

19. UNITED KINGDOM

(Statistics are estimates from www.eia.doe.gov)

Population (2002): 59.8 million

Electrical Generation Capacity (2000): 72.4 GW (79.8% thermal, 17.9% nuclear, 2.0% hydro, 0.2% other)

Electricity Generation (2000): 355.8 billion kWh

Electricity Consumption (2000): 345.0 billion kWh

Mechanism:	Required energy savings targets with penalties for non-compliance
Creation:	Legislative
Duration:	April 2002- March 2005
Administration:	Office of Gas and Electricity Markets (Ofgem)
Budget:	~500million pounds over three years
Name:	Energy Efficiency Commitment (residential)
Benefit Measure:	Cost per tonne C saved
Incentives:	Market-driven

Survey Questions

1. Process and timeline

From 1994-2000, under the Energy Efficiency Standards of Performance Program (EESoP), electricity suppliers (and, later, gas suppliers) were obliged to achieve specified energy savings in the domestic (i.e. residential) and small business sector using a special revenue allowance. In 2000 the allowance was 1.2 pounds/customer/fuel/year.

The Utilities Act 2000 transferred responsibility for EESoP from the regulator to the Department of the Environment, Food and Rural Affairs (Defra) beginning April 2002. The new program, the Energy Efficiency Commitment (EEC), requires major electricity and gas suppliers to meet environmental targets by focusing on domestic customers, with an emphasis on elderly and low-income households. There is no longer a specific levy. Energy savings goals increased three-fold, and suppliers have discretion to pass on costs to their customers.

2. Organizational structure

The Department of the Environment, Food and Rural Affairs (Defra) sets the overall environmental targets and determines the measures to achieve them.

The present Administrator is the Office of Gas and Electricity Markets (Ofgem), the national regulatory body. Ofgem determines which efficiency measures qualify and the savings attributable, approves proposed schemes, and monitors suppliers' performance against their targets. Ofgem apportions each supplier's target based on customer numbers with rules established by Defra. Ofgem oversees trading between suppliers, and advises Defra on the

most cost-effective means to achieve targets. Ofgem can fine non-compliant suppliers.

Gas and electricity suppliers (“suppliers”) in the UK with 15,000 domestic customers or more have energy savings targets, which must be achieved between 2002-2005 by installing energy efficiency measures in homes. Suppliers can contract out the work, do it themselves or enter collaborative arrangements. Suppliers submit schemes for Ofgem approval, but can begin work in the month before submission, at their own risk.

3. Funding mechanisms

Suppliers can pass on to customers as much of the energy savings costs as makes good business sense in the newly competitive supply market. Expenditures are estimated to be up to 3.60 pounds per customer per fuel per year to meet the energy efficiency targets. This is estimated to result in close to 500million pounds over the three-year period. Suppliers can trade either their obligations or their energy savings from approved measures to another supplier. However, since suppliers get marketing value from the program, little trading activity is expected. Under the EESoP, 21% spending on administration and marketing was average. Suppliers now have incentives to be more cost-effective.

4. Association with a long run resources plan

The EEC is one component of the UK Climate Change Programme, which is a comprehensive package of plans, programs and policies to meet the UK’s Kyoto and domestic commitments to reducing CO₂ and other greenhouse gases (GHG). In addition, Ofgem must report annually to Defra on the EEC results.

5. Guidelines for program effectiveness and success

The UK has a legally binding target under the Kyoto Protocol to reduce its GHG emissions by 12.5% compared to 1990 levels for the 2008-2012 period, and a domestic goal to reduce CO₂ emissions to 20% below 1990 levels by 2010. The EEC is expected to contribute by reducing GHG emissions by around 0.4million tonnes Carbon/year by 2005. Defra has set the overall target for the Commitment at 62 fuel-weighted TWh reduction by 2005, including “deadweight” (free riders).

Ofgem provisionally divided the target among 11 supplier groups. Targets will be adjusted according to customer numbers at the end of 2002 and 2003. Suppliers can achieve EEC obligations through residential consumer savings of electricity, gas, coal, oil or LPG.

At least 50% of savings must be targeted at low-income customers (e.g. receiving income-related benefits or tax credits).

6. Pre-implementation program evaluation guidance

Ofgem issued a technical manual to provide guidance to suppliers delivering efficiency measures. Ofgem determines whether proposed actions qualify for the purpose of meeting

the obligation. Ofgem determines what savings are attributed to the action, using recognized sources. Ofgem collects data on each scheme to estimate the actual energy savings achieved.

Specific improvements, already proven to be cost-effective, are expected under EEC including: wall and loft insulation, A and B-rated boilers, A-rated appliances, tank insulation, CFL's, draft-proofing, heating controls and fridge-savers (trade-in). Defra anticipates results will include 1 million homes with improved insulation, 750,000 energy efficient appliances, and 36 million EE lighting fixtures.

Ofgem will measure environmental progress using energy efficiency data including the amount of money spent on schemes, TWh of electricity saved, and tonnes of CO2 saved.

7. Results of program evaluation

The program is too new for evaluation results. Ofgem uses contractors to help with the oversight of the EEC. The cost of oversight comes from Ofgem's budget, paid for through licenses. Ofgem will collect data to compare the total costs of the program against the economic, social and environmental gains from the program.

During the EESoP, Ofgem was assisted by the Energy Savings Trust (EST) in assessing suppliers' compliance with targets. Results were verified by the National Audit Office. The EST found for every 1pound invested customers benefited by about 4.6pounds in reduced energy bills and increased comfort. EST continues to provide expert advice to Ofgem.

EST estimates the last two years of the EESoP will result in lifetime savings of 2.3million tonnes of Carbon, 8.6million tonnes of CO2, 80,800 tonnes of SO2 and 27,900 tonnes of NOx.

8. Financial incentives

The Government's EEC proposal indicated that "it will be up to suppliers to meet their targets cost-effectively: there will not be a specified amount of money that a company must spend in doing so." Since the costs of the program impact the suppliers' bottom line in a competitive market, suppliers have an incentive to operate the schemes efficiently.

Issues and Special Situations

Climate Change Levy (CCL)

The CCL was announced in November 1999 is an energy tax on the non-domestic sector (industry, commerce, agriculture and public sector) beginning April 2001. Rates are based on the energy content of different energy products, equivalent to 0.07pence/kWh for LPG; 0.15pence/kWh for gas and coal, and 0.43 pence/kWh for electricity. Energy intensive sectors with binding commitments (negotiated with Defra) to meet energy efficiency or carbon savings targets get up to 80% discounts on CCL rates

Revenue from the levy is expected to be around 1 billion pounds in 2001/2002. Most CCL revenues are returned through a reduction in employers' National Insurance contributions.

The Carbon Trust will use about 50 million pounds/year from CCL funds to conduct Carbon saving programs for business and industry. The Carbon Trust will also manage the Enhanced Capital Allowance Scheme (ECA), worth up to 200 million pounds over two years. The ECA gives 100% capital allowance against taxable profits in the first year for investments in any of the energy efficiency technologies on the list published by the Carbon Trust.

The CCL is expected to save at least 5 million tonnes of Carbon a year by 2010: half from negotiated commitments; half from price effects, the ECA and other programs.

Resources

Office of Gas and Electricity Markets (Ofgem), www.ofgem.gov.uk

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At this site you can view the EEC Administration Procedures, *Energy Efficiency Commitment 2002-2005: Technical guidance manual issue 1* and other papers.

The Environmental Action Plan Annual Review 2001-2002, June 2002, can be seen at

www.ofgem.gov.uk/temp/ofgem/cache/cmsattach/1993_42eap.pdf

Department for the Environment, Food and Rural Affairs (DEFRA)

www.defra.gov.uk/environment/energy/eec/index.htm

Final version of the UK Climate Change Programme is available at:

www.defra.gov.uk/environment/climatechange/cm4913/index.htm

The Energy Savings Trust, www.est.org.uk/est/index.html

Independent non profit organization set up in 1992 to promote the efficient use of energy in the domestic, small business and transport sectors. Originally funded by a levy on gas and electricity customers. Presently bulk of funding provided by the government.

The Carbon Trust, www.thecarbontrust.co.uk

The Carbon Trust is charged with developing a fully integrated program of incentives for business-related carbon saving, including energy efficiency.

Review of Energy Efficiency, CO₂ and Price Policies and Measures in EU Countries and Norway in 2001 www.odyssee-indicators.org/Publication/PDF/UK-p01.pdf

UK Energy Efficiency Update, November 2001

www.iea.org/pubs/newslett/eneeff/uk.pdf