ENERGY POLICY RESEARCH & IMPLICATIONS FOR DATA CENTRES IN EMEA

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NEW REPORT DETAILS 28 TYPES OF ENERGY POLICIES AFFECTING DATA CENTRES IN 12 COUNTRIES

Summary includes key trends, voluntary mechanisms, costs and incentives influencing design, building and operations in EMEA.

Energy security, energy prices and climate change have dramatically risen toward the top of the policy agenda in Europe, Middle East and Africa (EMEA), resulting in comprehensive policy enhancements in many countries. Recent years have seen the introduction of a range of new policies internationally, such as new carbon trading schemes, Feed-in Tariffs (FITs) and the tightening of existing policies and building regulations.

At the same time, recent challenging economic conditions and market and technology developments have resulted in a rapidly fluctuating, difficult-to-track policy environment. Government commitments to tackling climate change remain largely intact. Yet, many countries have made significant reductions in their FIT regimes supporting photovoltaics (PV). Others, such as Italy, France and the Netherlands, have either scaled back or abolished their ambitions for taxing carbon.

Amidst all of this, the data centre industry continues to keep a watchful eye on these developments. Because of the continued proliferation of data centres with energy intensive requirements, our industry is particularly affected by legislation driving efficiency of design, build and operations — above and beyond the business impacts of increasing costs of energy and of carbon.

In the full version of this white paper, Energy Policy Research & Implications for Data Centres in EMEA (see Appendix A for complete table of contents), The Green Grid identified existing and emerging energy policies affecting the data centre industry. The report gives detailed assessments of each policy listed in the following chart.
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<th>Kingdom</th>
<th>France</th>
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The paper goes on (see Appendix A) to divide key policies, trends and regulations into four categories for each country, including sections detailing financial costs and incentives:

- **Regulatory Obligations:** All countries we reviewed have implemented increasingly demanding building regulations, perhaps one of the key policy mechanisms employed to deliver higher levels of energy performance. This is particularly the case in the EU, where EPBD will continue to aim for “nearly carbon neutral” development. And many other mandatory regulations are emerging, such as obligatory performance requirements to be introduced in 2018 in the UK.

- **Reputation Drivers/Voluntary Mechanisms:** Local voluntary building certification schemes have been implemented in all countries reviewed in recent years, and are likely to continue to be an increasingly important consideration. Voluntary labeling systems, such as the European Ecolabel, Germany’s Blaue Engel (Blue Angel) Ecolabel, South Africa’s Green Star and the UAE’s Zayed Future Energy Prize, are designed to encourage businesses to develop and market products and services that are kinder to the environment. Other voluntary initiatives, such as the Green Digital Charter have created partnerships between cities (24 to date) and the Information and Communication Technologies (ICT) sector to reduce carbon emissions by 30% by 2020.

- **Financial Costs:** Ambitions for adding costs to carbon have generally been scaled back as the economic crisis and opposition to such taxes persists. The likely growth of “green taxes,” along with increasing fossil fuel prices, however, means that the cost of energy and carbon will remain an important driver for energy efficiency in the sector. The EU has established the EU ETS, which presents an indirect cost to data centres operating across the EU. The UK, Italy and Switzerland have established carbon taxes. Policy innovations, such as carbon trading, have emerged in a number of countries, perhaps most notably the UK CRC Energy Efficiency Scheme (a carbon trading scheme introduced in 2010) and the Swiss voluntary carbon-trading scheme (enabling participants to opt out of the carbon tax by joining the carbon trading scheme).

- **Financial Incentives** have been established in many of the countries reviewed, in particular through the establishment of electricity Feed In Tariffs (FITs), which are in force in all countries apart from four in the report. Additional FITs have emerged, such as the Renewable Heat Incentive launched on 28 November 2011 in the UK and a CHP tariff in Germany. These have, without exception, seen significant changes over recent years and months due to trends in technology prices, demand and government finances changing.

The following graphic provides an overview of the current regulatory climates within each of the 12 countries detailed.
KEY POLICY MECHANISMS: Costs and Incentives

Colour Key:
Red: High regulatory requirements or cost.
Orange: Moderate regulatory requirements or cost.
Green (dark): High voluntary options or incentives.
Green (light): Moderate voluntary options or incentives.

To be successful, data centre builders and managers will need to effectively negotiate the uncertainty of this complex policy environment, continue to invest in energy efficiency, benefit from incentives provided by countries and be prepared to exploit the opportunities arising from policy innovations as they continue to emerge.

This white paper is available to members of The Green Grid as a benefit of membership. The white paper is available to non-members for a purchase price of US $200.

The Green Grid is a global consortium of companies, government agencies, and educational institutions dedicated to advancing energy efficiency in data centres and business computing ecosystems. The Green Grid does not endorse vendor-specific products or solutions, and instead seeks to provide industry-wide recommendations on best practices, metrics, and technologies that will improve overall data centre energy efficiency.
efficiencies. Membership is open to organizations interested in data centre operational efficiency at the Contributor, General, or Associate member level. Additional information is available at www.thegreengrid.org.

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