

Final Report – May 17, 2007

Background

Johnson Controls decided to conduct research within the North American business community to look at the impact of rising energy prices on organizations. For the first time, this survey of 1,250 executives examined what companies were doing in response to rising energy costs, what sort of payback they expected on investments in energy efficiency, to what extent they were motivated by concerns about the environment vs. purely economics, etc. Johnson Controls plans to repeat this survey annually.

Methodology

An online survey was completed with energy management decision makers. Specifically, in order to qualify, respondents had to meet the following criteria:

- Job responsibilities included 'reviewing or monitoring the amount of energy used by their company's facilities, or proposing or approving initiatives to make their company's facilities more efficient.'
- They had 'capital- or operations-related budget responsibility' for their company's facilities.

Respondents included company executives, identified from an executive panel, and facilities professionals who are International Facility management Association (IFMA) members. They represent a wide range of facility types, sizes and locations.

Interviews were conducted in March 2007.

Throughout the survey, respondents were asked to consider energy as being specifically natural gas and electricity.

Throughout the report, 'Don't know' responses have been excluded from some questions. For questions in which a single response was required, the total of the responses for those questions adds up to less than 100%.

Who Were the Respondents?

Respondent Profile

- The majority (68%) of respondents were facility managers, CEOs, VPs/directors of facilities, or general managers.

<u>Position</u>	<u>Total</u> (1249) %
Facility Manager	22
CEO	18
VP or Director of Facilities	16
General Manager	12
COO or VP/Director of Operations	9
CFO	7
VP or Director of Procurement	3
Other	13

- Respondents were typically responsible for less than a half million square feet of facilities.

<u>Area of Responsibility</u>	<u>Total</u> (1249) %
Less than 100,000 sq. ft	38
100,000 to 499,999 sq. ft	27
500,000 to 999,999 sq. ft	13
1 million to 1.99 million sq. ft	9
2 million to 4.99 million sq. ft	6
5 million or more sq. ft	6
Don't know	2

- About half of the respondents worked for companies with between 100 and 5,000 employees; a third worked for companies with fewer than 100 employees and a fifth for much larger companies.

<u>Number of Employees</u>	<u>Total</u> (1249) %
Less than 100	33
100 – 499	19
500 – 999	12
1,000 – 4,999	16
5,000 – 9,999	6
10,000 – 49,999	8
50,000 or more	6
Don't know	1

- For purposes of the survey a relatively large number of respondents declined to give a range for their organizations' revenues. Of the rest, respondents represented companies of a wide range of revenues.

<u>Company Revenue</u>	<u>Total</u> (1194)
	%
Less than \$100K	5
\$100K – less than \$500K	5
\$500K – less than \$1 million	4
\$1 million – less than \$5 million	12
\$5 million – less than \$10 million	5
\$10 million – less than \$50 million	10
\$50 million – less than \$100 million	5
\$100 million – less than \$500 million	7
\$500 million – less than \$1 billion	2
\$1 billion or more	8
Don't know	39

- A wide variety of industries were represented:

<u>Industry</u>	<u>Total</u> (1249)
	%
Manufacturing	14
Finance, insurance, and banking	11
Education	10
Service industry	9
Healthcare	7
Government and public administration	6
Retail	5
Construction	4
Communications	4
Real estate	4
Wholesale	3
Hospitality	2
Transportation	2
Other	20

Office space was, by far, the most common type of responsibility.

- Manufacturing, warehouse, and retail were also a key responsibility for at least 10% of respondents.

<u>Primary Type of Building</u>	<u>Total</u> (1249) %
Office space	63
Industrial/manufacturing/plant	18
Warehouse/storage	18
Retail	10
Education campus	9
Research center/laboratory	8
Hospital/healthcare facility/clinic	7
Hotels/hospitality	5
Other	10

- One-fourth of respondents had responsibilities that stretched across multiple states. 6% had responsibility for all 50 states or the contiguous 48 states.

<u>Number of States Responsible In</u>	<u>Total</u> (1249) %
One	72
More than one	27
All 50/Contiguous 48	6
Not answered	1

Summary

Current Use, Expectations, and Plans

- The vast majority of decision makers for energy-related issues believe that electricity and natural gas prices will increase significantly over the coming year:
 - 79% believe prices will increase in the next 12 months
 - The average expectation is an increase of 13.25%, with over half putting the increase in the 6%-20% range
- Consistent with these expectations, it is a majority of decision makers that expects to make investments in energy efficiency improvements in the next year:
 - Almost 60% expect to make improvements with capital expenditures and just over 60% expect to make improvements from operating expenditures
- Those expecting to make investments anticipate investing a significant amount of their budgets:
 - Those anticipating making investments from capital budgets expect to invest an average of 8% of that budget and those making investments from operating budgets expect to invest an average of 6% of that budget
- While decision makers expect their investments in energy efficiency to result in a reduction in the amount of energy they consume, the majority (61%) do not believe it will translate to a reduction in the dollar amount paid for energy per square foot of space:
 - The average expectation is that investments will reduce consumption by 8%, which is roughly consistent with the proportion of operating and capital budgets they expect to invest
 - However, only 38% expect this to result in a reduction of dollars paid in energy per square foot.

Emphasis on Energy Management

- 15% of decision makers say that energy management is extremely important to their company and, on average, it is considered somewhere between somewhat and very important.
- Furthermore, three-fourths of those with construction or retrofit projects (or who expect to have such projects in the next year) say that energy-efficiency was (or will be) a priority in the design of those projects.
- And the importance of energy management to companies is clearly growing:
 - More than 60% believe that their company is paying more attention to energy efficiency today than it did 5-years ago.
- However, the growing importance of energy management has not yet translated to an across the board higher tolerance for a return on investments in it:
 - The average maximum payback period for such investments is just 4.3 years and 64% have a maximum of between two and five years. Only 16% will tolerate a payback period of six years or more
 - Just 18% believe that their company will allow a longer payback period today than it did 5-years ago.
- Cost savings are a considerably stronger motivation for achieving energy efficiency than is environmental responsibility:
 - Although only 6% say that the motivation is entirely cost savings, 46% say that it is mostly cost savings, or somewhat more cost savings
 - One-third says these two factors are equal motivators but only 13% cite environmental responsibility as the greater motivator.

Measures Already in Place

- A look at what companies have already done to improve the energy efficiency of their facilities, reveals that a number of measures have already been embraced but these tend to be measures that require little or no investment, or are relatively simple to do:
 - Educated staff and other facility users (70%)
 - Adjusted HVAC controls to reduce the time it runs (60%)
 - Switched to energy efficient lighting (67%)
 - Installed lighting sensors (46%)

Other measures included on the survey have been put in place by relatively few companies.

Analysis by Size of Responsibility

- The larger the area of facilities, the larger the expenditure on energy, and the larger proportion of total expenses energy accounts for:
 - For those with at least half-a-million square feet, energy accounts for an average of 12% of their total expenses, compared to 7% for those with less than 100,000 square feet.
- Size of facilities does not appear to influence whether decision makers expect energy prices to rise, or by how much they expect them to rise. However, the likelihood of making energy efficiency improvements (using either capital or operating budgets) and the proportion of budgets they expect to invest in those improvements grows as the size of facilities grows:
 - About 80% of those responsible for 500,000 square feet or more expect to make energy efficiency improvements with capital expenditures, and 80% expect to make them with operating expenditures. This compares to just 35% (capital) and 46% (operating) among those with responsibilities under 100,000 square feet
 - Those with the largest area of responsibility expect, on average, to spend 9% of their capital budget and/or 7% of their operating budget on such improvements, compared to 7% and 5%, respectively, for those with the smallest responsibility.
- The larger the facilities, the greater the importance of energy management to a company:
 - 68% of decision makers with responsibility for 500,000 square feet or more consider energy management to be extremely (22%) or very (46%) important. This compares to just 35% of those with less than 100,000 square feet, and 53% of those with between 100,000 and 500,000 square feet.
- As a consequence, those with larger areas of facilities review their energy consumption data and their energy forecasts far more frequently than those with smaller facilities.
- The attention paid to energy efficiency does not appear to have increased for larger companies much more than it has for smaller companies but those with the largest facility areas will tolerate a longer payback period on their investment, and have become more tolerant of longer payback periods over the past 5-years:
 - Companies with 500,000 square feet or more will tolerate a payback of 5.1 years on average, which compares to only 3.7 years for the smallest companies. Perhaps more importantly though, is that 27% of the largest companies will tolerate a return of six or more years, compared to just 9% of the smallest companies
 - 26% of those with at least 500,000 square feet say their company's tolerance has relaxed relative to 5-years ago, compared to just 13% of smaller companies.
- The relative influence of cost savings versus environmental responsibility in energy management decisions does not change with facility size – the emphasis is always on cost savings, with environmental responsibility playing a secondary role.

Analysis by Region

A regional analysis was completed and the data is included in the report. Some respondents were responsible for facilities across multiple regions and their responses are, therefore, included in the data for more than one region. There were remarkably few differences observed across regions.

- Decision makers across all regions expect energy prices to increase over the next year but those in the South are the least optimistic about the size of the increase. The average expectation in the South is for an increase of just over 15%, which compares to about 13% in other regions.

Detailed Findings

Current Energy Use, Expectations and Plans

- A large number of respondents did not know the total amount their company spends on electricity and natural gas.

<u>Amount on Electricity and Natural Gas Last Yr</u>	<u>Total</u> (1207) %
\$50,000 or less	20
\$50,001 - \$100,000	6
\$100,001 - \$500,000	13
\$500,001 - \$1,000,000	6
\$1,000,001 - \$5,000,000	9
More than \$5,000,000	5
Don't know	42

- Most frequently, electricity and natural gas expenses account for between 1% and 9% of total company expenses and on average they account for 9%.

<u>% of Total Expenses Electricity/Gas Accounts for</u>	<u>Total</u> (1249) %
Less than 1%	11
1% - 4%	22
5% - 9%	21
10% - 14%	14
15% - 19%	7
20% - 24%	5
25% or more	6
Don't know	15
<i>Average</i>	<i>9%</i>

- About 80% of respondents believe that natural gas and electricity prices will rise over the next year.

<u>Believe Price of Gas & Electricity Will...</u>	<u>Total</u> (1249) %
Increase over the next year	79
Decrease over the next year	3
Not change significantly	18

- Relatively few expect energy prices to rise more than 20%.

	<u>Total</u> (973)
<u>Anticipated Increase</u>	%
1% - 5%	20
6% - 10%	30
11% - 20%	23
21% - 40%	7
More than 40%	3
Don't know	18
<i>Mean anticipated increase</i>	<i>13.25%</i>

- Close to 60% expect to make energy efficiency improvements funded from capital expenditures in the next year.

	<u>Total</u> (1249)
<u>Expectations – Capital Budget</u>	%
Expect to make energy efficiency improvements with capital expenditures in the next year	57
Do not expect to make improvements with capital expenditures in the next year	26
Don't know	17

- Most frequently, companies expect to invest between 1% and 9% of their total capital budget in energy efficiency measures, and on average companies expect to invest 8% of their capital budget in such measures.

	<u>Total</u> (712)
<u>% of Capital Budget Expect to Invest</u>	%
Less than 1%	10
1% - 4%	28
5% - 9%	26
10% - 14%	14
15% - 19%	7
20% - 24%	4
25% or more	4
Don't know	7
<i>Mean expectation</i>	<i>8%</i>

- Just over 60% expect to make energy efficiency improvements funded from their operating budget in the next year.

<u>Expectations – Operating Budget</u>	<u>Total</u> (1249) %
Expect to make energy efficiency improvements with operating expenditures in the next year	64
Do not expect to make improvements with operating expenditures in the next year	21
Don't know	16

- Companies most frequently expect to invest up to 9% of their total operating budget on energy efficiency measures, and on average companies expect to invest 6% of their operating budget in such measures.

<u>% of Operating Budget Expect to Invest</u>	<u>Total</u> (791) %
Less than 1%	16
1% - 4%	36
5% - 9%	23
10% - 14%	10
15% - 19%	4
20% - 24%	3
25% or more	1
Don't know	7
<i>Mean expectation</i>	<i>6%</i>

- Companies most commonly expect to use between 1% and 9% less energy as a result of their anticipated investments in energy efficiency. On average they expect to use 8% less energy.

<u>Anticipated Resultant Consumption Reduction</u>	<u>Total</u> (1123) %
Less than 1%	7
1% - 4%	27
5% - 9%	28
10% - 19%	16
20% - 29%	4
30% or more	2
Don't know	15
<i>Mean expectation</i>	<i>8%</i>

- Even though most companies expect to invest in energy efficiency measures, remarkably few (26%) expect the investments to result in an actual decline in the dollars paid for energy per square foot. Rather, they see the investment as a way to maintain the cost per square foot, or to reduce the increase.

	<u>Total</u> (1249) %
Dollars paid per square foot will increase	35
Dollars paid per square foot will decrease	26
Dollars paid per square foot will not change significantly	38

Company's Emphasis on Energy Management

- Few companies (15%) consider energy management to be *extremely* important but one-third currently regard it as *very* important and a similar number consider it *somewhat* important. On average, companies consider it somewhere between *very* and *somewhat* important.

<u>Importance of Energy Management to Company</u>		<u>Total</u> (1249)
		%
Extremely important	(5)	15
Very important	(4)	36
Somewhat important	(3)	38
Not very important	(2)	9
Not at all important	(1)	2
<i>Mean</i>		<i>3.53</i>

- Monthly is the most common frequency for companies to review energy *consumption*, and on average companies review consumption just over once a month.

<u>Frequency of Reviewing Consumption Data</u>		<u>Total</u> (1249)
		%
Daily	(265)	3
Weekly	(52)	6
Monthly	(12)	40
Quarterly	(4)	19
Twice a year	(2)	7
Annually	(1)	14
Less than once a year	(0.5)	8
Don't know		3
<i>Avg. times per year</i>		<i>17.1</i>

- Companies also commonly review their energy use *forecasts* monthly or quarterly, but as many review forecasts annually. Thus, on average, forecasts tend to be reviewed less frequently than actual energy use. On average, forecasts are reviewed about eight times per year.

<u>Frequency of Reviewing Forecasts</u>	<u>Total</u>
	(1249)
	%
Daily (265)	1
Weekly (52)	3
Monthly (12)	20
Quarterly (4)	25
Twice a year (2)	10
Annually (1)	25
Less than once a year (0.5)	9
Don't know	7
<i>Avg. times per year</i>	<i>8.1</i>

- Companies are paying more attention to energy efficiency than they were a year ago:
 - 23% of respondents said they are paying *a lot more* attention and 39% said they are paying *a little more* attention than they were 12 months ago.

<u>Attention Paid to Energy Efficiency Vs. Year Ago</u>	<u>Total</u>
	(1249)
	%
Paying a lot more attention now (5)	23
Paying a little more attention now (4)	39
Paying about the same attention (3)	33
Paying a little less attention now (2)	2
Paying a lot less attention now (1)	*
Don't know	3
<i>Average</i>	<i>3.86</i>

- Most companies (two-thirds) have a tolerance of between two and five years for a return on their energy efficiency investments. The average tolerance is 4.3 years.

<u>Tolerance for ROI on Energy Efficiency Investment</u>		<u>Total</u> (1249) %
1 year or less	(1)	8
2 to 3 years	(2.5)	34
4 to 5 years	(4.5)	30
6 to 9 years	(7.5)	10
10 to 15 years	(12.5)	5
More than 15 years	(17.0)	1
Would not require ROI		3
<i>Average Maximum ROI period</i>		4.3 years

- Around half the companies have not changed their level of tolerance for a return on their energy efficiency investments compared to five years ago. However, 18% believe their company will allow a longer payback period today, than it would have allowed five years ago, suggesting that management is relaxing its expectations in this respect.

<u>ROI Tolerance Compared to 5-Years Ago</u>	<u>Total</u> (1249) %
Company will allow longer payback period today	18
Allowable payback period has not changed	45
Company allowed longer payback 5-years ago	10
Don't know	26

- Emphasizing the importance of energy efficiency to companies, three-fourths of those with current or planned retrofit or new construction projects believe that energy efficiency is (or will be a priority in the construction design.

<u>Consideration of Efficiency in Construction Projects</u>	<u>Total</u> (664) %
Energy efficiency was/will be a design priority	77
Energy efficiency was not/won't be a priority	18
Don't know	5

- Cost savings are a considerably greater motivation for achieving energy efficiency than is environmental responsibility, however the environment is usually at least partly the reason:
 - 46% of respondents believe energy efficiency is mostly or somewhat more for cost savings but few believe it is entirely for cost savings
 - About one-third believe environmental responsibility and cost savings are equally behind decisions to improve energy efficiency.

		<u>Total</u> (1183) %
100% cost savings	(7)	6
Mostly for cost savings	(6)	24
Somewhat more for cost savings	(5)	22
50% cost savings/50% environmental	(4)	35
Somewhat more for environment	(3)	7
Mostly for environmental responsibility	(2)	5
100% environmental responsibility	(1)	1
<i>Mean</i>		<i>4.68</i>

Energy Management Measures Already in Place

- Education of staff and other facility users is a very commonly implemented tool for increasing energy efficiency – around 70% of companies appear to do this.

<u>Staff-Related Measures Adopted</u>	<u>Total</u> (1249) %
Educated staff or other facility users on what they can do to reduce energy use	70
Attended or sent staff to energy management seminars	31
Hired an energy consultant to find ways to improve energy efficiency	20
Hired an energy manager	9
None	17

- Companies have also frequently taken the step of adjusting HVAC controls to reduce the time that heating or AC runs.
- About one-third of companies have increased preventive maintenance schedules, increased their consumption monitoring schedule, or upgraded their energy management system.

<u>Equipment and Monitoring-Related Measures Adopted</u>	<u>Total</u> (1249) %
Adjusted HVAC temperature controls to reduce time that heating/AC runs	60
Increased preventive maintenance schedules	34
Increased frequency of monitoring consumption	31
Upgraded existing energy management system	31
Replaced inefficient equipment even though it was not due for replacement	28
Installed variable speed/frequency drives (VSD/VFD)	28
Installed an energy management system	23
Other	6
None	12

- It appears that a majority of companies has switched to energy efficient lighting, and close to half have installed lighting sensors so that lighting is used only as needed. Others have installed or adjusted time clocks to limit the hours that lighting is used.

<u>Lighting-Related Measures Adopted</u>	<u>Total</u> (1249) %
Switched to energy efficient lighting	67
Installed lighting sensors so lights come on and off as needed	46
Installed or adjusted time clocks to turn lights on/off at specified times	35
Other	4
None	15

- Relatively few have installed energy-saving glass in facility windows, or re-roofed buildings with white shingles to reduce heat gain.

<u>Building Design-Related Measures Adopted</u>	<u>Total</u> (1249) %
Installed energy-saving glass in windows	28
Re-roofed with white shingles to reduce heat gain	13
Other	7
None	60

- Around one-third of companies have negotiated energy contracts with energy suppliers but relatively few have put energy price hedging strategies in place, are capturing waste energy produced by operations, self-generating power in demand peaks, or have converted to using alternative fuels.

<u>Energy Supply-Related Measures Adopted</u>	<u>Total</u> (1249) %
Negotiated energy contracts with suppliers	36
Put energy price hedging strategies in place	14
Captured waste energy generated by operations	11
Self-generate power to use during demand peaks	10
Converted to using alternative fuels	8
Other	2
None	47

Carbon-Reduction Goals

- Relatively few (11%) companies currently have a stated carbon reduction goal.

	<u>Total</u>
	(1249)
	%
Have stated carbon-reduction goal	11
Don't have stated carbon-reduction goal	76
Don't know	13

- Of those that do have a stated carbon-reduction goal, the goal is equally as likely to have raised their expected ROI as it is to have had no impact on their expected ROI.

	<u>Total</u>
	(141)
	%
<u>Carbon-Reduction Goal Has...</u>	
Raised our expected ROI	29
Lowered our expected ROI	18
Not had any impact on expected ROI	31
Don't know	22

Detailed Findings by Subgroups

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Size of Responsibility Region

Current Energy Use, Expectations and Plans – by Size of Responsibility

- Not surprisingly, the larger the area of responsibility, the larger the expenditure on energy.

	Total	<100,000	100,000 –	500,000+
	(1207)	sq. ft	499,999 sq. ft	sq. ft
		(456)	(331)	(398)
<u>Amount on Electricity and Natural Gas Last Yr</u>	%	%	%	%
\$50,000 or less	20	40	9	7
\$50,001 - \$100,000	6	9	5	3
\$100,001 - \$500,000	13	10	25	7
\$500,001 - \$1,000,000	6	2	13	7
\$1,000,001 - \$5,000,000	9	1	6	20
More than \$5,000,000	5	*	3	12
Don't know	42	39	39	46

- As the amount of facility space grows, so does the proportion of total expenses that electricity and natural gas accounts for. For smaller companies, in more than 50% of cases energy accounts for between 1% and 9% of total expenses. For larger companies, they frequently account for 10%-14% of expenses and, on average, 12%.

	Total	<100,000	100,000 –	500,000+
	(1249)	sq. ft	499,999 sq. ft	sq. ft
		(469)	(340)	(415)
<u>% of Total Expenses Electricity/Gas Accounts for</u>	%	%	%	%
Less than 1%	11	15	11	6
1% - 4%	22	28	20	17
5% - 9%	21	26	19	18
10% - 14%	14	11	14	18
15% - 19%	7	5	9	9
20% - 24%	5	2	6	7
25% or more	6	2	6	10
Don't know	15	11	16	16
<i>Average</i>	<i>9%</i>	<i>7%</i>	<i>10%</i>	<i>12%</i>

- Regardless of size of responsibility, around 80% of decision-makers believe energy prices will increase over the next year.

	Total	<100,000	100,000 –	500,000+
	(1249)	sq. ft	499,999 sq. ft	sq. ft
		(469)	(340)	(415)
<u>Believe Price of Gas & Electricity Will...</u>	%	%	%	%
Increase over the next year	79	78	82	76
Decrease over the next year	3	2	2	5
Not change significantly	18	20	15	18

- The anticipated increase in energy prices appears to be fairly consistent across all facility sizes.

	Total	<100,000	100,000 –	500,000+
	(973)	sq. ft	499,999 sq. ft	sq. ft
	(973)	(364)	(276)	(313)
<u>Anticipated Increase</u>	%	%	%	%
1% - 5%	20	18	18	23
6% - 10%	30	28	36	28
11% - 20%	23	23	20	24
21% - 40%	7	8	6	6
More than 40%	3	2	2	4
Don't know	18	21	18	15
<i>Mean anticipated increase</i>	<i>13.25%</i>	<i>13.55</i>	<i>12.31</i>	<i>13.66</i>

- The larger the area of responsibility, the greater the likelihood that the decision-maker expects to make energy efficiency improvements with capital expenditures in the next year. Almost 80% of those with responsibility for at least half a million square feet expect to make improvements from capital expenditures.

	Total	<100,000	100,000 –	500,000+
	(1249)	sq. ft	499,999 sq. ft	sq. ft
	(1249)	(469)	(340)	(415)
<u>Expectations – Capital Budget</u>	%	%	%	%
Expect to make energy eff. improvements with capital expenditures in the next year	57	35	63	79
Do not expect to make improvements with capital expenditures in the next year	26	41	23	13
Don't know	17	24	15	8

- Of those that do expect to make energy efficiency improvements using capital expenditures, in the majority of cases they expect to allocate between 1% and 9% of the total capital budget to those improvements.

	Total	<100,000	100,000 –	500,000+
	(712)	sq. ft	499,999 sq. ft	sq. ft
	(712)	(165)	(212)	(328)
<u>% of Capital Budget Expect to Invest</u>	%	%	%	%
Less than 1%	10	14	10	8
1% - 4%	28	29	30	25
5% - 9%	26	32	23	26
10% - 14%	14	10	15	16
15% - 19%	7	5	4	9
20% - 24%	4	1	5	6
25% or more	4	4	4	3
Don't know	7	5	9	6
<i>Mean expectation</i>	<i>8%</i>	<i>7%</i>	<i>8%</i>	<i>9%</i>

- The larger the facilities, the more likely decision-makers are to make energy efficiency improvements with operating expenditures too. Smaller facilities are more likely to make improvements from operating expenditures than they are from capital expenditures.

	Total (1249) %	<100,000 sq. ft (469) %	100,000 – 499,999 sq. ft (340) %	500,000+ sq. ft (415) %
<u>Expectations – Operating Budget</u>				
Expect to make energy eff. improvements with operating expenditures in the next year	64	46	67	80
Do not expect to make improvements with operating expenditures in the next year	21	31	18	11
Don't know	16	22	14	9

- Regardless of size, companies most frequently expect to invest up to 9% of their total operating budget on energy efficiency measures, which is similar to the proportion of capital budget expenditures they expect to spend in this area.
- Those with the largest responsibilities expect to spend, on average, a slightly higher percent of their operating budget on these improvements.

	Total (791) %	<100,000 sq. ft (218) %	100,000 – 499,999 sq. ft (227) %	500,000+ sq. ft (332) %
<u>% of Operating Budget Expect to Invest</u>				
Less than 1%	16	21	17	11
1% - 4%	36	40	36	34
5% - 9%	23	23	22	24
10% - 14%	10	5	11	13
15% - 19%	4	3	3	5
20% - 24%	3	2	2	4
25% or more	1	*	*	1
Don't know	7	5	9	7
<i>Mean expectation</i>	6%	5%	5%	7%

- And, while they expect to spend between 1% and 9% of both budgets on energy efficiency improvements, decision-makers also expect those expenditures to result in a 1% to 9% reduction in energy consumption. This is consistent across facility sizes.

		<100,000	100,000 –	500,000+
	<u>Total</u>	<u>sq. ft</u>	<u>499,999 sq. ft</u>	<u>sq. ft</u>
<u>Anticipated Resultant Consumption Reduction</u>	(1123)	(387)	(309)	(404)
	%	%	%	%
Less than 1%	7	11	6	4
1% - 4%	27	27	25	30
5% - 9%	28	25	32	29
10% - 19%	16	15	15	18
20% - 29%	4	2	5	7
30% or more	2	2	*	2
Don't know	15	18	17	10
<i>Mean expectation</i>	<i>8%</i>	<i>7%</i>	<i>8%</i>	<i>8%</i>

- Even though most companies expect to invest in energy efficiency improvements, across facilities of all sizes, relatively few expect the investments to result in an actual decline in the dollars paid for energy per square foot.

		<100,000	100,000 –	500,000+
	<u>Total</u>	<u>sq. ft</u>	<u>499,999 sq. ft</u>	<u>sq. ft</u>
	(1249)	(469)	(340)	(415)
	%	%	%	%
Dollars paid per square foot will increase	35	35	34	37
Dollars paid per square foot will decrease	26	24	28	28
Dollars paid per square foot will not change significantly	38	41	38	35

Company's Emphasis on Energy Management – by Size of Responsibility

- The larger the area of facility space, the greater the importance of energy management to a company. Almost 70% of those with 500,000 square feet or more consider energy management extremely or very important.

		Total	<100,000	100,000 –	500,000+
		(1249)	sq. ft	499,999 sq. ft	sq. ft
<u>Importance of Energy Management to Company</u>			(469)	(340)	(415)
		%	%	%	%
Extremely important	(5)	15	10	13	22
Very important	(4)	36	25	40	46
Somewhat important	(3)	38	44	39	28
Not very important	(2)	9	16	7	4
Not at all important	(1)	2	4	1	*
<i>Mean</i>		3.53	3.21	3.57	3.85

- Companies with larger facility areas also review their energy consumption more frequently. Those with the largest areas review their consumption a little more than twice a month.

		Total	<100,000	100,000 –	500,000+
		(1249)	sq. ft	499,999 sq. ft	sq. ft
<u>Frequency of Reviewing Consumption Data</u>			(469)	(340)	(415)
		%	%	%	%
Daily	(265)	3	*	3	6
Weekly	(52)	6	2	5	11
Monthly	(12)	40	33	40	47
Quarterly	(4)	19	21	18	19
Twice a year	(2)	7	9	8	5
Annually	(1)	14	18	17	7
Less than once a year	(0.5)	8	13	7	3
Don't know		3	3	3	2
<i>Avg. times per year</i>		17.1	7.7	16.8	28.3

- And those with the most square feet of facility space also review their energy forecasts more often. Those with the most facility space review their forecasts a little more than once a month on average, while those with the least space tend to review them quarterly.

Frequency of Reviewing Forecasts	Total (1249)	<100,000	100,000 –	500,000+
		sq. ft (469)	499,999 sq. ft (340)	sq. ft (415)
	%	%	%	%
Daily (265)	1	*	1	1
Weekly (52)	3	1	3	7
Monthly (12)	20	10	21	29
Quarterly (4)	25	19	24	31
Twice a year (2)	10	10	13	8
Annually (1)	25	33	26	16
Less than once a year (0.5)	9	18	6	2
Don't know	7	9	6	5
<i>Avg. times per year</i>	<i>8.1</i>	<i>3.9</i>	<i>7.6</i>	<i>13.2</i>

- Companies of all sizes are paying more attention to energy efficiency than they were one year ago. However, the largest companies are the most likely to be paying *a lot* more attention now.

Attention Paid to Energy Efficiency Vs. Year Ago	Total (1249)	<100,000	100,000 –	500,000+
		sq. ft (469)	499,999 sq. ft (340)	sq. ft (415)
	%	%	%	%
Paying a lot more attention now (5)	23	19	23	29
Paying a little more attention now (4)	39	37	40	40
Paying about the same attention (3)	33	36	33	29
Paying a little less attention now (2)	2	3	2	1
Paying a lot less attention now (1)	*	1	-	-
Don't know	3	4	1	1
<i>Average</i>	<i>3.86</i>	<i>3.74</i>	<i>3.85</i>	<i>3.99</i>

- Regardless of the total area of their facilities, more than 65% of companies have a tolerance for an ROI on energy efficiency investments of 5-years or less. The average tolerance is higher for those companies with the largest area of facilities and one-fourth of companies in this size range will tolerate a 6-15 year payback. However, the average tolerance even for these largest companies is still around 5-years, which is only somewhat higher than for smaller companies.

		Total	<100,000 sq. ft	100,000 – 499,999 sq. ft	500,000+ sq. ft
<u>Tolerance for ROI on Energy Eff. Investment</u>		(1249)	(469)	(340)	(415)
	%	%	%	%	%
1 year or less	(1)	8	11	5	6
2 to 3 years	(2.5)	34	34	40	30
4 to 5 years	(4.5)	30	28	33	31
6 to 9 years	(7.5)	10	6	7	16
10 to 15 years	(12.5)	5	3	4	10
More than 15 years	(17.0)	1	*	1	1
Would not require ROI		3	5	2	2
<i>Average Maximum ROI period</i>		<i>4.3 years</i>	<i>3.7 years</i>	<i>4.1 years</i>	<i>5.1 years</i>

- Those companies with the largest area of facilities are the most likely to have relaxed their tolerance for ROI relative to 5-years ago.

	Total	<100,000 sq. ft	100,000– 499,999 sq. ft	500,000+ sq. ft
<u>ROI Tolerance Compared to 5-Years Ago</u>	(1249)	(469)	(340)	(415)
	%	%	%	%
Company will allow longer payback period today	18	13	16	26
Allowable payback period has not changed	45	44	47	45
Company allowed longer payback 5-years ago	10	9	10	12
Don't know	26	34	27	17

- Companies of all sizes will tend to consider energy efficiency in new construction or retrofits. However, those with the largest facilities are the most likely to do so.

	Total	<100,000 sq. ft	100,000 – 499,999 sq. ft	500,000+ sq. ft
<u>Consideration of Efficiency in Construction Projects</u>	(664)	(133)	(207)	(315)
	%	%	%	%
Energy eff. was/will be a design priority	77	64	80	82
Energy eff. was not/won't be a priority	18	29	17	14
Don't know	5	7	3	4

- The relative influence of cost savings and environmental responsibility in energy management decisions are consistent across companies of all facility sizes. Environmental responsibility is a factor but cost savings is the primary motivator for achieving energy efficiencies.

		<100,000	100,000 –	500,000+	
	<u>Total</u>	<u>sq. ft</u>	<u>499,999 sq. ft</u>	<u>sq. ft</u>	
	(1183)	(436)	(332)	(394)	
	%	%	%	%	
100% cost savings	(7)	6	6	7	4
Mostly for cost savings	(6)	24	27	26	21
Somewhat more for cost savings	(5)	22	20	21	25
50% cost savings/50% environmental	(4)	35	33	35	36
Somewhat more for environment	(3)	7	8	5	9
Mostly for environmental responsibility	(2)	5	5	5	4
100% environmental responsibility	(1)	1	2	1	1
<i>Mean</i>		<i>4.68</i>	<i>4.69</i>	<i>4.77</i>	<i>4.60</i>

Current Energy Use, Expectations and Plans – by Region

- Energy expenditures are fairly consistent by region.

	<u>Total</u> (1207)	<u>Northeast</u> (305)	<u>Midwest</u> (368)	<u>West</u> (345)	<u>South</u> (416)
<u>Amount on Electricity and Natural Gas Last Yr</u>	%	%	%	%	%
\$50,000 or less	20	14	17	17	20
\$50,001 - \$100,000	6	6	5	5	5
\$100,001 - \$500,000	13	13	15	13	10
\$500,001 - \$1,000,000	6	7	6	6	6
\$1,000,001 - \$5,000,000	9	10	9	11	9
More than \$5,000,000	5	7	6	6	9
Don't know	42	43	42	41	41

- Across all regions, energy accounts for an average of 9% of total company expenditures.

	<u>Total</u> (1249)	<u>Northeast</u> (315)	<u>Midwest</u> (378)	<u>West</u> (356)	<u>South</u> (423)
<u>% of Total Expenses Electricity/Gas Accounts for</u>	%	%	%	%	%
Less than 1%	11	11	10	10	13
1% - 4%	22	21	23	22	20
5% - 9%	21	20	20	19	19
10% - 14%	14	14	11	15	12
15% - 19%	7	8	9	10	7
20% - 24%	5	5	3	5	6
25% or more	6	6	6	5	7
Don't know	15	15	17	14	15
<i>Average</i>	<i>9%</i>	<i>9%</i>	<i>9%</i>	<i>9%</i>	<i>9%</i>

- Across all regions, the vast majority of decision makers believe energy prices will increase over the next 12-months.

	<u>Total</u> (1249)	<u>Northeast</u> (315)	<u>Midwest</u> (378)	<u>West</u> (356)	<u>South</u> (423)
<u>Believe Price of Gas & Electricity Will...</u>	%	%	%	%	%
Increase over the next year	79	82	80	80	78
Decrease over the next year	3	2	2	3	4
Not change significantly	18	16	18	17	18

- Decision makers in the Midwest are a little bit more optimistic about how much they expect energy prices to increase, and those in the South are the least optimistic.

	<u>Total</u>	<u>Northeast</u>	<u>Midwest</u>	<u>West</u>	<u>South</u>
	(973)	(254)	(298)	(280)	(321)
<u>Anticipated Increase</u>	%	%	%	%	%
1% - 5%	20	19	23	20	19
6% - 10%	30	29	28	33	27
11% - 20%	23	24	25	23	23
21% - 40%	7	7	8	7	8
More than 40%	3	2	2	3	5
Don't know	18	20	16	14	18
<i>Mean anticipated increase</i>	13.25%	13.22%	12.98%	13.33%	15.28%

- In each region, around 60% of companies anticipate making energy efficiency improvements with capital expenditures in the next year.

	<u>Total</u>	<u>Northeast</u>	<u>Midwest</u>	<u>West</u>	<u>South</u>
	(1249)	(315)	(378)	(356)	(423)
<u>Expectations – Capital Budget</u>	%	%	%	%	%
Expect to make energy eff. improvements with capital expenditures in the next year	57	59	58	63	59
Do not expect to make improvements with capital expenditures in the next year	26	26	28	24	23
Don't know	17	15	14	13	18

- And companies in each region expect to invest a similar proportion of their total capital budget in energy efficiency.

	<u>Total</u>	<u>Northeast</u>	<u>Midwest</u>	<u>West</u>	<u>South</u>
	(712)	(186)	(219)	(226)	(249)
<u>% of Capital Budget Expect to Invest</u>	%	%	%	%	%
Less than 1%	10	9	9	11	8
1% - 4%	28	30	26	31	27
5% - 9%	26	25	27	24	28
10% - 14%	14	15	7	15	12
15% - 19%	7	6	7	7	6
20% - 24%	4	4	3	4	6
25% or more	4	4	3	2	2
Don't know	7	8	7	6	10
<i>Mean expectation</i>	8%	8%	8%	7%	8%

- Similarly, just over 60% of companies in each region expect to make energy efficiency improvements from operating expenditures.

<u>Expectations – Operating Budget</u>	<u>Total</u> (1249)	<u>Northeast</u> (315)	<u>Midwest</u> (378)	<u>West</u> (356)	<u>South</u> (423)
	%	%	%	%	%
Expect to make energy eff. improvements with operating expenditures in the next year	64	62	65	66	66
Do not expect to make improvements with operating expenditures in the next year	21	21	19	17	19
Don't know	16	17	15	17	15

- And across all regions, companies anticipating investing an average of 6% of their operating budget in such improvements.

<u>% of Operating Budget Expect to Invest</u>	<u>Total</u> (791)	<u>Northeast</u> (195)	<u>Midwest</u> (245)	<u>West</u> (234)	<u>South</u> (278)
	%	%	%	%	%
Less than 1%	16	15	18	14	14
1% - 4%	36	34	33	38	34
5% - 9%	23	22	23	24	23
10% - 14%	10	9	10	11	10
15% - 19%	4	6	5	5	4
20% - 24%	3	4	1	2	4
25% or more	1	1	*	*	*
Don't know	7	10	9	6	10
<i>Mean expectation</i>	6%	6%	6%	6%	6%

- From their investment in energy efficiency, companies across all regions expect an average reduction in their energy consumption of 8% and this is quite consistent across regions.

<u>Anticipated Resultant Consumption Reduction</u>	<u>Total</u> (1123)	<u>Northeast</u> (290)	<u>Midwest</u> (334)	<u>West</u> (327)	<u>South</u> (378)
	%	%	%	%	%
Less than 1%	7	8	6	5	6
1% - 4%	27	23	25	30	28
5% - 9%	28	30	32	27	28
10% - 19%	16	16	14	18	15
20% - 29%	4	5	5	5	4
30% or more	2	1	2	1	2
Don't know	15	16	17	14	17
<i>Mean expectation</i>	8%	7%	8%	8%	8%

- And only one-fourth of decision makers in all regions anticipate that their investment in energy efficiency will result in a reduction in consumption.

	<u>Total</u>	<u>Northeast</u>	<u>Midwest</u>	<u>West</u>	<u>South</u>
	(1249)	(315)	(378)	(356)	(423)
	%	%	%	%	%
Dollars paid per square foot will increase	35	38	40	35	43
Dollars paid per square foot will decrease	26	24	25	26	26
Dollars paid per square foot will not change significantly	38	39	35	39	41

Company's Emphasis on Energy Management – by Region

- Energy management is equally important to companies across all regions.

<u>Importance of Energy Management to Company</u>		<u>Total</u>	<u>Northeast</u>	<u>Midwest</u>	<u>West</u>	<u>South</u>
		(1249)	(315)	(378)	(356)	(423)
		%	%	%	%	%
Extremely important	(5)	15	17	12	13	19
Very important	(4)	36	33	38	39	35
Somewhat important	(3)	38	38	38	38	35
Not very important	(2)	9	10	10	9	9
Not at all important	(1)	2	2	2	1	2
<i>Mean</i>		3.53	3.52	3.49	3.53	3.60

- Companies in the Midwest may review their energy consumption data slightly less than those in the rest of the US.

<u>Frequency of Reviewing Consumption Data</u>		<u>Total</u>	<u>Northeast</u>	<u>Midwest</u>	<u>West</u>	<u>South</u>
		(1249)	(315)	(378)	(356)	(423)
		%	%	%	%	%
Daily	(265)	3	3	3	3	3
Weekly	(52)	6	8	5	6	7
Monthly	(12)	40	39	40	36	41
Quarterly	(4)	19	18	19	23	19
Twice a year	(2)	7	8	7	7	7
Annually	(1)	14	14	16	13	12
Less than once a year	(0.5)	8	7	9	8	8
Don't know		3	3	2	3	2
<i>Avg. times per year</i>		17.1	19.0	16.0	18.0	17.4

- Those in the Midwest may also review their energy forecasts a little less frequently than companies in other regions.

<u>Frequency of Reviewing Forecasts</u>		<u>Total</u>	<u>Northeast</u>	<u>Midwest</u>	<u>West</u>	<u>South</u>
		(1249)	(315)	(378)	(356)	(423)
		%	%	%	%	%
Daily	(265)	1	2	1	1	1
Weekly	(52)	3	4	3	4	4
Monthly	(12)	20	19	21	19	25
Quarterly	(4)	25	27	23	23	23
Twice a year	(2)	10	11	10	12	10
Annually	(1)	25	23	26	25	22
Less than once a year	(0.5)	9	7	10	9	10
Don't know		7	8	7	7	7
<i>Avg. times per year</i>		8.1	11.1	8.2	9.4	9.3

- And companies in all regions are paying more attention to energy efficiency than they were one year ago. The extent to which they are doing so does not vary by region: In all regions, about one-fourth of companies are paying a lot more attention and about 40% paying a little more attention than year ago.

		<u>Total</u>	<u>Northeast</u>	<u>Midwest</u>	<u>West</u>	<u>South</u>
<u>Attention Paid to Energy Efficiency Vs. Year Ago</u>	(1249)	(315)	(378)	(356)	(423)	
	%	%	%	%	%	%
Paying a lot more attention now	(5)	23	25	22	23	24
Paying a little more attention now	(4)	39	42	43	39	38
Paying about the same attention	(3)	33	29	30	33	33
Paying a little less attention now	(2)	2	2	2	3	2
Paying a lot less attention now	(1)	*	1	-	-	*
Don't know		3	2	2	2	3
<i>Average</i>		<i>3.86</i>	<i>3.90</i>	<i>3.88</i>	<i>3.84</i>	<i>3.84</i>

- Tolerance for a ROI in energy efficiency does not vary from region to region. The majority of companies require a ROI of five years or less.

		<u>Total</u>	<u>Northeast</u>	<u>Midwest</u>	<u>West</u>	<u>South</u>
<u>Tolerance for ROI on Energy Eff. Investment</u>	(1249)	(315)	(378)	(356)	(423)	
	%	%	%	%	%	%
1 year or less	(1)	8	8	8	6	9
2 to 3 years	(2.5)	34	35	37	35	38
4 to 5 years	(4.5)	30	28	31	30	25
6 to 9 years	(7.5)	10	10	10	12	10
10 to 15 years	(12.5)	5	6	5	6	5
More than 15 years	(17.0)	1	-	1	1	*
Would not require ROI		3	3	2	3	4
<i>Average Maximum ROI period</i>		<i>4.3 yrs</i>	<i>4.3 yrs</i>	<i>4.2 yrs</i>	<i>4.6 yrs</i>	<i>4.1 yrs</i>

- In all regions about one-in-five companies have relaxed their tolerance for ROI compared to 5-years ago.

		<u>Total</u>	<u>Northeast</u>	<u>Midwest</u>	<u>West</u>	<u>South</u>
<u>ROI Tolerance Compared to 5-Years Ago</u>	(1249)	(315)	(378)	(356)	(423)	
	%	%	%	%	%	%
Company will allow longer payback period today		18	19	18	19	17
Allowable payback period has not changed		45	44	46	49	49
Company allowed longer payback 5-years ago		10	11	10	8	11
Don't know		26	25	26	24	24

- Close to 80% of companies in all regions will consider (or have considered) energy efficiency in the design of retrofit or new construction projects.

	<u>Total</u>	<u>Northeast</u>	<u>Midwest</u>	<u>West</u>	<u>South</u>
<u>Consideration of Efficiency in Construction Projects</u>	(664)	(170)	(196)	(211)	(235)
	%	%	%	%	%
Energy eff. was/will be a design priority	77	78	78	79	76
Energy eff. was not/won't be a priority	18	19	18	18	19
Don't know	5	2	5	3	5

- The relative influence of cost savings and environmental responsibility in energy management decisions are consistent across companies in all regions. Environmental responsibility is a factor but cost savings is the primary motivator for achieving energy efficiencies.

	<u>Total</u>	<u>Northeast</u>	<u>Midwest</u>	<u>West</u>	<u>South</u>
	(1183)	(299)	(358)	(339)	(399)
	%	%	%	%	%
100% cost savings	(7)	6	5	3	6
Mostly for cost savings	(6)	24	24	25	26
Somewhat more for cost savings	(5)	22	26	23	21
50% cost savings/50% environmental	(4)	35	34	32	34
Somewhat more for environment	(3)	7	5	8	9
Mostly for environmental responsibility	(2)	5	4	6	4
100% environmental responsibility	(1)	1	1	2	1
<i>Mean</i>	<i>4.68</i>	<i>4.74</i>	<i>4.68</i>	<i>4.56</i>	<i>4.70</i>