



Energy: The Currency of the Data Centre

Executive Summary

Independent market research commissioned by Sentrum
compiled & produced by Dynamic Markets



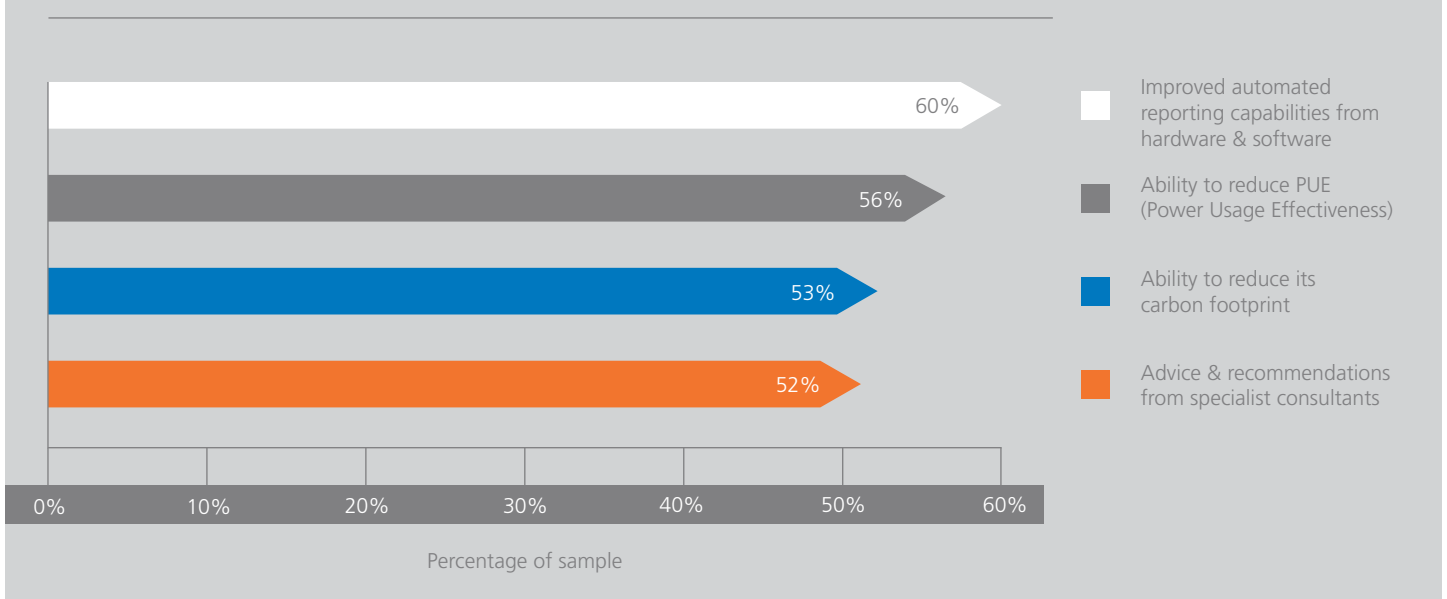
Green in the Data Centre?

Welcomed Improvements

A large part of the focus of this research is on the subject of energy efficiency in the data centres of large UK organisations, and it shows that almost all of these senior IT professionals (99%) would welcome some form of improvement when it comes to energy consumption in their data centres.

Top of the list is a requirement for improved automated reporting capabilities about their energy consumption from their existing hardware and software (60%) [Chart 1].

Chart 1: Requirements when it comes to data centre energy consumption



This is followed closely by 56% who want the ability to reduce the Power Usage Effectiveness (PUE); and another 1 in 2 (53%) would welcome the ability to reduce the carbon footprint of their data centre. A similar amount (52%) would welcome advice and recommendations from specialist consultants about energy consumption in their data centres, although the research suggests that this is often not forthcoming or is even inaccurate when offered.

The research also shows that 85% of large organisations now outsource at least part of their data centre space requirements, which is a significant rise on the 43% reported in 2008.¹

In fact, when it comes to selecting data centre operators / facilities, 90% have found it difficult to determine the energy efficiency between different providers: indeed, 12% go as far as saying they have found it extremely difficult, and more CIO / director-level IT professionals (30%) have experienced this, compared to senior IT managers (7%).



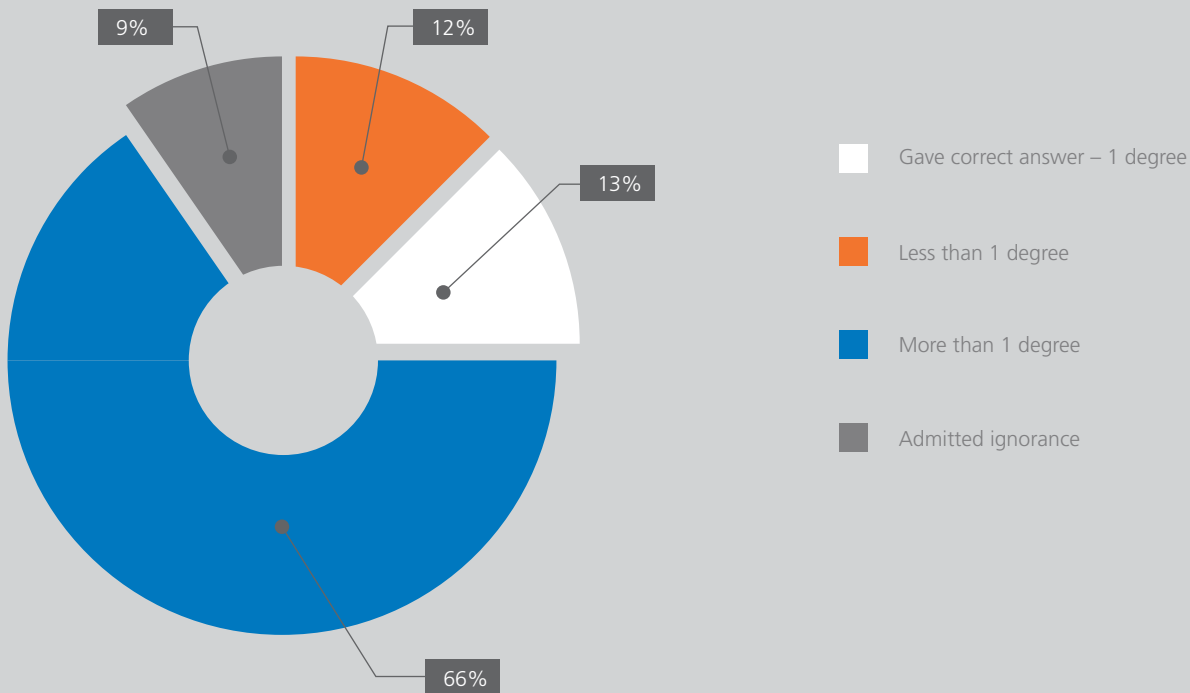
¹ Source: "Accommodating the Data Centre" Dynamic Markets 2008

Small Changes?

The research also shows that there is still a need for further education among senior IT professionals in large companies with respect to how to make their data centres more energy efficient, thus greener, and also cheaper to run.

When specifically asked, opinion among these senior IT professionals is divided on the subject of how much of an increase in temperature in the data centre would be needed to make substantial energy and thus cost savings.

Chart 2: Increases in data centre temperature required to make significant cost savings



In fact, the correct answer is just 1 degree centigrade², but only 13% gave this answer, meaning 87% did not [Chart 2]. 9% are more optimistic and think it would be less than 1 degree, but most (66%) think it would be more than 1 degree - indeed, the average figure cited is 3 degrees centigrade.

Furthermore, more than 1 in 10 IT managers (12%) admit they do not know how much of an increase in temperature would be needed to have such an impact on the data centre. Also, none of the CIOs / director-level IT professionals knew that such a small increase of 1 degree centigrade in the data centre can have such an impact; in fact, more of them (29%) think the increase would have to be as much as 5 degrees centigrade.

Interestingly, there is no correlation according to whether consultants were used to advise on the specification of their most recent data centre build and the respondents' insight on this issue, suggesting sound advice on this matter is not currently being given by consultants advising on data centre specifications.



² Source: Based on work carried out with Sentrum's clients and Best Practice advice from Gartner (2008).

Price Fixing?

With energy prices having risen so dramatically over the last few years, it is not surprising that almost all IT professionals (99%) specified a time period for which they would like to fix the price of their power supply for their data centre – with the average being 2.1 years. But 16% of companies would welcome such agreements for 5 years or more; but many (46%) would welcome them for less than 2 years.

Interestingly, CIO / director-level IT professionals would welcome shorter fixed terms on such deals, the most popular being 6 months, but their answers are also more varied than those of the senior IT managers in the sample.

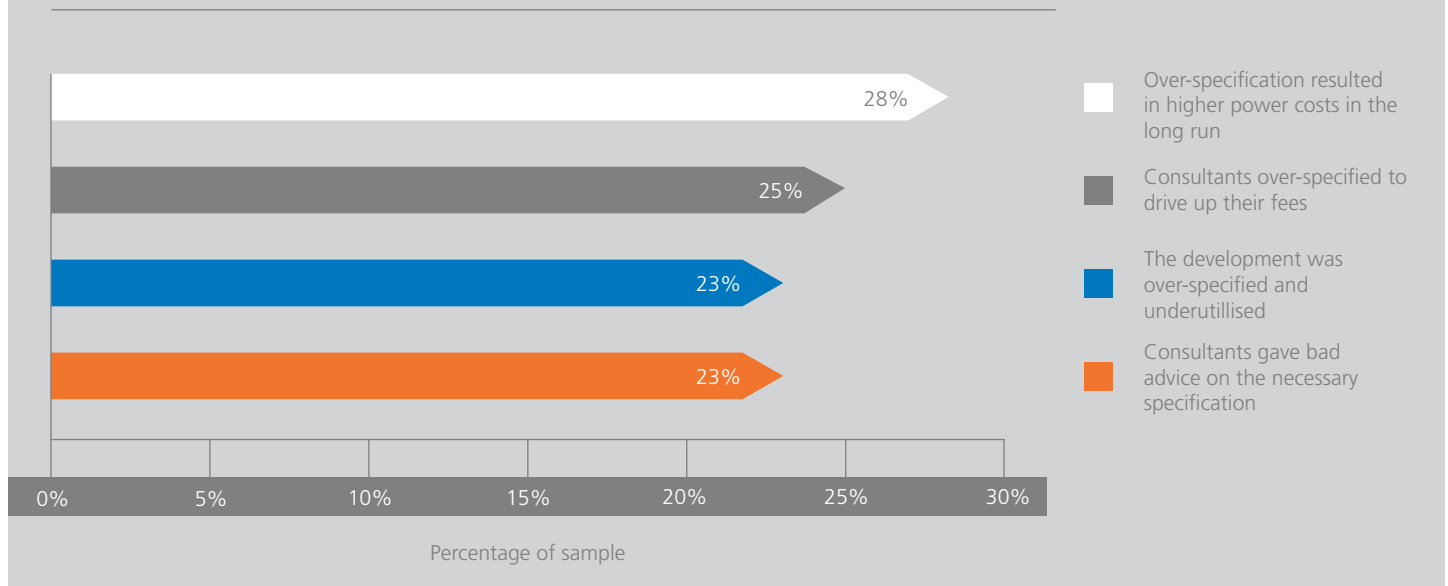
Poor Specifications?

Problems

The research also set out to explore the role of consultants in the design and specification of data centres: it shows that 1 in 2 (48%) organisations used consultants on their most recent data centre development to advise on its specification. But the research shows that there is no difference in the proportion of people who had problems with over-specification and underutilisation and whether they used consultants or not – consultants are clearly not helping in this area and sometimes even hindering improvements towards energy efficiency.

Indeed, irrespective of consultants' involvement in the specification of data centres and whether or not space requirements are outsourced or in-house, almost 1 in 4 (23%) organisations say their latest development was over-specified and underutilised [Chart 3]. This is important because over-specification results in higher power costs in the long run and 28% of the sample have experienced this. However, 25% found that consultants actually deliberately over-specified to drive up their fees, and another 23% found consultants gave bad advice on the specification.

Chart 3: Specification issues with recent data centre developments



Indeed, the research shows that some people who did not actually use consultants on the last build were offered poor advice by them about the specifications – presumably, the organisation did not then go on to employ the consultants, possibly recognising the advice as inappropriate.

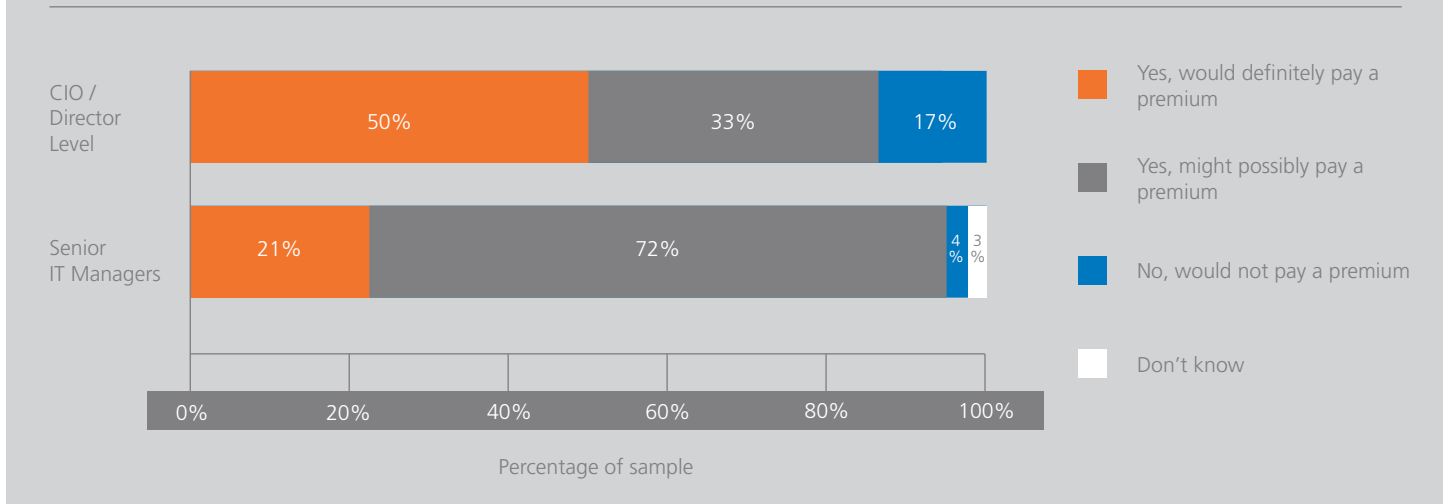
It also indicates that some respondents who used consultants on the build only discovered the advice was poor after the event.

Paying a Premium

It is not surprising then that, when it comes to the next data centre site they build, 91% of senior IT professionals would consider paying a higher fee for consultants advising on the specification if they were able to bring the project in under budget.

In more detail, 28% are definite about this, while another 63% say they might possibly consider this [Chart 4]. But 1 in 2 (50%) CIOs / director-level respondents would definitely be willing to pay such a premium, compared to just 1 in 5 (21%) senior IT managers.

Chart 4: Willingness to pay a premium to consultants who enable projects to come in under budget: by level of seniority



EU Code of Conduct

Awareness of Code

Continuing on the subject of energy efficiency, 95% of senior IT professionals have heard of the EU's new Code of Conduct on Data Centre Energy Efficiency, which was introduced at the end of 2008; but the research shows that 71% are not fully up to speed on it more than 6 months down the line. 54% admit they are only aware of some of the detail; and another 12% say they have heard of it, but are not at all familiar with it - 5% admit they have never even heard of it.

Interestingly, those who outsource some or all of their data centre space requirements are better informed about the new EU Code of Conduct. Also, CIOs / director-level IT professionals are generally better informed about the new Code than senior IT managers, with 58% of them claiming to be fully up to speed on it.

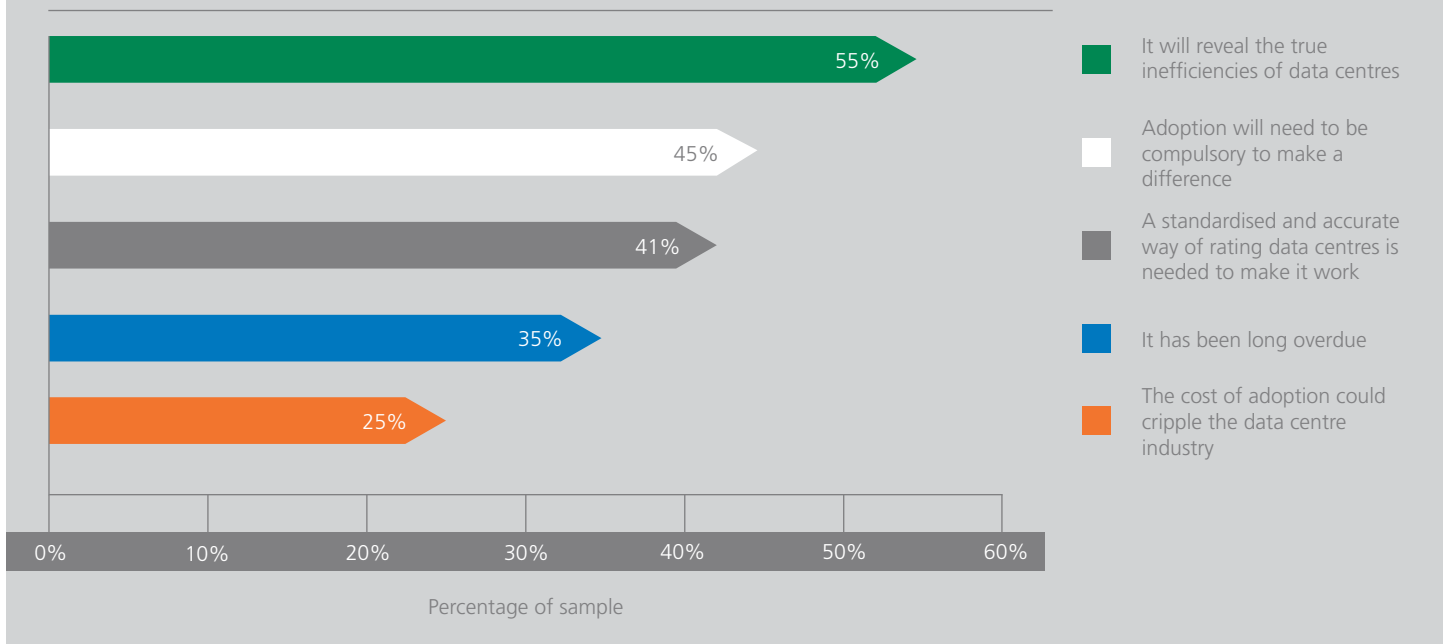


Opinion on Code

Despite people's lack of knowledge on the detail, 55% think the new Code will reveal the true inefficiencies of data centres [Chart 5]. However, 45% think adoption will need to be compulsory to make a difference, which at present it is not. And 41% believe a standardised and accurate way of rating data centres is needed to make the Code effective.

While 35% think such a Code of Conduct has been long overdue, 1 in 4 (25%) think the cost of adoption of the Code could cripple the data centre industry – and this applies to 38% of those who are fully up to speed on the contents of the Code.

Chart 5: Views on the EU Code of Conduct on Data Centre Energy Efficiency



Adoption of Code

When asked about the likelihood of their company adopting the new EU Code, it is revealed that only 12% of these organisations have already adopted it. But, collectively, 77% say they are likely to do so in the future, which includes 33% who are very likely to do so and another 44% who describe themselves as quite likely to adopt the Code.

In general, those who outsource all or some of their data centre space requirements are more likely to adopt the new voluntary Code, following the current trend of adoption. Perhaps not surprisingly, among those who are fully aware of the Code, more have already adopted it, whereas more of those who are not fully up to speed on it say they are only quite likely to adopt it. In contrast, almost 1 in 10 (8%) say they are unlikely to adopt the Code.



Research Methodology

This report was commissioned by Sentrum and details quantitative research with 100 senior IT professionals across a wide variety of industry sectors and in large organisations with 250 or more employees.

All respondents confirmed prior to interview that they were an IT professional with responsibility for the company's data centres from an operational and / or strategic perspective. They also confirmed their level of seniority: 24% are at CIO / director level and 76% are at senior manager level.

The findings of this quantitative survey have been analysed systematically and compared according to respondents' level of seniority, whether data centre space requirements are outsourced, whether consultants were used to advise on the specification of their most recent data centre build and respondents' awareness of the new EU Code of Conduct.

Where any differences exist that are significant at a 95% confidence level and relevant to the overall findings, they are described accordingly.

The interviews were conducted using an online panel hosted by GMI between 18th and 29th May 2009. Before and during the interviews, respondents were not aware that Sentrum had commissioned the research.

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