

Sustainable energy supplies in County Waterford

WATERFORD COUNTY COUNCIL, IRELAND

Procurement objectives

In the period 2008 – 2010, Waterford County Council procured €53m worth of capital projects. The objectives of the Council's GPP activities are to:

- Reduce the carbon footprint of the Council;
- Stimulate the green market;
- Identify efficiencies and savings; and
- Illustrate the merits of green procurement to other public sector organisations.

In 2009, a tender for the supply of electricity offered the opportunity to pilot the Council's GPP approach.

Background

Waterford County Council is implementing GPP as part of a broader move towards sustainable development across its policies. This includes a focus on the well-being and health of citizens, infrastructure for transport, water, waste and wastewater management, increased use of ICT and sustainable production and consumption of energy and food.



Criteria used

Using the open procedure, tenders were invited for the supply of a total of approximately 6,600 MWh per annum of electricity to Waterford County and City Councils.

Subject matter of the contract: Supply of electricity to various facilities operated by Waterford County and City Councils including civic offices, fire stations, libraries, water pumping stations and sewage pumping stations.

Technical Specifications: Three of the five lots specified the supply of "green electricity", where "green" was defined as 'the ability to supply electricity from a source that meets the criteria for 'renewable' supply as set out in the Electricity regulation Act 1999, which can include wind, hydro, biomass, waste (including waste heat), biofuel, geothermal, fuel cells, tidal, solar or wave.

Award Criteria:

The tenders were marked out of 100 (points) on the basis of the following criteria:

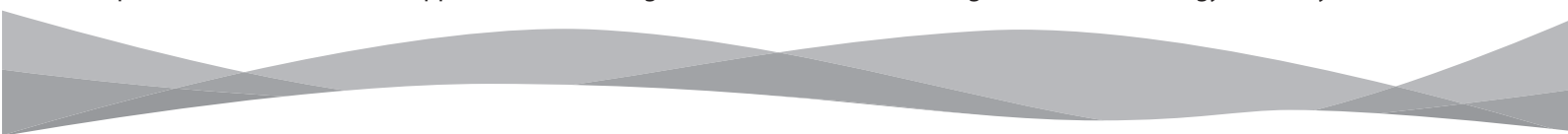
- Price: 75
- Renewable Energy Supply (above minimum requirement, but within scope of tender): 10
- Availability of a web-based energy management facility to include energy usage history and analysis: 10
- Ability to provide billing information in an electronic format compatible with that used by the County and City Council: 5

These last two criteria were included to enable improved management of the energy supply processes.

Contract Performance Clauses: A self-regulatory approach was applied whereby the energy supplier certifies that the electricity supplied is from 100% renewable resources.

Results

The energy supplier appointed has confirmed that 100% of the energy supplied is from renewable sources. As a result of this tender and changes to Waterford's energy management, its metered bill reduced from €1.54m in 2008 to €1.24m in 2009, a saving of €300,000. Due to increased energy prices in 2010, the annual electrical bill increased to €1.35m, but a benchmarking exercise with the prices of the previous (non-renewable) supplier revealed savings of €80,000. Additional savings resulted from energy efficiency measures.



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Waterford County and City Councils have reduced the Maximum Import Capacity (MIC) at larger installations to match peak demand, which is now lower due to the energy management measures applied. In addition, the Councils have worked with the energy supplier to implement tariff audit processes, whereby each tariff was reviewed and, where appropriate, tariffs were restructured to yield cost savings.

Environmental impacts

Electricity generation based on fossil fuels is associated with high CO₂ emissions. The use of renewable energies in the electricity sector, together with reduction in energy demand, is one of the most effective measures for achieving climate protection goals. Demanding the delivery of electricity from renewable energy sources in public procurement can encourage the development of further renewable electricity capacity, as well as reducing the carbon footprint of the public authority. In this case, A total of 3,744,933 KWh/annum of electricity from non-renewable sources was replaced with renewable sources, leading to estimated CO₂ savings of approximately 2 million kilograms per annum.

The potential of localised renewable energy installations is also being harnessed in Waterford, with the installation of a number of micro wind turbines at remote water treatment plants, with the capacity to generate 7,000 KWh/annum each. The electricity generated by these turbines will be used on site and will displace imported electricity from the grid. Heat pumps, wood pellet boilers and solar water heaters have also been installed in local buildings and in social housing.

Lessons learned

A number of lessons have been learned:

- While Waterford County and City Councils trust the self regulatory system, there is scope to develop a process to independently validate that the electricity is generated from 100% renewable sources.
- The online billing and payment system represents a very efficient payment mechanism.
- Local authorities can secure savings by developing tariff audit systems.

In 2011, procurement of energy for local authorities was transferred to the National Procurement Service (NPS). Waterford County Council recommends that the NPS consider applying 'green' criteria for energy supply.