

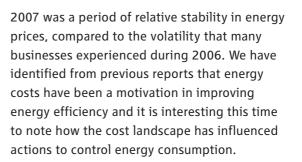
# npower Business Energy Index Winter 2007—2008



#### Dear Reader,

Welcome to the fifth npower Business Energy Index (nBEI5), which has now become our annual index analysing and monitoring business perceptions of the energy market and key energy trends.

Energy remained an important topic throughout 2007 as legislative announcements from the Government, including the draft Climate Change Bill and Energy White Paper, served to focus further attention on the relationship between energy efficiency and carbon dioxide emissions. What is clear, perhaps more than ever, is that the Government is looking to business to reduce CO<sub>2</sub> from its operations and is putting into place a framework to provide businesses with incentives to enact carbon reduction measures.



Against this backdrop, the three sections of the latest nBEI look at business attitudes to energy prices and energy management to investigate and understand how businesses are managing these twin pressures. Our special topic this year focuses on carbon emissions and looks at businesses' opinions of the current legislative framework designed to bring about emission reduction. This provides an interesting insight into how businesses view existing legislation and the potential success of future developments planned by the Government.



We must thank the Major Energy Users' Council and the Federation of Small Businesses for their continued support in this research. The survey was designed and conducted by Moffatt Associates, an independent research consultancy.

We expect energy management to continue to rise up the boardroom agenda as carbon emission risks become an important part of business strategy and further influence the bottom line. With this growing priority we hope this report serves to inform and provide guidance on assessing and developing energy policies.

Yours sincerely,

#### **Paul Coffey**

Managing Director, npower business

#### **Research Objectives**

The npower Business Energy Index seeks to identify and monitor trends in, and expectations about, key energy market developments in the UK. The survey is an annual barometer of issues affecting both large and small business energy users.

#### Specifically, the survey:

- reviews energy costs, their components and the impact on business performance;
- measures and monitors the incidence and efficacy of energy management measures designed to increase energy efficiency and reduce energy consumption;
- explores business attitudes and opinions on current and future public energy policies.

Each survey also canvasses opinion on a special topic and, in this report, the special topic is carbon emissions.

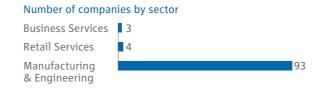
#### Research Methodology

In-depth telephone interviews were conducted in October and November 2007 with a representative sample of 200 UK businesses, comprising 100 small- to medium-sized enterprises (SMEs) with significant energy usage and 100 major energy users (MEUs).

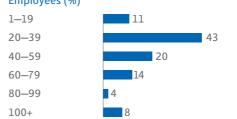
In the majority of cases the respondent was an energy buyer or a senior figure with responsibility for energy purchasing.

The responses to the survey provided both comparable quantitative data and verbatim comments on a range of key energy user issues. Selected quotes from MEUs and SMEs are included within the main sections of the report.





#### Employees (%)

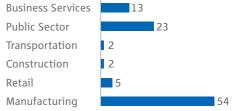


#### Primary location

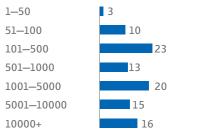


#### Major energy users' profile

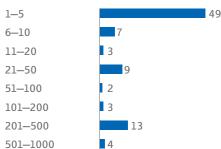




#### Employees (%)







#### Primary location

1000+



3

## **Research Highlights**

The impact of energy costs is reducing but further cost increases are expected in the next three years:

- Companies report that energy costs are falling as a proportion of total operating costs – down from 12.2% a year ago to 9.4% now. This figure masks a significant difference between major energy users and small- to medium-sized enterprises, for whom energy costs constitute 11.5% and 6.4% of total operating costs respectively.
- Less than a quarter of companies have experienced rising energy costs over the last six months: only 24% of SMEs and 22% of MEUs. At the same time, 45% of MEUs and 14% of SMEs have enjoyed lower energy costs.
- Over the next six months, companies expect, on average, energy costs to rise by 3.1% – a much lower figure than last winter's equivalent of 8.5% and 16% the year before that.
- Looking further ahead, the overall prediction for company energy costs is that they will rise by 5.3% over the next three years. 72% of MEUs believe their costs will rise during this period.
- Explanations for recent increases in energy costs again differed according to company size:
   MEUs again attributed rises to fossil fuel price movements, but SMEs now blame environmental regulations and obligations.
- 37% of SMEs and 53% of MEUs report that changes in energy costs have lowered their profitability. In response, 62% of MEUs and 37% of SMEs have changed their equipment or technology in the search for greater efficiency.

There is continuing need for advice on reducing CO₂ emissions and energy efficiency:

- Energy management/efficiency remains a significant issue, but less so than at any point in the last 2.5 years. Companies gave this issue an average rating of seven out of ten in terms of significance to their business, with MEUs once again giving it more significance than SMEs.
- Most companies (77%) have taken steps to increase their energy efficiency. In fact, 41% of companies claim to have taken at least three actions. The most popular action for MEUs was changing their heating and lighting. For SMEs it was changing their equipment and technology.
- A high proportion of SMEs (46%) do not measure their energy efficiency levels at all;
   97% of MEUs do measure their energy efficiency levels. For those who do measure, the most popular method remains internal audits.
- Even after a sustained period of increased energy efficiency, MEUs believe that, on average, energy savings of 13% would be technically possible for their business.
- Most companies identify a need for external advice or support. For example, 69% of MEUs said they needed advice on managing carbon emissions, and 49% of SMEs want advice on energy saving capital allowances. Both SMEs and MEUs were most keen to receive support from non-governmental organisations such as the Carbon Trust.
- Simple efficiency measures likely to give the biggest payback for SMEs were identified as using more efficient equipment; using more efficient lighting and heating; and minimising building heat loss.

- Only 33% of SMEs said they had both the time and the resources to invest in energy saving initiatives.
- A small majority of SMEs (56%) would be prepared to sign up to a five year contract if a supplier helped them improve their energy efficiency.
- An increasing number of MEUs employ full-time staff for energy management: up from 60% a year ago to 69% now.
- A clear majority of MEUs (73%) employ building and/or process energy management systems.
- On balance, MEUs thought that compliance with climate change agreements had resulted in energy savings or process improvements: 56% said this was the case.

There is support for reducing CO<sub>2</sub> emissions but concern over the burden being borne by UK business:

- There is very strong support for the UK Government's commitment to reducing carbon emissions, which was backed by 81% of SMEs and 94% of MEUs.
- 68% of MEUs said they would be affected by the proposed new Carbon Reduction Commitment (CRC). However, three-quarters of MEUs thought that the combination of the Climate Change Levy (CCL), the EU Emissions Trading Scheme (ETS) and the CRC places an undue burden on UK business.
- On a positive note, 47% of MEUs and 24% of SMEs anticipated that reducing their carbon footprint could provide them with new commercial opportunities.
- Half of SMEs would be prepared to pay a premium for energy that reduces CO<sub>2</sub> emissions, although 88% of these said they would not pay more than 5%. In a related question, MEUs said they were most likely to pay a premium for energy sourced from wind power or combined heat and power (CHP).
- The most common perception of how the UK is performing in terms of reducing its carbon emissions is that it is "keeping up with everyone else" (37%). 27% thought the UK is leading the rest of the world and 25% thought it was following.

4 5  $\blacksquare$ 

npower Business Energy Index - Winter 2007—2008

## **Section 1: Energy Costs**

In this fifth npower Business Energy Index respondents were asked a range of questions relating to energy costs and these have been benchmarked against results from previous surveys.

#### Key

SMEs are small- to medium-sized enterprises MEUs are major energy users

- (1) = nBEI Summer 2005
- (2) = nBEI Winter 2005
- (3) = nBEI Summer 2006

- (4) = nBEI Winter 2006
- (5) = nBEI Winter 2007/2008

#### 1.1 Energy costs as a proportion of total operating costs (%)

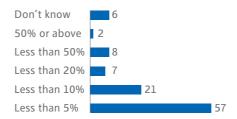
	SMEs (4)	SMEs (5)	MEUs (4)	MEUs (5)	All (4)	All (5)
Less than 5%	43	53	30	61	37	57
Less than 10%	25	24	12	18	19	21
Less than 20%	13	6	15	7	14	7
Less than 50%	10	5	19	11	15	8
50% or above	6	0	24	3	15	2
Don't know	3	12	0	0	2	6

#### 1.2 Energy costs as a proportion of total operating costs (average %)

	(1)	(2)	(3)	(4)	(5)
Average – SMEs	6.6	4.2	7.5	10.7	6.4
Average – MEUs	8.2	12.1	10.6	13.7	11.5
Average – All	7.6	9.8	9.6	12.2	9.4

- After a sharp increase in the previous survey, companies have reported a fall in energy costs as a proportion of total operating costs: down from 12.2% a year ago to 9.4% now.
- The figure is significantly higher for our sample of 100 MEUs (11.5%) than for SMEs (6.4%).
- 5% of SMEs and 14% of MEUs say their energy costs represent more than 20% of their total operating costs. A majority of companies (both SMEs and MEUs) said that energy costs represented less than 5% of their operating costs.

#### 1.3 Energy costs as a proportion of total operating costs - all companies



Approximately what proportion of your company's operating costs are energy costs?

#### Selected comments

#### MEUs

'Ingredients are top of the list but energy is still £30m.'

'It's our big spender.'

'The company has had a change in direction due to energy costs.

We mothballed one line and laid off 50 people to get our base costs down to a minimum.'

'Energy costs are £2.4m out of [a] total turnover of £130m.'

#### 1.4 Components of company energy costs (%)

	SMEs (1)	SMEs (2)	SMEs (3)	SMEs (4)	SMEs (5)	MEUs (1)	MEUs (2)	MEUs (3)	MEUs (4)	MEUs (5)
Gas	18.8	18.1	16.0	19.2	22.9	38.1	41.0	41.2	36.4	40.6
Oil	6.4	6.6	4.9	4.2	4.8	3.6	1.6	2.1	1.6	1.8
Coal	0	0	0	0.7	0	0.1	0.1	0	0.5	0.1
LPG	1.4	0.1	0.1	2.1	0.2	2.5	2.3	1.9	1.2	0.5
Electricity	73.4	75.3	78.7	73.8	72.2	55.9	55	54.7	60.2	57.1

- Compared to the previous nBEI, gas has become a greater component of company energy costs, at the expense of electricity.
- Despite this growth in gas usage, electricity remains the greatest component of energy costs: 72% for SMEs and 57% for MEUs.
- Oil, coal and LPG each continues to be of relatively low significance, being below 5% of average energy costs.

#### 1.5 Estimated increase or decrease in company energy costs over the last six months (%)

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

	SMEs (3)	SMEs (4)	SMEs (5)	MEUs (3)	MEUs (4)	MEUs (5)	All (3)	All (4)	All (5)
Increased	40	71	24	68.6	52	22	60	61.5	23
Same	26.7	-	36	27.1	34	31	27	17	33.5
Decreased	0	4	14	1.4	14	45	1	9	29.5
Don't know	33.3	25	26	2.9	-	2	12	12.5	14

- Over the last six months, more companies have reported falling energy costs (29.5% of all companies) than rising energy costs (23%).
- The most popular overall response was that prices were roughly the same – so said 36% of SMEs and 31% of MEUs.

## By how much have your energy costs increased/decreased over the last six months?

#### **Selected comments**

#### **MEUs**

'[We have a] three year gas contract ending December 2007 – moving up by 19%.'

'Average figure for last six months is down about 10%.'

'Both gas and electricity have been down but monthly gas is now rising again.'

'Difficult to quantify. Contract prices have come down, but flexible prices have increased.'

'Due to a contract there was no change.'

'Electricity costs have decreased by 12%, gas stayed [the] same. New contracts for both agreed in past two months.'

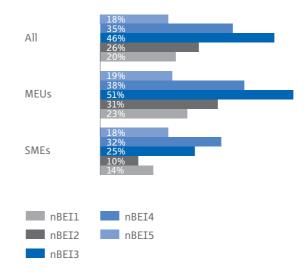
'Flexible purchasing contract. Costs are around 30% lower than this time last year.'

'Recently gas has gone from 27p to 40p and electricity has doubled but we are flexi so we have to follow closely what's happening.'

'The more recent trend is upward again after unexpected falls early in the year. Longer term rises are inevitable.'

'We came off a two year contract in June 2006 and costs increased by 90%, but have since reduced.'

#### 1.6 Average increase in energy costs – last six months



- Of companies reporting an increase in energy costs, the average increase was 18% over the last six months.
- This figure was considerably lower than the average reported increase a year ago, which was 35%.
- There is no significant difference between increases in energy costs experienced by MEUs (19%) and SMEs (18%).

# When considering the underlying causes of recent changes in your energy costs how significant in your view are each of the following factors?

#### **Selected comments**

#### **MEUs**

'[The] continued exploitation of price movement by banks, beyond merely providing liquidity.'

'Costs will increase as the UK has to import more energy due to depleting resources.'

'Oil and its uncertainty of supply seems to be the current driver.'

'Taxes on top of tariffs.'

'The financial markets respond to the geopolitics, the rumour mongers and the speculators. What chance of control do you have, or even the energy companies?'

'The Government dithering over long-term energy strategy is resulting in greater reliance on imports and less security of supply.'

#### 1.7 Perceived significance of selected cost drivers in the last six months

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

	SMEs (5)	MEUs (5)	All (5)
Fossil fuel price movements	5.32	7.78	6.55
Power/gas supplier charges	5.89	4.67	5.28
Environmental regulations and obligations	5.97	6.25	6.11
Other government/public policies	5.46	5.86	5.66
Seasonal fluctuations e.g. weather	4.48	5.27	4.88
Other	5.45	4.53	4.99

- Regarding the "underlying causes" of the rise in energy costs, the most popular explanation is fossil fuel price movements (with an average rating of 6.6/10).
- However, this overall figure masks the fact that SMEs and MEUs identify a different main driver in cost: SMEs regard environmental regulations and obligations as the most important (rated 5.97), whilst MEUs identify fossil fuel price movements (7.78).

#### 1.8 Perceived impact of rising energy costs (%) – SMEs

	Decrease	Increase	No change	Don't know
Change in profitability	37	16	41	6
Change in competitiveness	15	17	65	3
Change in operations/activities	10	28	59	3
Changed prices of your products/services	11	42	47	0
	Yes	No		
Change in equipment/technologies used	37	63		
Change in production processes	29	71		
Change in number of employees	50	50		

#### 1.9 Perceived impact of rising energy costs (%) - MEUs

	Decrease	Increase	No change	Don't know
Change in profitability	53	14	31	2
Change in competitiveness	38	19	41	2
Change in operations/activities	33	16	50	1
Changed prices of your products/services	11	47	40	2
	Yes	No		
Change in equipment/technologies used	62	38		
Change in production processes	52	48		
Change in number of employees	44	56		

- On the implications of changing energy costs, both SMEs and MEUs reported a subsequent decrease in profitability: 37% and 53% said this was the case respectively.
- A number of companies said they had become more profitable, sometimes because they had invested in more efficient equipment in response to high energy costs.
- 62% of MEUs have changed their equipment in response to changes in energy costs; only 37% of SMEs have done likewise.

## In what ways has your business been affected by recent changes in energy costs? Selected comments

#### MEUs

'[It has] changed [our] investment policy.
[We] have invested in clay tiles with new
more energy efficient solutions and
environmental impact is being given
a higher profile in decision making.'

'[The] hike in energy costs has had knock-on effect on other areas, reducing funding elsewhere.'

'It hasn't really affected the number of employees but we have changed processes to accommodate different fuels such as biomass.' 'It is likely that pressure from energy costs will force cuts in other areas.'

'[The] most recent major impact is on customer spending. No change in operations. [We are] upgrading and making infrastructure more efficient.'

'Our biggest concerns are profitability and competitiveness, although I believe that we have the best energy team in the sector.'

'Our suppliers, e.g. steel makers, are major energy users and their cost/price increases have affected our business.'

■ 10 11 ■

#### 1.10 Expected increase or decrease in company energy costs over the next six months

	SMEs (4)	SMEs (5)	MEUs (4)	MEUs (5)	All (4)	All (5)
Predicting increase (number of companies)	52	30	34	66	86	96
Average of increases	22.3%	11.4%	22.4%	8.3%	20.3%	9.2%
Predicting no change (number of companies)	-	27	51	9	51	36
Predicting decrease (number of companies)	12	10	15	22	27	32
Average of decreases	21.3%	13.0%	6.3%	11.4%	13.0%	11.9%
Don't know (number of companies)	36	33	-	3	36	36
Overall change predicted	+14.1%	+3.2%	+6.7%	+3.0%	+8.5%	+3.1%

- The overall average expectation was that prices would rise by 3.1% over the next six months, a significantly lower figure than expected in nBEI4 (8.5%).
- For both SMEs and MEUs, those predicting increases in energy costs outnumbered those predicting decreases by a ratio of 3:1.
- 27% of SMEs and 9% of MEUs anticipated no change in energy costs over the next six months.
- By how much do you expect your energy costs to increase or decrease over:
- (a) the next six months? and
- (b) the next three years?

#### **Selected comments**

#### **MEU**

'A 5% increase year on year.'

'Both gas and electricity are set for modest rises although it depends where your starting point [was] in the past couple of years.'

'Don't see any significant reductions over [the] next three years.'

'Expect further decrease and then flattening out.'

'Expect prices to increase at average 5—10% per annum.'

'Expect to plateau after next increase of 15%.'

'Gas is now relatively stable compared to two years ago. Electricity looks overpriced.'

'It is likely that the next rise will be significant but timing of the deal is key, and the fluctuation is such an enormous variable.'

'It's looking worrying not for next year but the year after.'

#### 1.11 Expected increase or decrease in company energy costs over the next three years

	SMEs (4)	SMEs (5)	MEUs (4)	MEUs (5)	All (4)	All (5)
Predicting increase (number of companies)	65	32	22	72	87	104
Average of increases	22.3%	13.9%	22.4%	6.7%	22.3%	8.9%
Predicting no change (number of companies)	-	11	48	3	48	14
Predicting decrease (number of companies)	10	8	22	12	32	20
Average of decreases	18.4%	12.1%	9.1%	8.1%	12.0%	9.7%
Don't know (number of companies)	25	49	8	13	33	62
Overall change predicted	+16.9%	+6.8%	+3.2%	+4.4%	+9.3%	+5.3%

- Looking further ahead, the overall prediction of all companies is that energy costs will increase by 5.3% over the next three years, a significant drop on the previous forecast of 9.3% twelve months ago.
- Those expecting energy cost rises expected they would do so by 9%, while those expecting lower energy costs said the average decrease would be 10%.
- A majority of companies (52%) expect an increase in energy costs, including 32% of SMEs and 72% of MEUs.

■ 12 13 **■** 

#### Commentary

Following volatility in energy prices in the last two years, the fifth nBEI showed that, during 2007, energy costs stabilised for most energy users and represented a smaller percentage of total operating costs. Whereas, in nBEI4 (published in February 2007) energy represented an average of 12.2% of overall operating costs, this dropped to 9.4% by late 2007. This is the lowest figure reported since the first nBEI in summer 2005 when energy costs represented an average of 7.6% of operating costs.

More respondents say that their energy costs decreased rather than rose during 2007: 29% report a reduction; 23% report an increase. This is a marked difference to nBEI4 when only 9% of businesses reported a decrease in costs and 61.5% said they had seen energy prices rise. The most common response is that prices during 2007 remained static, reflecting greater stability in the wholesale market during 2007. Over a third (36%) of small- to medium-sized enterprises (SMEs) and 31% of major energy users (MEUs) said that prices were roughly the same during 2007 as in winter 2006.

Of those companies that did experience an increase in energy costs in 2007, it is a much lower rise than in any of the previous four nBEIs. The average increase this time was 18%, down from 35% in nBEI4 and 46% in nBEI3.

Movement in global fossil fuel prices is cited as the most significant underlying cause influencing energy costs, with an average rating of 6.6 out of 10 in terms of significance. In this latest report we also see the re-emergence of the perceived influence of environmental regulations and obligations on energy prices. SMEs regard this as the most important cause of rising energy costs (rated 5.97 out of 10), whilst for MEUs it is

the second most important at 6.25 out of 10, second only to fossil fuel price movement. Environmental obligations have not been considered one of the two main underlying causes since nBEI3 in summer 2006.

While some businesses report a decrease in profitability as a result of energy costs, the overall trend suggests that energy is having less of an impact on profitability than at any time in the last two years. A number of companies said they had become more profitable, sometimes because they had invested in more efficient equipment in response to high energy costs: 14% of MEUs and 16% of SMEs report an increase in profitability.

The differing experiences of businesses are reflected in their opinions over future energy costs. Those companies predicting increases in energy costs outnumber those predicting decreases by a ratio of 3:1, but the average anticipated increase is 3.1% over the next six months, significantly lower than the 8.5% increase expected at the time of nBEI4.

Looking forward to the next three years, there is an average anticipated increase of 5.3% compared to 9.3% in the last nBEI. Unlike short term price increases, this optimism is largely driven by SMEs, which predict that the average price increase will be 6.8% in the next three years compared to a prediction of 16.9% in 2006. MEUs, on the other hand, expect prices will increase by 4.4% by 2010 compared to 3.2% twelve months ago.

Despite the increases predicted, nBEI5 gives an overall sense that energy prices are having less of an impact on business operations than at any other time in the last two years. While both SMEs and MEUs report that energy is influencing profitability, it is at lower ratios than in the previous two reports.

We are also seeing a broader awareness of factors that govern rises in energy price, whereas previously this was the reserve of MEUs. This is again indicative of a move toward an improved understanding of energy in order to better manage prices and consumption.

Overall, while still feeling the influence of fluctuations in energy price, more and more businesses are showing a desire to take control of costs, mitigating the risks they face rather than falling victim to them.

npower Business Energy Index – Winter 2007—2008

## **Section 2: Energy Management**

Respondents were asked to rate energy management and reducing energy consumption in terms of its importance to their business, and their own performance in implementing energy efficiency measures. Where possible, these results were benchmarked against the results of the previous indexes.

#### 2.1 Significance attached to energy management and reducing energy consumption

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

	(1)	(2)	(3)	(4)	(5)
Average – SMEs	5.8	5.7	6.0	6.5	6.1
Average – MEUs	8.0	7.8	8.2	8.1	7.8
Average – All	7.1	7.2	7.6	7.3	7.0

- Energy management and the reduction of energy consumption continues to be a significant issue – with an overall average rating of 7/10 – but less so than in the previous four indexes.
- It is of greater significance to MEUs (who rate it 7.8/10 on average) than to SMEs (who rate it 6.1).

#### 2.2 Significance attached to energy management (rating 1-10)

(Winter 2007/2008; all companies)

- 1 4.5%
- 3 2.59
- 4 6%
- 5 11.5%
- 6 7%
- 6 7%
- 0 12 5%
- 10 17%
- The most popular response to this question was again a rating of 8/10 (given by 20% of all companies), followed by a rating of 10/10 (by 17% of companies).
- A majority of all respondents (51%) rate energy management as 8, 9 or 10 out of 10 for significance.

#### 2.3 Steps taken to increase energy efficiency - last six months (%)

	SMEs (5)	MEUs (5)	All (5)
Introduced monitoring software	27	39	33
Changed heating/lighting	36	70	53
Changed equipment	44	63	54
Requested information	40	66	53
Other	14	7	11
Taken no steps	38	9	24
One or more of steps above	62	91	77
At least three steps	29	52	41

- A significant majority of companies (77%) have taken steps to increase their energy efficiency during the last six months. This proportion is much higher for MEUs (91%) than SMEs (62%).
- Indeed, a majority of MEUs (52%) have recently taken three or more actions designed to increase their energy efficiency.
- A surprisingly high 38% of SMEs report taking no steps to increase their energy efficiency during this period.
- The most popular action for MEUs was changing their heating/lighting; for SMEs it was changing their equipment/technology.

■ 16 17 ■

npower Business Energy Index - Winter 2007—2008

#### 2.4 Significance attached to energy management (rating 1—10)

	SMEs (5)	MEUs (5)	All (5)
Introduced monitoring software	4.67	6.32	5.63
Changed heating/lighting	7.06	5.82	6.25
Changed equipment	6.59	6.65	6.63
Requested information	5.78	6.27	6.08
Other	7.00	5.83	6.65

# What steps has your company taken in the last six months to reduce energy consumption and increase energy efficiency?

#### **Selected comments**

#### **MEUs**

'Across the group we have a variety of projects, with new chillers, variable drives, enhanced lighting controls and loads more for 2008.'

'Currently carrying out interesting trials for industrial processes – lots of future value. We receive funding from the Carbon Trust.'

'Investment in new technology made about 12 months ago. Monitoring over last three years.'

'Our boiler replacement programme has already saved us £200k.'

'Our new stores have solar hot water systems.
Older stores are too expensive to retrofit.'

'Process equipment technology [is] most important as it has greatest impact on overall cost.'

'Review of BMS, focus to cut out more waste, higher levels of staff awareness.'

'The low hanging fruit has long gone.

We have found instances where we have changed old motors for supposedly more efficient ones to discover that they actually consume more power and cause more issues for us in the change over, so not necessarily beneficial.'

'The monitoring software is installed but it is not used fully by all the people involved.'

'We are doing a lot more monitoring and targeting.'

'We're looking at software as part of a 20 point action plan from [the] Carbon Trust.'

#### 2.5 Measurement of energy efficiency (%)

	SMEs (5)	MEUs (5)	All (5)
Energy supplier does it	19	20	20
External audits	15	55	35
Internal audits	28	83	56
Other	5	14	10
No measurement	46	3	25

 Almost all MEUs measure their energy efficiency – just 3% reported not doing so.
 However, a very high number of SMEs (46%) said they currently had no formal method for measuring energy efficiency.  As in the previous survey, internal audits are the most popular tool for measuring energy efficiency, for both SMEs (28%) and MEUs (83%). Overall, 56% of companies used this method.

## Does your company measure its energy efficiency using any of the following methods?

#### Selected comments

#### MEUs

'[We use] energy auditing and benchmark [at] all factories. Every factory has its own energy champion.'

'Energy efficiency features highly in our sustainability initiative. We publish energy consumption data as part of our corporate responsibility reports.'

'[Our] energy supplier records data but we undertake our own audits.'

'It has changed significantly in the past couple of years. We have a committee chaired by a senior director which looks at our overall sustainability footprint.' 'We are a part of the Carbon Trust's corporate campaign so they have to know what's what.'

'We are independently audited as part of three schemes – CHPQA, [EU] ETS and CCL.'

'We had the Carbon Trust here in 2005 and now the senior managers are finally waking up to this. It will move up the priority scale soon.'

'We have a firm of environmental consultants who undertake our CSR audit.'

'We have an Energy Committee to review site performances, but do not audit as such.'

'We have internal metering and monitoring and [our] own performance history.'

'We have to keep annual records for auditing and reporting for EU ETS.'

'We look at energy efficiency when considering new equipment.'

#### 2.6 Measurement of energy efficiency (%)

(Winter 2007/2008; all companies)

Energy supplier does it
External audits
Internal audits
Other

No Measurement

20% 35% 56% 10%

**■** 18 19 **■** 

### 2.7 What approximate level of energy savings would be technically available for your business? (MEUs only %)

	MEUs (5)
About 5%	15
About 10%	24
About 20%	7
About 30%	6
Other	26
Don't know	22
Average for those saying "Other"	15.61
Weighted overall average	13.34

 On average, major energy users believed they could make savings of 13.3% of their energy costs.

### 2.8 By how much have you managed to reduce your energy consumption in the last 12 months? (%)

	SMEs (5)	MEUs (5)	All (5)
Nil	45	15	30
Less than 5%	18	27	23
Less than 10%	4	2	3
Less than 20%	7	6	7
Don't know	17	12	15
Exact percentage given by:	9	38	24
Average of exact percentages:	9.9	11.5	11.3
Weighted average of all companies:	3.2	6.9	5.2
Weighted average of those who have reduced			
energy consumption	7.1	8.3	8.0

- SMEs have been much less successful in reducing their energy consumption in the last 12 months: only 55% have been able to do so, compared to 85% of MEUs.
- Those who did manage to reduce their energy consumption did so by 8% on average: 7.1% for SMEs and 8.3% for MEUs.

#### 2.9 Do you need external advice / support on the following? (%)

	SMEs (4)	SMEs (5)	MEUs (4)	MEUs (5)	All (4)	All (5)
Energy management / efficiency	20	41	52	59	36	50
Energy saving capital allowances	24	49	59	47	42	48
Reducing / managing carbon emissions	17	43	55	69	36	56
Other	4	5	3	6	4	6

 MEUs are most in need of external advice concerning reducing and managing carbon emissions (this was the case for 69% of MEUs).
 For SMEs it is advice on energy saving capital allowances (49%).

#### 2.10 ...and how important would that advice be? (Rated out of 10)

	SMEs (4)	SMEs (5)	MEUs (4)	MEUs (5)	All (4)	All (5)
Energy management / efficiency	7.06	6.10	6.04	5.37	6.19	5.67
Energy saving capital allowances	7.55	6.24	5.47	4.72	5.85	5.50
Reducing / managing carbon emissions	6.44	6.16	5.75	5.46	5.84	5.73
Other	3.33	8.40	7.00	7.17	6.44	7.73

 SMEs rate the importance of advice as more significant than MEUs for each issue.

# Do you need external advice and/or support and how important would this advice be? What advice is most important, and why?

#### **Selected comments**

#### **SMEs**

'Advice on energy management systems and their implementation. We've already acknowledged that we don't have the skills or the manpower to do that and we're prepared to pay for it.'

'On energy efficiency... well if it's going to lower our utility bill that would be beneficial.'

'Energy management. It's generally the quickest way in saving energy and cost.'

'Energy saving. Because that has got the potential for the biggest payback.'

'I wouldn't think any external advice is important.'

'Managing carbon emissions. Because of the impact on the environment.'

'Managing carbons, because we don't know anything about it.'

'Most important advice is getting out of the Government's costs. The Government is costing us too much in what they're asking us to do.'

'Reducing energy consumption. I can't think where else to go, we have efficient machinery and equipment already.'

#### **MEUs**

'Advice which is specifically tailored to our business.'

'Carbon emissions – we recognise that we can benefit by gaining insight from experiences in other industries.'

'Carbon management is most important, but largely for political purposes.'

'[It's] difficult to get neutral advice.'

'Energy management is the key to controlling costs.'

'External advice to date has not been sufficiently specific for steel sector.'

'Not unless you know someone we haven't met before.'

'The energy market in Europe is so skewed it is difficult to make direct comparisons, anyone who can help with this would be useful.'

'[It would be] useful to have input from experts but we don't need our hands holding completely.'

'We actually have a lot of the knowledge, it's money that we need.'

'We don't need help but extra info is always useful – carbon emissions data.'

'We have used the same firm of consultants for ten years and they do a fantastic job for us.'

'We need more in-depth analysis, which seems difficult to find.'

#### 2.11 From where would you prefer to receive advice? (Rated out of 10)

	SMEs (4)	SMEs (5)	MEUs (4)	MEUs (5)	All (4)	All (5)
Energy consultants and advisors	3.91	4.14	4.12	4.04	4.02	4.09
Energy suppliers	4.53	4.29	3.61	2.94	4.06	3.62
Equipment suppliers	4.31	4.64	3.98	3.41	4.14	4.03
NGOs (e.g. Carbon Trust, Energy Savings Trust)	4.58	5.10	5.46	5.52	5.03	5.31
Other	6.81	5.00	2.83	6.31	3.38	5.71

- Both SMEs and MEUs were most keen to receive advice from NGOs, such as the Carbon Trust or the Energy Saving Trust.
- SMEs were least keen to receive advice from energy consultants and advisors (rated 4.1/10).

#### Some questions exclusively for SMEs

2.12 Do you rent or own your premises? If you are a tenant has your landlord taken any steps to improve the energy efficiency of your building and help you to reduce your energy costs? (%)

	SMEs (5)
Percentage of SMEs renting premises	39
Percentage of SMEs owning premises	61
Percentage of tenants whose landlord has improved energy efficiency of the building	41

Most SMEs owned their own premises (61%).
 Of those who do not, 41% said that their landlord had taken steps to improve the energy efficiency of their building.

Has your landlord taken any steps to improve the energy efficiency of your building and help you to reduce your energy costs?

#### **Selected comments**

#### Yes

'Lagging of the roof, double glazing.'

'We've got new equipment. New boilers, new heating etc.'

#### No

'Because he doesn't want to spend the money. That's why.'

'He just leaves that to us. He just charges us the rent and that's it.'

'It will cost him money, why should he do it?'

'There is not much more you can do with the building to make it more energy efficient.'

'They probably don't know how to do it.'

'We are responsible for the upkeep of the building.'

## 2.13 Which of the following types of "Quick-Win" efficiency measures would give the biggest payback? (%)

	High	Low	Don't know
Monitoring consumption more regularly	21	60	19
Introducing equipment meters	13	67	20
Lights are not on when not needed	38	59	3
Equipment is off when not needed	48	47	5
Use more efficient equipment	58	37	5
Use more efficient lighting/heating	58	37	5
Heat loss from the building is minimised	51	44	5
Educate staff in energy efficiency	45	50	5

- The "Quick-Win" efficiency measures thought to give the biggest payback were, in order: using more efficient equipment, using more efficient lighting/heating, and minimising heat loss from buildings.
- The measures thought least likely to provide payback included introducing equipment meters, monitoring consumption more regularly, and turning lights off when not needed.

## 2.14 Are you aware that the Carbon Trust has a scheme to provide interest free loans for investment in energy efficiency measures? (%)

	SMEs (5)
Yes	53
No	47

#### 2.15 Do you have the resources to invest in energy saving initiatives? (%)

	SMEs (5)
Management time – Yes	35
Cash resources – Yes	44
Both time and resources – Yes	33

#### Some questions exclusively for MEUs

#### 2.16 Are you able to allocate your energy costs by usage? (%)

	MEUs (4)	MEUs (5)
Yes	71	76
No	29	24

 A clear majority (76%) of major energy users said they were able to allocate their energy costs by usage, up from nBEI4 last winter.

Are you able to allocate your energy costs by usage? e.g. to space heating, hot water, air conditioning, chilling/refrigeration, process heating, machinery, lighting?

- No, why not? - MEUs

#### **Selected comments**

'Currently have very few meters on site.
We are looking at metering at present.'

'No measurement takes place, there is no infrastructure for it.'

'No sub-metering.'

'Only on some sites – we are looking at zoning to larger main areas where economies can be made.'

'This is possible only in some new buildings.'

'We are introducing a fleet of additional sub-meters to improve on this.'

'We are introducing and upgrading more monitoring, but it's a big estate.'

'We don't look at metered breakdowns across [the] whole portfolio but take representative samples.'

## 2.17 How would you rate the feasibility of introducing changes to your business to achieve a substantial reduction in energy consumption? (Rating out of 10)

	MEUs (4)	MEUs (5)
Reduced lighting	4.55	4.48
More staff working from home	2.41	2.37
Major change in manufacturing processes	3.56	3.49
Relocate activities overseas	3.00	2.05
Other	2.82	7.40

 As was the case a year ago in nBEI4, the suggested changes scored low ratings for feasibility. Of the four options, both MEUs and SMEs rated reduced lighting as the most feasible.

### 2.18 Do you consider that the following promote their services and/or product in a manner helpful to your business? (%)

	MEUs (4)	MEUs (5)
Energy consultants and advisors	46	59
Energy suppliers	32	38
Equipment suppliers	51	54
NGOs (e.g. Carbon Trust, Energy Savings Trust)	67	87
Other	2	5

 As in nBEI4 a year ago, NGOs were considered the most likely to promote their services in a manner helpful to businesses. This preference for NGOs has risen strongly, with 87% of MEUs considering them helpful, up from 67%.

# Do you consider that the energy efficiency services and/or products of any of the following are helpful to your business? Selected comments

#### **MEUs**

'For the types of projects we are looking at there should be some expertise out there.'

'Generally it's other people within the group that have the best thoughts.'

'I think that you would need someone who would be impartial.'

'Ideally the energy suppliers should be most helpful source.'

'Energy companies aren't that good, we are wary of many consultants and suppliers are too standardised. We need the difference.'

'More cynical about consultants.'

'My view with energy suppliers is that their role is good account management, accurate billing, good contracts and good registration for billing. Stick to the focus. Our consultants ensure compliance, accuracy and implementation of some [of] our policies.'

'No real preference where help comes from as long as it is useful.'

'Prefer independent advice compared to those with more vested interest.'

'The Carbon Trust have been very helpful but we have specific technologies which mean limited general knowledge.'

'The Energy Information Centre is quite good for us.'

'We've done lots of good work with the Carbon Trust.'

'We've had all the advice but have been unable to afford the recommended changes.'

■ 24 25 ■

npower Business Energy Index - Winter 2007—2008

#### 2.19 Do you employ staff full time for energy management? (%)

	MEUs (4)	MEUs (5)
Yes	60	69
No	40	31

 More MEUs now employ staff full time for the purposes of energy management, up from 60% a year ago to 69% now.

#### 2.20 Is CHP applicable to your business? (%)

	MEUs (4)	MEUs (5)
Yes	43	48
No	57	52

 There is a roughly equal split between MEUs claiming that CHP is not applicable to their business, and those who say it is.

#### 2.21 What proportion of your energy cost is related to building services or industrial processes? (%)

	Building Services	Industrial Processes
Less than 10%	54	32
Less than 20%	4	0
Less than 30%	2	2
Less than 40%	2	1
Less than 50%	1	3
More than 50%	37	62

 MEUs are polarised when it comes to the proportion of their energy cost related to both building services and industrial processes: in each case the proportion tends to be either less than 10% or more than 50%, reflecting the nature of their business.

#### 2.22 Do you employ building and/or process energy management systems? (%)

	MEUs (4)	MEUs (5)
Yes	72	73
No	28	27

 A stable and clear majority of MEUs (73%) said that they used building and/or process energy management systems.

## Do you employ building and/or process energy management systems?

#### No - Why not?

#### **Selected comments**

#### MEU:

'Because of the diversity and large number of properties.'

'Building energy costs are an extremely small proportion of overall costs.'

'Cost/benefit balance – long term pay-backs are not attractive.'

'It is not practical in our company.'

'Process management systems are carried out by individual product management teams.'

'Remote control systems are available but costly to introduce.'

'We are not that sophisticated.'

'We have never considered it.'

'We use external people to manage this.'

2.23 Has compliance with climate change agreements resulted in significant and permanent energy savings or process improvements for your company? (%)

	MEUs (4)	MEUs (5)
Yes	50	56
No	50	44

 A small majority of MEUs (56%) believed that compliance with climate change agreements had resulted in their having significant energy savings or process improvements.

#### Commentary

Energy management continues to be an important issue for businesses, but less so than at any other time in the last three years. This comes despite reports that many businesses are taking steps to improve energy efficiency. This nBEI reveals a difference of opinion in energy management – many businesses see energy efficiency as highly significant while others, particularly SMEs, appear to be now relegating it following a trend of improvement in the last two years.

The reasons for this disparity are not immediately clear from the research, but both lowering costs and work already undertaken to improve energy efficiency could be influential factors. As we have seen from the previous section, businesses reported to be feeling less cost pressure in energy use in 2007, which could be reducing the need in some businesses to instigate efficiency measures. Others may have made many improvement measures already and are waiting for the payback for these before making more.

What is clear is that energy efficiency is considered of greater importance to MEUs, who give it a rating of 7.8 out of 10, compared to SMEs who rate it at 6.1 in terms of its significance for their businesses. In line with a general downturn in the importance of energy efficiency, these ratings are lower than reported in the last nBEI, in which MEUs rated it at 8.1 and SMEs at 6.5.

While it would be easy to lament this downward trend, to do so would undermine much of the positive response to energy efficiency at this time. While the average rating given to the importance of energy management is down, this is influenced by a number of businesses that give it a rating of only five or less out of 10 in terms of its significance. A majority of respondents (51%) still rate energy management and reducing energy consumption as 8, 9 or 10 out of 10 for significance to their business.

The disparity in energy efficiency between MEUs and SMEs is mirrored in the steps businesses are taking to increase energy efficiency. MEUs out-perform SMEs by a considerable margin, with 91% having made energy improvement measures in the last six months, compared to only 62% of SMEs. Changing equipment or technology becomes the most popular step taken to improve energy efficiency in nBEI5, just ahead of changing heating and lighting, which is now the second most popular action taken, together with requesting information.

Following a significant improvement in energy monitoring reported in nBEI4, this report reveals that businesses are not monitoring consumption in the same numbers. Only 75% say they measure consumption in nBEI5, compared to 93.5% in the last index. MEUs continue to be the dominant sector in this discipline with only 2% not monitoring energy use, with a surprisingly high 46% of SMEs stating they had no formal method of energy efficiency measurement. Despite the mixed response to energy monitoring, businesses do report achieving reductions in energy consumption in the last year with nearly a quarter (23%) of respondents confirming they have made reductions of some 5%, and 7% reporting reductions of 20% in consumption. A quarter of MEUs (24%) also believe that further energy savings of 10% could be technically possible, with a further 7% believing they could achieve savings of 20%, and 6% saying 30% is possible. How these will be achieved is less clear. Changing lighting was only given a rating of 4.48 out of ten in terms of feasibility in reducing energy consumption and major changes in manufacturing processes a rating of only 3.49. However, 73% of MEUs now use building management systems that can help contribute to improved energy consumption.

To enact further savings, it is clear from nBEI5 that businesses would benefit from guidance from outside organisations. Both SMEs and MEUs agree to needing advice on energy management with 50% giving this answer. Impartiality seems to be an important consideration in receiving this advice with NGOs considered the most popular source of information.

SMEs rate the importance of advice as more significant than MEUs, but also report having neither the time nor the financial resources to invest in energy saving initiatives with 67% giving this answer. By contrast, 69% of MEUs now have full time staff to manage energy, up from 60% in nBEI4.

For the first time we also see the reduction of emissions emerging as a business goal, with this now being the issue that most businesses (56%) feel they would benefit from having advice on. For MEUs this could be influenced by the fact that over half (56%) agree that compliance with climate change agreements has resulted in permanent and significant energy savings in their company.

We are seeing an increasing polarisation between MEUs and SMEs when it comes to energy management. While this can perhaps be partly explained by the fact that energy costs typically make up a larger percentage of MEUs' operating costs, the MEU sector appears to be more willing and have better resources to continue improving energy efficiency. SMEs, by contrast, are taking less of an interest in energy efficiency than in previous reports with their calls for external advice indicating that they lack the knowledge or resources to make on-going improvements.

■ 28 29 ■

npower Business Energy Index – Winter 2007—2008

## **Section 3: Carbon Emissions**

The final topical section of this npower Business Energy Index, open to both SMEs and MEUs, focuses on ascertaining industry perceptions and opinions relating to carbon emissions.

## 3.1 Do you support the UK Government's commitment to reducing carbon emissions? (%)

	SMEs (5)	MEUs (5)	All (5)
Yes	81	94	88
No	19	6	13

 A strong majority of respondents support the Government's commitment to reducing carbon emissions, with MEUs (94%) being more supportive than SMEs (81%).

## Do you support the UK Government's commitment to reducing carbon emissions? If no, why not?

#### **Selected comments**

#### **SME**

'No, because I think a lot of it's a con. I think what we do in the UK in a year, China does in a day. I think it's just an excuse to raise taxes on us. Unless the whole world works together we won't make a lot of difference.'

'No, because I think we're such a small country. I don't think we make a big difference, compared to what China and the US are putting out.'

'I don't think they do any good. I don't think effectively the UK can make any difference.'

'It's a total hollow lie. It's about taxation, increased state control, and intervention. You've got a government that's obsessed [with] controlling people's lives.'

'Personally no. I think the damage was done a long time ago. We've already done our best to eliminate it and I think it won't repair itself.'

'The company doesn't back anything like that.'

#### MFIIc

'I support it in principle but not in terms of the actual details.'

'I think it is a lot of waffle – a diversion from main issues. It's just the flavour of the month.'

'It penalises companies that are already reducing carbon emissions, and it gives no credits to those large companies that use off-site energy already.'

'Only if this is in line with the rest of the world and if others do the same.'

'We are doing our bit. The project this year has saved us £200k but also 1200 tonnes of carbon per year.'

'Would be more supportive if the rest of the world joined in.'

3.2 Do you believe that the combination of a) Climate Change Levy, b) Emissions Trading Scheme, and c) the proposed new Carbon Reduction Commitment places an undue burden on UK business? (MEUs only %)

	MEUs (5)
Yes	75
No	25

 Three-quarters of MEUs thought that the combination of these three schemes places an undue burden on UK business.

Do you believe that the combination of a) Climate Change Levy, b) Emissions Trading Scheme, and c) the proposed new Carbon Reduction Commitment places an undue burden on UK business? – If YES, why?

#### **Selected comments**

#### MEUs

'A lot of countries with which we compete are not taking the same action.'

'Although I agree with the overall aim the system is unwieldy.'

'Because I don't believe a similar burden is placed on our competitors.'

'Because there is no level playing field between the UK, Continental Europe and the rest of the world, which means we may be disadvantaged.'

'Companies don't do things on a moral basis. I don't for one minute think that customers will buy from us just because we could say we're green.'

'[The] costs of enforcing this regulation are high but this can't be passed on to consumers, and it makes us uncompetitive compared to other countries.'

'CRC has been both rushed and pushed through, consequently it has a huge number of flaws in it.'

'For us – a high energy user – it will just mean additional cost.'

'I don't see that green taxation is on a similar level in other countries. We pay £800,000 a year because of it.'

'It is being thrust down our throat. We are very concerned about CRC. It's more red tape, more hassle and generally bad news. It isn't good for manufacturing.'

'It is pure taxation with no payback. We are actually prevented from trying to pass it on.'

'It's a bit messy with three different schemes. If you were a consultant and up to speed you could make a fortune.'

'It's ridiculous that companies who follow good practice get nothing back from CCL.'

'Taxation is not the best means of reducing carbon emissions.'

'The amount of time it takes is expensive.

It is expensive to train up people to do it.'

'The rest of the world isn't undertaking these initiatives.'

'This is an ill-conceived and very poorly thought out tax.'

'This will kill businesses. The prospect of payments being over three financial years before any sort of balancing return will cripple many businesses.'

npower Business Energy Index - Winter 2007—2008

Do you believe that the combination of a) Climate Change Levy, b) Emissions Trading Scheme, and c) the proposed new Carbon Reduction Commitment places an undue burden on UK business? – If NO, why not?

#### **Selected comments**

#### **MEUs**

'Although there is a cost outlay, some savings will be seen both for the company and in environmental terms.'

'Because the corporate aim to reduce carbon emissions should be important for all businesses.'

'[The] burden is mainly administrative at [the] moment, rather than financial.'

'Efficiency in these areas can be built into the whole organisational system and will offset costs and then lead to savings.'

'For us it has been more procedural. If we hadn't done it we would have been spending £2.5m p.a. and the business would have collapsed. It was a wake-up call.'

'I'm completely for all these schemes as they help us reduce our own consumption.'

'It is only a burden at the beginning, once it is running it is no burden.'

## Do you expect that reducing your carbon footprint would provide your business with new commercial opportunities? YES – What?

#### **Selected comments**

#### SME

'Environmentally friendly products.'

'I think it would show to prospective customers a greener and more environmentally friendly company.'

'I think you would attract different customers.'

'I would think it would maybe improve sales.'

'Our customers are large aircraft organisations and they will, in the future, only be doing business with companies who take this action.'

'To the marketplace in general because it's now become a point of sale to potential customers.'

'Well, [it] would reduce our cost on the end user, hopefully.'

#### MEU

'A lot of our customers are getting more environmentally conscious and want to do business with environmentally aware businesses.'

'As part of the sustainability plan, which portrays the company as a responsible supplier.'

'Because there will be requests for environmental goods.'

'Energy reduction can be used as a benefit against competitors.'

'If we generate a carbon footprint image that shows us as a green company.'

'[It will] impact on research and teaching; good PR, and [it] will help attract research funding.'

'It helps us to win more contracts as a carbon friendly company.'

'It may generate more revenues through investing our savings in energy projects.'

'Many of our customers are in the same arena with [the] same focus and they ask us about our energy commitments. It is now part of the sales process!'

'Not necessarily commercial but will enable us to demonstrate we are acting responsibly for the community.'

'Politically – we can play on [the] social responsibility angle. Lead by example.'

## 3.3 Do you expect that reducing your carbon footprint would provide your business with new commercial opportunities? (%)

	SMEs (5)	MEUs (5)	All (5)
Yes	24	47	35.5
No	76	53	64.5

 On the whole, just over a third of businesses anticipate new commercial opportunities as a result of reducing their carbon footprint – an expectation held by more MEUs (47%) than SMEs (24%).

### 3.4 Would your business/operation be affected by the proposed new Carbon Reduction Commitment? (MEUs only %)

	MEUs (5)
Yes	68
No	32

- If YES, do you agree or disagree that:	Agree	Disagree	Don't know
CRC would deliver emissions reductions of 1.2 mtc by 2020	48	17	35
The costs of CRC will outweigh the benefits	63	15	22
The public sector will fare badly compared to businesses	62	19	19
CRC will make UK business uncompetitive	71	16	13

 68% of MEUs believe their company will be affected by the new Carbon Reduction Commitment.  Of these, nearly two-thirds thought the CRC's costs would outweigh its benefits, and 71% said it would make UK business uncompetitive.

33

## 3.5 Are you as a business willing to pay a premium for energy which reduces $CO_2$ emissions? (SMEs only %)

	SMEs (4)	SMEs (5)
Yes	38	51
No	57	49
Don't know	5	0

 SMEs are more willing than before to pay a premium for energy that reduces CO<sub>2</sub> emissions (up from 38% in 2006 to 51% in 2007).

#### 3.6 ...If Yes, then what level of premium would be acceptable? (%)

	SMEs (4)	SMEs (5)
Less than 5%	50.0	88.2
Less than 10%	31.6	9.8
Less than 20%	5.3	2.0
Less than 30%	5.3	0.0
Don't know	7.9	0.0

- Of those SMEs prepared to pay such a premium, 88% said they would be willing to pay no more than 5%.
- Far fewer SMEs are willing to pay a premium of between 5%—10% than this time last year: down from 32% to 10%.

Are you as a business willing/prepared to pay a premium for energy (e.g. wind, nuclear, gas powered generation, clean coal) which reduces CO<sub>2</sub> emissions? Selected comments

#### SMEs - Yes

'As long as it's not too expensive.'

'[It] depends on the level of the premium.'

'I think we'd have to see some specific proposals. But yes, we would be willing to pay a small premium.'

'If it's not too expensive, because it's helping to save the environment.'

'In the future it's going to be [a] significant cost if we don't take the action now.'

'Yes, less than 5% probably.'

#### SMEs - No

'I don't agree with it. Why try to reduce CO<sub>2</sub> emissions? Try planting trees instead of chopping them down.'

'I don't trust the figures. They can't prove that we make any kind of difference.'

'Because I think we pay quite enough.'

'Because I've got a duty to keep my company running.'

'The company doesn't believe in paying for that sort of thing.'

'The premium that we pay does not reduce carbon emissions.'

'Because I want to go for the cheapest energy possible from anywhere.'

'Because I'm competing with other European countries that don't.'

'The industry which we're in is extremely competitive so we don't have the luxury of reducing our margin by paying for greener energy.'

### 3.7 What premium are you willing to pay for energy sources that reduce ${\rm CO_2}$ emissions? (MEUs only %)

	N. D	F0/	E0/ 100/	1.00/
	No Premium	<5%	5%—10%	>10%
Wind Power	70	23	6	1
Nuclear Power	83	16	1	0
Gas Power	85	14	1	0
Clean Coal	82	16	2	0
Combined Heat and Power (CHP)	79	18	3	0

 MEUs would be most likely to pay a premium for energy from wind power: 30% said this was the case. Only 15% would pay a premium for gas power that reduced CO<sub>2</sub> emissions.  A clear majority of those willing to pay a premium would pay no more than 5%.

Are you as a business willing/prepared to pay a premium for energy (e.g. wind, nuclear, gas powered generation, clean coal) which reduces CO<sub>2</sub> emissions?

#### Selected comments

#### MEUs

'At present we're trying to buy energy at [the] cheapest possible rate. In [the] future we may pay up to 5% more from 'greener' sources.'

'[An] awkward question... we concentrate our spend on energy reduction rather than supporting premiums for green energy.'

'In contract negotiations we look for the best deal, rather than renewable sources.'

'Should be able to source green energy at prevailing market prices.'

'We are investing in our own wind power but not prepared to pay extra.'

'We are more interested in controlling costs than appearing to be green.'

'We may invest in cleaner sources but expect to generate savings. We may invest in wind power but will generate our own.'

'We'll perhaps pay a small 1—2% premium for green energy but we are concerned that this does not really address the issue and we prefer to invest in other means of improving overall environmental performance. Buying green energy has only limited impact, but enables some companies to hide behind an image of social responsibility.'

3.8 Are you aware that suppliers are obliged to help residential customers reduce their energy consumption under the Energy Efficiency Commitment? (SMEs only %)

	SMEs (5)
Yes	39
No	61

### 3.9 Should the Government extend the current suppliers' Energy Efficiency Commitment scheme to SMEs? (SMEs only %)

	SMEs (5)
Yes	77
No	23

## 3.10 Would you be prepared to sign up to a minimum five year contract if the suppliers would help improve your energy efficiency? (SMEs only %)

	SMEs (5)
Yes	56
No	44

Would you be prepared to sign up to a minimum five year contract if the suppliers would help improve your energy efficiency? NO – why not?

**Selected comments** 

#### **SMEs**

'Because I don't believe it will last five years.'

'Because I wouldn't commit to anything for five years with an energy supplier.' 'Because I wouldn't sign anything for five years. It's too long.'

'Because it locks me in for a long time and energy prices change very quickly.'

'Depends on the scale of returns. If it was a two way contract.'

'I don't believe in signing up that far ahead. Who knows the future?'

#### 3.11 Would you be prepared to share the costs with energy suppliers of the following? (SMEs only %)

	Yes	No	Don't know
The provision of "real-time" smart metering facilities	29	57	14
Energy advice and on-site surveys	36	59	5
Investment in more efficient heating, lighting and			
process equipment	56	38	6

 A majority of SMEs (56%) would be prepared to share with energy suppliers the costs of investment in more efficient heating, lighting and process equipment.

What for your company is the biggest and most important barrier to improving your energy efficiency and reducing energy consumption?

#### **Selected comments**

#### **SMEs**

'Bad government advice.'

'Cost. Finding the cashflow to do that.'

'Fuel costs on transport.'

'Government legislation and councils.'

'I suppose management time, because we're fairly stretched with staff.'

'I think we have reduced it as much as we can.'

'I would imagine the efficiency of our machinery.' 'It's knowledge.'

'It's probably equipment and the cost of updating equipment.'

'Limitations on manufacturing facilities.'

'Manufacturers of the machinery that we purchase.'

'Probably employees.'

'Probably just the cost involved in monitoring everything.'

'Probably the fact that the building is 30 years old.'

'The fact that we have to change the air in our factory. We have to comply with health and safety in our working area.'

**■** 36 37 **■** 

#### 3.12 How do you think the UK is performing in terms of reducing carbon emissions? (%)

	SMEs (4)	SMEs (5)	MEUs (4)	MEUs (5)	All (4)	All (5)
Leading the rest of the world	25	26	36	27	30.5	26.5
Following behind the rest of the world	18	18	20	31	19	24.5
Keeping up with everyone else	48	36	40	38	44	37
Don't know	9	20	4	4	6.5	12

- For both SMEs (36%) and MEUs (38%) the most popular view is that the UK is keeping up with everyone else in terms of reducing carbon emissions.
- Fewer businesses now believe that the UK is leading the rest of the world in terms of reducing carbon emissions: down from 31% of companies a year ago to 27% now.
- More companies (now 25%) say that the UK is behind the rest of the world.

## How do you think the UK is performing in terms of reducing carbon emissions?

#### **Selected comments**

#### MEU

'Another classic government blunder of not thinking through the consequences and the impact of one area on another.'

'Better than some but not others.'

'Close to the front of a not very impressive group.'

'For the future I think we will lag behind.'

'Government is targeting [the] wrong areas in business and should focus more on domestic usage. [I] have read that distributing free energy efficient light bulbs to [the] whole population could save more energy than could be produced by a new nuclear power station.'

'If you were to compare us to the US, China and India then I suppose we're pretty average.'

'It's always Britain that climbs on board first and gets penalised first. Why do we have to be a world leader in something that damages our economy?' 'Not leading perhaps, but better than many other countries.'

'Not necessarily leading but performing better than many, not merely keeping up.'

'Our politicians talk a good game but on the ground it is not marvellous. We victimise airlines, and residential heating fuel for example but these are not the right areas – [they] should focus on industry, that would be far more beneficial.'

'Politicians are jumping on the bandwagon but don't fully appreciate the problem.'

'The targets are very ambitious. We probably sit in the middle of the pack but are unlikely to get there.'

'The UK does nothing to use tidal turbines even though the technology is 50 years old, only a pilot project has been completed recently.'

'There is so much media noise that you can't actually determine what is being done.'

'Trying to lead the world but shooting ourselves in the foot.'

#### Commentary

Reducing carbon emissions and the political will to incentivise businesses to enact reduction measures is the special topic of the fifth npower Business Energy Index. The perception and reaction to the Government's moves to put in place a legislative framework to bring about CO<sub>2</sub> reduction and the UK's place in global emission targets are explored in this section.

What is immediately clear in responses to this special topic is that businesses resoundingly support the Government's commitment to reducing CO<sub>2</sub> emissions, with a significant 88% of businesses declaring their support. At the MEU level, this sentiment is even stronger with just 6% not supporting reduction measures.

Added to this, is a growing belief that reducing CO<sub>2</sub> emissions will provide commercial benefit. Just over a third of businesses (36%) agreed that a smaller carbon footprint would provide their business with new opportunities. While this is still the minority, it is a significant change from the last nBEI in which 59.5% of businesses did not consider reducing carbon emissions a business priority and large numbers of organisations showed a lack of understanding of the Low Carbon Economy – a future in which low carbon and financial performance are linked. In the short space of a year, this movement marks a significant difference in how businesses perceive the need for emission reduction.

And businesses are prepared to pay a premium for greening their operations when it comes to energy purchasing. Just over half (51%) of SMEs say they are now prepared to pay more for green energy compared to 38% in nBEI4. Interestingly, while the number of businesses that are prepared to pay a premium has risen, the acceptable level of this premium generates a different response. Fewer SMEs are prepared to pay a premium of between 5% and 10% in this nBEI than last time, down from 31.6% to 9.8%.

A majority 88.2% of respondents believe that a premium of 5% or less would be acceptable.

Despite the seeming optimism regarding a commitment to lower emissions, there emerges a clear level of concern as to how the Government will achieve this reduction.

A significant 75% of MEUs believe the existing regulation of the Climate Change Levy,
Emission Trading Scheme and the new Carbon Reduction Commitment (CRC) places an undue burden on businesses to deliver the UK targets, leaving only a quarter who believe that current regulation is acceptable.

And for the 68% of MEU respondents who expect to be affected by the CRC when it is launched, less than half (48%) feel it will deliver the reduction target of 1.2 million tonnes of carbon by 2020. What's more, 63% believe that the costs of inclusion in the CRC will outweigh the benefits and 71% believe the new regulation will make the UK uncompetitive.

Overall, the results present an interesting paradox: while businesses recognise the potential benefits of low carbon operations and are supportive of the Government's commitment to reduce CO<sub>2</sub>, they are only prepared to make limited investment to achieve this goal and are also unconvinced by Government plans to achieve the UK's emission targets. This suggests more must be done by Government to convince businesses of the commercial imperative to reduce emissions and provide the right structure of incentives to encourage CO<sub>2</sub> reduction.

38 39 ■

npower Business Energy Index – Winter 2007—2008

## **npower Concluding Commentary**

Businesses continue to face a number of challenges in relation to energy use as environmental and societal pressure has become increasingly important alongside the continued pressure of cost management. This latest npower Business Energy Index shows us that environmental concerns are working their way up the boardroom agenda with businesses increasingly looking at the role of carbon dioxide emissions in their operations. This is in stark contrast to our last report, nBEI4, in which few businesses saw CO<sub>2</sub> reduction as a business priority.

While it seems that businesses are responding positively to the Government's goal to reduce UK emissions, this nBEI also suggests they are beginning to feel the pressure.

At a time when the second phase of the EU ETS and the development of the CRC are taking place, it is perhaps concerning that major energy users consider themselves overburdened by the current regulatory framework. This Government has shown commitment to cap and trade emission reduction schemes and there is every reason to expect that such schemes may be developed for businesses of all sizes and sectors as the existing framework matures and develops.

In the future this may see SMEs brought into emission reduction goals. While small individually, SMEs constitute over 90% of UK businesses and it will be important that they are encouraged to enact energy saving measures and reduce their carbon footprint if the UK is to meet its binding emission targets.

We can take encouragement that this report shows that there is an appetite from SMEs for further guidance on emission reduction. At npower business we have developed a range of services and products to help smaller businesses improve energy management.

Exactly how Government will incentivise SMEs

to reduce emissions remains to be seen, but the MEUs' reaction to regulation serves as a warning not to over-complicate schemes for fear of them being viewed as a burden. This report shows us that many SMEs feel they lack the resources to invest in energy saving initiatives so any future emission programmes must clearly show a benefit to achieve their buy-in.

The report also reveals the strength and mix of feeling there is to the UK's approach to tackling climate change, demonstrating the hurdles that must be overcome before all businesses are convinced of their role in reducing emissions. Some respondents (36%) say they believe there are business benefits of low carbon operations and are supportive of the UK's climate change goals. Others feel that CO<sub>2</sub> reduction legislation will make the UK uncompetitive.

Such has been the pace with which emission reduction has become a business priority it is understandable that there is such variation in businesses' response to the priority of reducing emissions. As with all change, there are those that embrace it quickly and those that are resistant.

Going forward, regardless of the suite of policies that are introduced and with the ultimate goal of CO<sub>2</sub> reduction remaining, energy management looks set to remain a crucial tactic for businesses if they are to achieve lower emissions.

With this in mind, the report perhaps reveals a worrying trend that energy efficiency is considered less important than at any other time in our last two reports. It is difficult to fully ascertain the reasons for this, but it is interesting to note that the drop in priority given to energy efficiency comes at a time when nearly a third of businesses are reporting a fall in energy costs. It is also possible that some businesses may have made all the measures they can and are now waiting for payback before enacting further measures.

Our report does not reveal the specific reasons, but energy efficiency measured solely on cost fails to acknowledge all of the issues now governing energy consumption. Environmental and reputational factors are now as much of an important part of energy management as cost, so businesses should be working towards developing an energy policy based on all of these risks.

In this way, decisions on energy buying and investment in efficiency measures can be assessed on a more holistic basis, including reputational and environmental risks, rather than on cost alone. This moves away from a quick win scenario in which energy efficiency measures are only made for financial gain to a sustainable, long-term approach in which energy consumption is aligned with business goals.

As the UK moves toward a Low Carbon Economy, this approach will be increasingly important.

A small carbon footprint and a healthy bottom line will become ever more linked and businesses that can develop and commit to an on-going programme of emission reduction will be the ones that succeed both financially and environmentally.

**■** 40 41 **■** 

#### Disclaimer

#### 1 Availability of information

The npower Business Energy Index is issued by RWE Npower plc ('npower') free of charge and is provided on an 'as is' basis for general informational purposes only. The information provided by the npower Business Energy Index is of a general nature, not intended to address specific circumstances of any individual or entity and does not contain professional or legal advice. While npower undertakes every effort to provide accurate and complete information, the npower Business Energy Index may not necessarily contain comprehensive, complete, accurate or up to date information. The npower Business Energy Index is not intended to constitute and should not be relied upon as advice, as to the merits of commercial decisions to be taken in respect of any commodity, market, contract or other product and may not be used for advertisement or product endorsement purposes.

#### 2 Limitation of liability

npower makes no representations and disclaims all express, implied, and statutory warranties of any kind to the recipient and/or any third party including warranties as to its accuracy, completeness, usefulness or fitness for any particular purpose. npower disclaims all liability for any loss of any nature howsoever arising as a consequence of reliance upon any of the material published in the npower Business Energy Index.

#### 3 Copyrights

The layout of the npower Business Energy Index, graphics and pictures used and the collection of third party contributions are protected by copyright. npower reserves all rights in respect thereof. The reproduction of pictures, graphics, layout, information, texts and extracts of the npower Business Energy Index shall be allowed upon prior consent of npower only.

#### 4 Third party contributions and opinions

Npower plc has no influence on the contents or reliability of information or opinions contributed by third parties. Such third party contributions do not necessarily express opinions of, or information generated by, npower. npower disclaims all express, implied or statutory liability for third party contributions and provides such information or opinions for general informational purposes only.

© RWE Npower plc 2008. All rights reserved.



#### **RWE** npower

Windmill Hill Business Park Whitehill Way Swindon Wiltshire SN5 6PB

T +44 (0)1793/87 77 77 F +44 (0)1793/89 38 61 I www.rwenpower.com

