous survey, the number of companies using CHP increased marginally, while the proportion of our sample participating in the EU's Emissions Trading Scheme fell from 31% to 24%.



3.2 What the Government could do to help energy efficiency (%)

	SMEs 2	SMEs 3	MEUs 2	MEUs 3	All 2	All 3
Encourage technical innovation	80	80	90	88.6	87	86
Introduce financial incentives	53.3	60	5.7	48.6	20	52
Introduce further regulation	23.3	23.3	2.9	20	9	21
Provide more information	70	60	48.6	72.9	55	69
None of the above	0	0	2.9	21.4	2	15



- There continues to be a general consensus that the Government could do more to help improve business energy efficiency, with 85% of companies arguing this to be the case (but down from 98% 6 months ago).
- Both SMEs and MEUs thought the Government's greatest contribution would be to encourage technical innovation – agreed by 80% of SMEs and 89% of MEUs.
- There was also strong support for the Government facilitating the provision of more information on energy efficiency and, according to SMEs, introducing financial incentives.

3.3 Highest priority

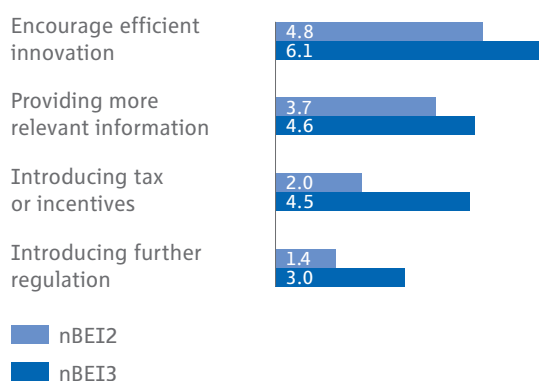
(Scale 1-10, where 10 is the highest priority)

	SMEs 2	SMEs 3	MEUs 2	MEUs 3	All 2	All 3
Encourage technical innovation	4.57	6.13	4.83	6.03	4.75	6.06
Provide more information	4.03	5.37	3.51	4.31	3.67	4.63
Introduce financial incentives	3.37	5.27	1.41	4.19	2	4.51
Introduce further regulation	2.03	3.4	1.13	2.89	1.4	3.04

- Compared to the previous survey, each of the four factors were seen to have grown in significance.
- SMEs and MEUs agree that the Government's highest priority is to encourage technical innovation in order to improve energy efficiency.

- SMEs and MEUs agree in the order of priority for the Government: encourage technical innovation (6.1/10), provide more information (4.6/10), introduce financial incentives (4.5/10) and introduce further regulation (3/10).

(scale 1–10 where 10 = most significant)



What could the Government do to help you improve your energy efficiency?

Selected comments

SMEs

'Change in regulation should cause a change of behaviour; there is an awful lot of information around, but most is not relevant – it is relevant information that is lacking.'

'There is already enough legislation.'

'The government approach to dealing with energy issues of companies and of the general population is not effective, they apply a top-down approach which is not effective, they ought to apply a bottom-up approach instead.'

MEUs

'Proactive industry advice and a watchdog to check and control.'

'We are an energy intensive user – more tax just makes us less competitive versus China or Pakistan etc. The government need to get the EU market liberalised – need to ensure we get gas back in the Winter and make sure the interconnector does what it should.'

'Financial support required for small to medium sized companies to support new technologies.'

Viewpoint

The current situation regarding energy costs is fuelling business demands for commitment from Government to encourage energy efficiency. There is also the clear message that this should not be interpreted as a call for further regulation or taxation.

The report shows that Climate Change Levy (80%) and Climate Change Agreements (55%) remain the most prevalent energy schemes companies are involved in. However, results increasingly indicate that some schemes are perhaps not realising their full potential.

The EU emissions trading scheme (ETS) is a case in point. Recent anecdotal evidence suggests a lack of knowledge is preventing companies utilising the scheme effectively.

In the previous section, the majority of respondents cited economic barriers as the major hurdles to implementing further energy efficiency measures. Bearing this in mind, involvement in the Enhanced Capital Allowance (ECA) scheme, where companies can recoup investment in energy efficiency through Government incentive schemes, is therefore surprising. Results show a decline in participation, down to 34% of respondents, from 39% in the previous study.

Encouraging technical innovation remains the best way Government could aid energy efficiency, according to 86% of companies. While recent market developments have seen technology such as automated meter reading being made widely available for the first time, it appears there is still much that Government could do to support further advances.

Combined Heat and Power (CHP) technology is a perfect example. In recent times, exemptions from Climate Change Levy (CCL) have aided the adoption of CHP. However, EU State Aid approval

for CCL exemption on Good Quality CHP – the exported electricity from CHP plants – is only valid until 2015. Government confirmation of its intention both on the future role for CCL and its application to the EU for a longer term CCL exemption for CHP, would clearly help reduce any regulatory and economic uncertainty regarding the technology.

The Government could do more to raise awareness of the importance of energy efficiency amongst businesses, especially SMEs. Financial incentives including grants and tax breaks for energy reduction would draw attention to the issue and facilitate action. Government could also endorse the credentials of supply companies to deliver sustainable energy solutions helping to overcome scepticism in the market.

The prevailing sentiment is that more should be done by Government to help businesses address energy efficiency, both in terms of encouraging technical developments and raising awareness of the issue.

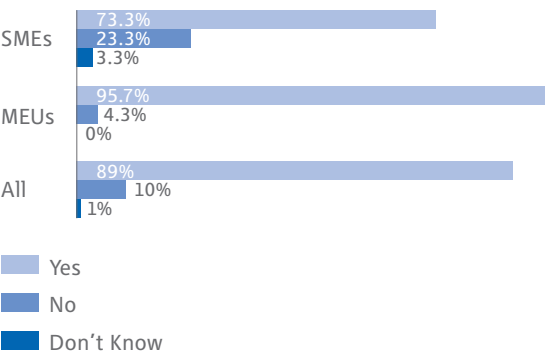
In terms of the regulations to facilitate this, npower believes that market driven schemes are the most appropriate means to this environmental end. Companies should consult with their suppliers as to the threats and opportunities proffered by these schemes. It is likely that business should prepare for a future shortfall in carbon allowances as emissions targets are tightened. Expert advice will help companies manage this scenario and realise the commercial advantages afforded by reducing carbon emissions.

Section 4: Gas in the UK Energy Mix

The final topical section of this nBEI report centres on the role of gas in the UK’s energy mix and explores corporate attitudes to the UK’s growing dependency on imported gas and the options available to reduce this dependency.

4.1 Is dependence on gas imports a concern?
SMEs MEUs All%

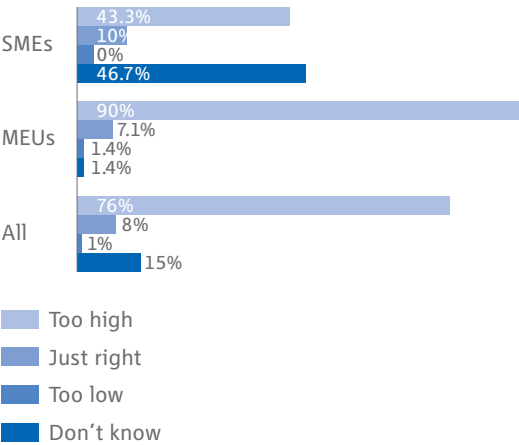
Yes	22	67	89
No	7	3	10
Don't know	1	0	1



- Among our survey participants, there was deep concern about the UK’s increased dependence on gas imports: 89% of respondents were apprehensive.
- This was true both for MEUs and for SMEs, although this sentiment was even more widespread amongst MEUs (96%) than SMEs (73%).
- One in ten companies surveyed were unconcerned by the UK’s increased dependence on gas imports.

4.2 Would a gas market share in power generation of over 60% be:

	SMEs	MEUs	All%
Too high	13	63	76
About right	3	5	8
Too low	0	1	1
Don't know	14	1	15

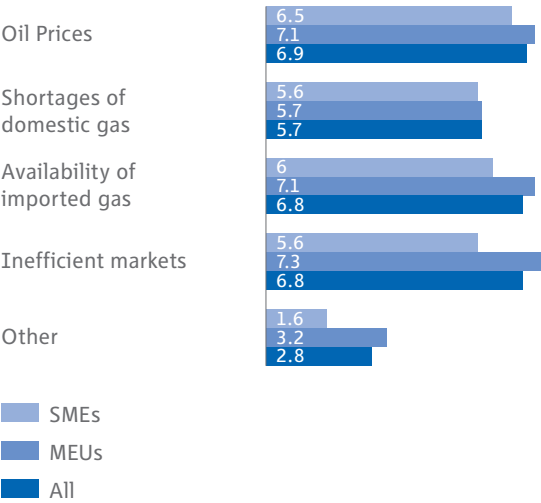


4.3 How important is it therefore to invest in: (scale 1–10 where 10 = most significant)

	SMEs	MEUs	All
Coal-fired generation	6.3	5.9	6.0
Gas-fired generation	5.4	4.4	4.7
Oil-fired generation	4.0	4.1	4.1
Nuclear	6.8	8.0	7.6
Wind/renewables	7.5	6.7	7.0
Other	1.3	2.1	1.8

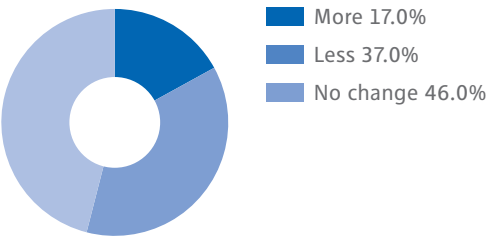
- There was a consensus that a gas market share in UK power generation above 60% would be too high: 76% of respondents said this would be the case.
- There was a striking difference of opinion, however, between SMEs and MEUs: while only 43% of smaller business thought such a market share would be too high, 90% of MEUs thought it would be.
- When pressed on the importance of future investment in the energy sector, nuclear was regarded the highest priority overall.
- This overall picture, however, masks a difference of opinion between MEUs and SMEs: whilst MEUs see nuclear as the greatest investment priority, SMEs give second place to nuclear and argue that wind and other renewables should be the greatest priority.
- There is also some ongoing support for, in order, coal, gas and oil-fired generation.

4.4 Reasons for recent rises in gas prices
(scale 1–10 where 10 = most significant)



- When probed for the reasons behind recent rises in gas prices, increases in oil prices were regarded as the most significant reason (rated 6.9/10 for significance).
- This narrowly beat two other significant factors: availability of imported gas and inefficient markets (both rated 6.8/10).
- For MEUs inefficient markets are the main cause of recent rises in gas prices; SMEs claim oil prices are mainly responsible.

4.5 Would you now be more / less / equally likely to invest in gas-fired power plant or CHP? (MEUs only)



- MEUs (only) were asked whether they would be more or less likely to invest in gas-fired power plant or CHP: only 17% of respondents said they were more likely to invest in one or either.
- The most popular response was 'no change,' a view expressed by 46% of respondents.
- 37% of MEUs said they were now less likely to invest in gas-fired power plant or CHP.

Comments from selected policy-makers and influencers on the role of gas in the UK energy mix

What factors do you believe have caused recent gas price rises in the UK?

'The underlying issue is the tight supply and demand situation as we've moved away from being an exporter of gas to a net importer of gas. There is less storage in the UK than our continental counterparts have; in the past we've been dependent on our own reserves in the North Sea and have therefore had lower storage requirements.'

The gas price volatility has reflected tight demand, particularly on cold days. The closure of Rough in February added to that, as well as oil prices and low flows on the interconnector.'
(CBI)

'It may be helpful if you break it down into pre-Christmas and then post-Christmas. When you look at pre-Christmas, there was certainly a period in November that was reflective of a tightness of supply... we have managed to satisfy ourselves that the reduction in beach supplies seen over that period was due to technical difficulties. The part we haven't satisfied ourselves on is imports and why was the interconnector not flowing in response to the price differential?... Given where prices were over that period you would have expected to see much greater flows through the interconnector. From January onwards we have seen increased flows which does indicate there may have been a European storage effect, with parties in Europe perhaps more willing to send gas through once they could see that we were almost through the winter and their domestic obligations to retain gas in store to meet a 1 in 50 winter demand can still be satisfied.'
(Ofgem)

'There are several. They include the faster than expected depletion of UK Continental Shelf resources, the foreclosure of European markets by major incumbents, the commercial behaviour of integrated energy companies within the UK who have the market power to pass on those price rises to their consumers, and the linkage of gas prices to oil and declining liquidity.'
(Cornwall Energy Associates)

'It's a combination of increased demand for gas not being matched by the increased rate of supply combined with the fact that the market isn't particularly liberal within Europe at the moment. I think that certain countries other than the United Kingdom have monopolised some of the gas. Underlying that I see a long-term trend that means that gas prices are going to go up because of the increased demand and limited supply.'
(IPPR)

'There are a couple of reasons – one of the main ones was a poor prediction of the weather severity. It was predicted to be one of the coldest winters we've ever had and turned out to be a fairly average winter. There was a lot of fear early on with traders that gas was going to run out later in the winter and of course that fear never materialised.

The other physical problem is the limited storage facility that we have here in the UK. We now find ourselves importing a lot more gas and are therefore facing a greater exposure to factors outside our control than we have previously.
(ESTA)

What developments are likely to work towards redressing the problem over the next five years?

'There are two key elements – first, delivery of additional gas storage and import infrastructure capacity and second, ensuring flows of gas into that capacity.'

The delivery of commercial gas storage and import infrastructure is going to be an important factor over the next couple of years; there's a fair amount of investment that has been committed by the industry already – in the region of £10bn.

The degree to which we can improve the flows of gas into that capacity will be key – opening up of European energy markets is obviously central to achieving this.'

(CBI)

'As you'll be aware, there is investment already on the way, some of which is planned to come online ahead of this coming winter... somewhere in the order of £10bn of investment and new infrastructure projects with the BBL (Balgzand Bacton Line) pipeline this year and new LNG import facilities also being developed. Just looking at the planned investment coming online demonstrates that while the UK is likely to be a net importer of gas supplies over the next few years, within the next 5 years the UK could be expected to be exporting gas to the continent again.'

'Moreover, this winter we've seen much more demand response than ever before; previously demand has been relatively inelastic... I think that customers that have been exposed to the prices over this winter will be actively looking at their purchasing decisions over the coming winter and working with their suppliers to understand what options are available. Already the degree of fuel switching seen over winter [on the part of generators] in the electricity market has in itself provided an effective source of 'gas storage' equivalent to the size of the Rough facility.'

That puts the tightness in supply into context and shows how the market is diversifying to meet changing demands.'

(Ofgem)

'In the medium term the expectation is that greater import facilities will mean greater potential for gas to flow into the UK especially at peak and this might make participants more relaxed about the potential for us to manage the highest demand times.'

I think with a bit of planning and flexibility demand response from industry as opposed to power generators could become quite an important feature of gas peak demand management.'

(Cornwall Energy Associates)

'I see potential for the further liberalisation of the European energy market that might create a more level playing field. For the UK there are also several projects underway that are designed to increase the storage capacity of gas within the UK which would hopefully enable the smoothing out of the peaks and the troughs so we won't be quite so vulnerable to the spot market as we currently are.'

I still think there is an underlying trend of prices going up and, as an environmentalist, I believe that we will have to find ways of weaning ourselves off these fossil fuels or at least capturing the emissions from their use. I think nevertheless that gas is an important transitional fuel.'

(IPPR)

'The building of storage facilities would indicate that we are starting to operate in a way which recognises ourselves as importers of energy. We will have more capacity in terms of the ability to ship from the continent which will help the situation but unless the other infrastructure is put in place people are going to feel at risk from tightness of supply.'

(ESTA)

Ultimately, which set of influences will prevail? Will gas prices paid by UK business and generators remain high and volatile?

'I can't imagine that the situation is going to be any different – I think we'll see high and volatile prices in the short-term. Instinctively I would say that as more gas import and storage infrastructure capacity goes in place volatility should be dampened but I think the long-term trend is probably towards higher prices globally. For the UK, and UK business, the key issue is whether we are paying higher prices relative to our competitors.'

(CBI)

'The market will determine what prices are. The best judge at the moment of prices for next winter can be seen in the forward curves – where these are currently trading at does seem to suggest that people perceive that next winter, regardless of some of these new supplies coming online, there is still a risk of increased supply tightness.'

(Ofgem)

'I think that you need to decouple two factors when looking at prices. One is the link into oil which I think will be the key driver into the longer term and the other is the UK market sentiment factor, the bit you can't explain. Hopefully the greater availability of gas imports will reduce that pressure and who knows where the oil price is going to go?'

(Cornwall Energy Associates)

'I think they will remain high. They may be less volatile in future, if and when the extra storage facilities are built and interconnectors start operating but I think the underlying trend is up. I think British industry has benefited from cheap gas, excessively cheap gas, in recent years. This is because the environmental costs have not been properly factored in; as they are and the proper price is put on carbon over time through instruments such as the EU Emissions Trading Scheme then that market failure will be rectified.'

(IPPR)

'Whilst there a lot of predictions that prices will come down in 2008 as a result of increased interconnector capacity, I don't think that prices will fall dramatically – they will more than likely lose some of their volatility, but I don't think we will see a major price drop.'

(ESTA)

What role should gas have in the future of UK power generation?

'If one put the right frameworks in place you would naturally assume the generating companies would diversify their generating portfolios which would mean they would not only invest in gas generating plant, but also in nuclear, clean coal or renewables. Obviously any policy framework put in place would have to take account of carbon objectives and security of supply objectives in terms of getting the right sort of generation portfolio. I see gas as having an important role to play in that.'

(CBI)

'At the moment gas-fired generation represents about one-third of the UK's generation mix. It may well be that given the effects of recent gas prices, other forms of generation may be more economic in respect of new generation investment going forward. Parties also now need to consider the costs of carbon when taking such investment decisions. As such, new technologies are likely to evolve to allow parties to meet carbon (abatement) requirements.'

(Ofgem)

'I think it should have a very significant role as it has operational flexibility and low carbon advantages that other technologies don't.'

(Cornwall Energy Associates)

'We should embrace the fact that gas is going to be responsible for a higher proportion of electricity generation in the next couple of decades and clearly it's going to remain an important space heating fuel as well. I regard that as being transitional partly because it's a finite resource and although we haven't run out of it yet and it's certainly not going to run out as fast as oil is, it will continue to run out in decades ahead as demand grows.'

'There is of course the prospect that we might develop carbon capture and storage on a significant scale and that could give gas a new lease of life as well in the decades ahead. My main view is to regard gas as a very important transition fuel towards a properly low-carbon economy.'

(IPPR)

'There are four strands to the way we can get our power: nuclear, gas, oil and renewables. In broad terms, we think there should be an equal balance between those four mechanisms. That would represent a stable and relatively secure situation because if one method failed, we would still have 75% supply. But, at any one time you will see one of these four being the most economic – market forces then switch our reliance over to that strand which leaves us vulnerable. There will have to be some mechanism of intervention by UK government in order to bring those four routes to a level playing field and ensure equal supply. This could be by allocations rather than price penalty or subsidy.'

(ESTA)

Viewpoint

Meeting the UK's future energy needs understandably concerns business users. The survey confirms that business consumers are concerned (or remain concerned) about the over-reliance in the UK on imported gas, and the prospect of over investment in gas-fired generation to meet the UK's future energy needs. Instead, a balance of generation methods is believed the best way for the UK to plan its long-term electricity requirements.

As a major energy supplier and generator, managing wholesale costs is a constant priority for npower. The UK has become a net importer of gas more quickly than was expected as North Sea reserves have declined. While industry is well able to work together to keep the gas flowing, the UK's increasing reliance on imports is likely to keep prices high for the time being.

The reasons are complex. Even with European markets progressively liberalising, physical and technical issues need to be overcome to smooth gas transportation. The operation of the market is affected by national regulators dictating that gas goes into storage, rather than flowing to the UK - even if there is a profit in it. The significance of linked gas and oil prices also grows once you begin to import more and most obviously weather does not respect national boundaries - when the temperature drops across Europe, continental suppliers simply do not have spare gas to ship to the UK.

But we need not fear becoming a gas importer - most other European countries already are. New storage and import facilities are coming online and we can buy our gas from varied sources; in liquified form by ship from all over the world, and via new pipelines to complement the one already running from Zeebrugge to Bacton on the Norfolk coast.

What we must not do is make poor strategic decisions about our energy, like linking electricity production too strongly to gas, or any other fuel. Currently, we have a healthy mix of electricity generation methods, around a third of the UK's electricity is generated from gas, and we should maintain that, with new stations coming online as necessary.

The Government's energy review presents an opportunity to help frame a market that will maintain diversity. This is a better option than delivering 60-80% of our electricity from gas stations by 2020. Even in a time of high gas prices, this is likely, due to the environmental costs and barriers that prevent the development for fossil fuels (including, for example, new nuclear build). An over-reliance on gas could leave the UK exposed to volatile prices, knocking on from the gas industry into electricity.

While new gas power stations bring gains in efficiency and reduced emissions, gas is still a fossil fuel. Ironically bedding in too many gas-fired power stations with long lifetimes could deter research and development and investment in zero CO₂ energy over the long term.

This calls for a dose of pragmatism. Versatile coal generation still has a role to play to bridge the gap to a sustainable energy future. In fact clean coal technology depends on keeping our coal plant infrastructure in place and the Government must be careful that coal generation is not regulated out of the market.

At the other end of the spectrum there is more potential for 'microgeneration' in homes. A rethink on energy efficiency regulations could realise this by making better use of the hundreds of millions spent by energy suppliers each year on improving housing stock.

We also need to take renewable energy to the next level. RWE npower has spent £450m to date developing renewable sources and is committed to significant ongoing investment. The renewables obligation has made this sort of investment possible and should be preserved to maintain investor confidence while consideration is given to how to make the next generation of bigger offshore wind projects a reality.

Finally, the Government's energy review is an opportunity to complete the debate on nuclear power. Nuclear is a proven low carbon technology but the very real issues of costs, public acceptance, waste disposal and other issues remain. Either way, decisions must be taken if the conditions for significant, lasting investments are to become clear.

Managing price volatility, securing supplies and tackling emissions are big challenges. Government and industry have to work together to maintain a diverse mix of electricity generation methods if we are to meet them, and approach the future with confidence.

npower Concluding Viewpoint

Since the npower Business Energy Index began, the UK energy landscape has changed significantly. Global supply and demand issues have fuelled volatility in the wholesale energy market, with its inevitable impact on UK energy prices. Over the same period, a ream of environmental legislation has come into force, affecting all parties across the generation and supply chain, including end users.

Against this backdrop, UK business now finds itself facing economic and environmental challenges as never before. This is underlined when comparing the results of all the surveys, clearly showing the continuing impact energy prices are having on companies of all sizes over the past eighteen months.

The paradigm shift from being self sufficient to an energy dependant nation is causing many businesses to readdress how they view energy. Greater exposure to global factors, combined with the political objectives to tackle climate change, is conspiring to drive the energy efficiency agenda, with businesses rating the importance of efficiency higher than ever before.

Companies must be wary of going through the motions in terms of energy efficiency, or perceive economic investment as an insurmountable hurdle to further improvements. Forward looking companies are recognising the value in taking a holistic view to energy and the impact this can have on costs and consumption. Utilising the latest risk and energy management support, savings are possible throughout the purchasing/consumption cycle. This may require significant investment, or a departure from the traditional comfort zone, but short term costs should be balanced against longer term economic and environmental returns.

Information is also key to success. The apparent low take up of established incentive schemes such as Enhanced Capital Allowance programmes is symptomatic of information seemingly not

getting to the right people. Consulting with expert partners, including energy suppliers, will help companies realise the commercial advantage to be gained from participation in this and other initiatives.

Looking ahead, the latest findings indicate growing uncertainty amongst respondents that the current situation regarding costs is unlikely to change, with substantial increases predicted by many over the next few years.

The forthcoming Energy Review is heralded by many as a panacea for these particular ills, but we all have a role to play in addressing these concerns. In the interim, rather than feel victims of circumstance, businesses should also take action to help themselves.

A shift in focus is needed amongst some businesses towards longer term planning and establishing strategic partnerships with suppliers will help this process. Through these relationships, energy buyers can take advantage of all advice and support available and help determine to what degree they are affected by the current climate.

As for future energy supplies, providing affordable energy to meet the future needs of UK business, while reducing environmental impact is a tall order. The clear message from this report is that reconciling these conflicting ambitions is possible, but only through a clear long-term energy policy framework where all generation options are considered.

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