

Green electricity for Bremen's public buildings

FREE HANSEATIC CITY OF BREMEN, GERMANY

Procurement objectives

A public tender was published at the EU level by the City of Bremen to cover the electricity requirements for a number of local public entities, including Bremerhaven Municipality, from renewable energy sources. The initial contracting period was for two years – from January 2009 to December 2010, extended under the terms of the tender to the end of 2012. The contract is for the supply of 79 million kilowatt hours annually, with a total approximate cost of 7.5 million euro per annum.

Background

Green procurement of electricity by the City of Bremen was done for the first time in July 2008 in accordance with the policy and concept provided by the German Federal Environment Agency. Bremen adopted this practice to provide benefits for the environment in terms of reduced CO₂ emissions, foster the development of renewable energies, and allow the public sector to act as a model for other purchasers.



Criteria used

The approach to sustainable procurement used by the City of Bremen seeks to provide incentives for further investment in new (or additional) renewable energy facilities. Sustainability criteria were used as follows in the tendering process:

Pre-Procurement:

Market research was carried out prior to publishing the tender. Discussions were held with potential bidders and procurement strategies exchanged with other governmental agencies in order to define the terms of the tender.

Technical specifications:

- 100 percent of the supplied electricity from renewable energy sources
- Bids were required to deliver a minimum of 30 percent reduction in the amount of CO₂ emissions associated with the supply of the required electricity, as compared with the average national electricity mix recorded in the GEMIS database.
- Variant bids were permitted

Award criteria:

- Price (90 percent)
- Reduction in CO₂ emissions (10 percent)

The second award criterion was assessed on the basis of CO₂ reductions above the minimum amount specified. The maximum points were assigned to the tender presenting the greatest CO₂ reductions based on the identified generating facilities, with other offers receiving marks proportionately. For the assessment of CO₂ reductions, the bidders were required to complete a master data sheet outlining each of the facilities from which electricity will be sourced and the estimated percentage from each over the lifetime of the contract, as well as specifics of the generating methods used. The CO₂ reductions had to be calculated according to the [GEMIS database](#) with additional factors for the age of the facilities (100% reduction possible with new facilities, zero reduction calculated for facilities older than 11 years). The information contained in the master data sheet forms a binding part of the tender and its completeness and computational accuracy was checked as part of the tender assessment.

Results

Requests were made by seven companies for the full tender documents; however, only two companies presented bids. One of these companies submitted a variant. Although there were relatively few bids presented, the offers received met the requirements of the tender. Several enquiries were made by companies regarding the technical requirements and evaluation criteria. The additional costs

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associated with the green requirements included in the tender were calculated at about 0.1 cent/kWh, or approximately 69,000 euro per annum. Bremen's political mandate for green procurement enables it to absorb certain higher costs from switching to green electricity. The CO₂ savings associated with Bremen's purchase are estimated at 75 percent, compared to a supply from non-green sources.

Environmental impacts

Electricity generation based on fossil fuels is associated with high CO₂ emissions. The use of renewable energies in the electricity sector is one of the most effective measures for achieving climate protection goals, in addition to reducing electricity consumption levels. Demanding in public procurement the delivery of electricity from renewable energy sources is one of the most powerful tools to expand the production of renewables.

Lessons learned

- Bremen was pleased with the approach taken and the results. However, a technical recommendation has been made for future tendering actions of this nature regarding the method used to assess CO₂ emissions. The methodology currently provided by the German Federal Environment Agency is considered as being difficult to use, both by the tendering authority (in evaluating offers) and for the bidding company.
- The practice has afforded Bremen the opportunity to promote their initiative as an exemplary case for green procurement of electricity in Germany and in the EU.

For more information, please see European GPP criteria for electricity – [product sheet](#) and [background report](#).