March 11

the inside track #22

Highlighting CSR Issues of the moment

Energy efficiency - what awaits you round the corner

Recently, the EU published two climate change documents - “The Roadmap for moving to a competitive low carbon economy in 2050” and “Energy Efficiency Plan 2011” (EEP).

Despite these lofty titles, readers may be forgiven for having paid them little attention. Yet, they include important statements - and new legislative requirements.

The Roadmap focuses on the required performance for the 2020 and 2050 emissions targets. The former include:

- 20% emission reductions;
- 20% renewables in EU's energy mix;
- and 20% energy efficiency.

The EU expects to achieve the first two, but not the third. The EU 2050 objective is 80-95% emissions reduction over 1990 levels.

The EU currently anticipates only half of the 2020 energy efficiency target will be reached and so achieving the 2050 objective is exercising minds. Attainment assumes energy technology developments (low carbon energy sources, carbon capture and storage, smart grids and hybrid and electric vehicle technologies) deliver fully on time. For example, the power generating sector is planned to reduce emissions by 93-99% by 2050!

Additionally the Roadmap highlights improving land use productivity (reducing non CO_2 emissions), improving vehicle fuel efficiency, and reducing emissions in the built environment. The last includes buildings' energy performance. It also highlights the potential of significant investment levels and jobs created with this low carbon strategy.

EEP's short term focus is to correct 2020 shortfalls and states greatest energy saving potential lies in buildings, with transport second. The effectiveness of national states' efficiency targets is questioned and the Commission will review progress in 2013. If it is likely national states would not achieve the 2020 target, then legally binding national targets would be imposed.

EEP focuses on three key areas -public sector, low energy buildings, and industrial energy efficiency.

The public sector, with 17% of EU GDP and 12% of EU building stock, is tasked to lead by example. This includes introducing energy efficiency into public sector procurement, renovating public buildings to higher energy performance, implementing “energy efficiency on the ground” (linked to The Covenant of Mayors, signed by 2,000+ EU cities) and energy performance contracting as part of building refurbishment.

The focus on low energy buildings is because c40% of energy consumption is in houses, office and shops - two thirds being space heating. Measures considered include district heating; tackling the landlord/tenant responsibility for upgrading energy performance; investing in training schemes to develop skills necessary to introduce energy efficient building solutions; and using energy service companies (ESCOs) as the catalyst for renovation.

Industrial energy efficiency will primarily be addressed through ensuring efficient generation of heat and electricity. Intensive energy users, such as utilities, are subject to the Emissions Trading Scheme and the new Industrial Emissions Directive, but there is increased focus on use of cogeneration, such as municipal waste treatment plants, and district heating. There is a proposal that Member States establish national energy saving obligation schemes, whereby profits of utility companies are linked to energy efficiency rather than volumes of energy.

For industrial companies, SMEs are proposed to be addressed through greater information provision and incentives, but large companies will have mandatory regular energy audits. Similarly ecodesign requirements for industrial machinery and equipment are likely to be introduced.
To support energy efficiency technological developments, improvement in current financial support is being reviewed. The EU will also review policy solutions affecting consumers to determine those more able to bring about changes in consumer behaviour.

Transport, recognised as a key area for energy savings, is the subject of a separate White Paper, including initiatives such as introducing a Single European Transport Area to promote multimodal transport.

TVC comment overleaf >

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the virtuous circle comment: #22

Most companies are just coming to terms with the latest changes on the CRC. The Government's announcement in the recent budget on the carbon pricing floor reinforces the Government's intent on the low carbon economy. Indeed the floor price of £16 per tonne until 2020 is likely to impact on future pricing for CRC allowances.

However the EU documents indicate a significant rise in tempo - CRC is just 'the tip of the iceberg'.

Whilst the Roadmap is long term, its success depends on EEP's viability. The latter contains both business opportunities and incremental costs. For incremental costs, businesses should anticipate **across all their operations in EU states:**

- increased energy costs from the change in utilities' profit linkages;
- increased use of energy and carbon taxes (similar to CRC);
- energy audits (linked with incentives for companies to introduce energy management systems);
- advanced equipment replacement cycles, leading to increased investment.

Since the objective of these incremental costs is to improve energy efficiency (less energy consumption for the same production output), a lower net cost to companies is possible, but, nevertheless companies will incur considerable effort. Much of EEP is dependent on power generation improvements, including assumed investment in nuclear plants. The disaster at Japan's Fukushima plant may restrict such investment, leading to higher energy costs and the need to achieve reduced emissions through other means, including additional carbon taxes.

However, for companies in a position to respond proactively, many business opportunities will arise.

First, the public sector “leading by example” offers one opportunity - the renovation of public buildings. Public authorities will be required to refurbish at least 3% of their buildings each year. This is twice current prevailing rates, and requires considerable new investment. Encouragement of energy performance contracting, such as upgrading energy efficiency of public lighting, represents a business opportunity across Europe. But probably the biggest opportunity, for prepared companies, will be a focus of public procurement selection on criteria that take the energy efficiency of suppliers into account - some suppliers may not make the grade.

Then there is the focus on ESCOs, which deliver energy efficiency improvements (accepting financial risk by covering upfront costs through savings achieved). The EU estimates this market to be worth €25bn, yet current suppliers are achieving a maximum of €8.5bn. The EU proposes measures to facilitate market growth.

Lastly, there is the range of incentives, including potentially expanding financial support, improving consumer awareness of energy efficiency (including the use of technology), and fostering research and development into energy efficient technology. All will help facilitate development of the energy efficiency marketplace.

In terms of timing, the binding measures in the plan will be implemented with a series of legislative instruments, many of which will be put in place during 2011.

The EU's EEP will cause companies to review their overall position on energy efficiency. The combination of incremental costs and business opportunities should cause many Boards to take greater interest in their companies' energy management. For many, it will be the first time they have to consider the impact of legislated incremental costs of energy efficiency across all their EU operations.

These costs can only be mitigated through strategic decision making. Boards need to ensure energy management is an integral part of business strategy - both managing costs and capturing business opportunities.

If you are facing CRC challenges, and would like an objective and impartial view on business processes, including software solutions, contact
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