

STATE OF BRANDENBURG (GERMANY)

Background

In 2009, the Parliament of the State of Brandenburg decided that at least 50% of the electricity procured by the State had to come from renewable sources. The tender following this decision achieved a share of 50% green electricity, where traceability was guaranteed. Due to this, a [State Parliament Resolution](#) (from 2011) required that subsequent tenders seek to purchase up to 100% green electricity. The current tender is in line with this 100% goal.

Procurement objectives

The electricity purchased by the State is used to power all public authorities and institutions, and universities – totalling over 200 properties covering some 1.2 million square metres of floor space. One of the important conditions set in this recent tender was that the origin of the electricity required traceability and certification.

Regarding traceability, this can only be guaranteed when the supplier (by issuing a Guarantee of Origin certificate) is contractually obliged to account for the full, uninterrupted supply chain of the electricity from its origin of production to the recipient. This form of certification is intended to ensure that green electricity is not sold twice, as it is physically indistinguishable from non-green electricity. This is an important factor in ensuring the credibility of green energy supply.

Criteria used

Subject matter of the contract: Electricity from renewable resources (green electricity) using a Guarantee of Origin scheme.

Technical specifications:

- Renewable sources were described as exclusively hydro (including wave, tidal wave, osmotic and marine current power), wind, solar, geothermal and energy from biomass (according to the German [Biomass Electricity Directive](#), including biogas, landfill and sewage gas).
- The supplied green electricity must have been demonstrably produced only from renewable sources.
- The origin of the electricity must be able to be individually traced and certified, that is, guaranteed. The Guarantee of Origin certificate must be issued through a nationally certified Technical Monitoring Organisation (Technische Überwachungsorganisation, TÜO) or an [EMAS](#) accredited environmental verifier. Alternatively, an equally suited evaluator can be used in consultation with the tenderer as long as the verification documents supplied comply with the German Directive on [proof of origin for green electricity](#).
- The environmental benefits achieved during the production of the green electricity shall be transferred to the [Brandenburg State Agency for Properties and Construction](#) once the electricity is provided.
- Double counting of the supplied electricity through green electricity labels or certificates is not allowed.
- Upgrading 'grey' electricity by buying [Renewable Energy Certificates](#) (RECS) for environmental benefit is not allowed.

Award criteria: The contract was awarded based on the lowest price.

Results

An open European-wide tendering procedure was used. A total of 14 companies submitted bids following the call for tenders. Seven bidders were able to supply the relevant documents and references required.

The contract will enter into force in January 2014. The price per kilowatt hour is similar to the one for conventional electricity; hence there is no additional expenditure.



Environmental impacts

Brandenburg estimated that 30,508 tonnes of CO₂ per year will be saved in comparison to their previous contract, where 50% of the electricity supplied was from renewable sources.

The most significant environmental impacts of electricity take place in the production phase, particularly regarding emissions of CO₂. Most electricity is generated by burning coal, oil and gas in power stations. This process releases millions of tonnes of CO₂ every year. Greater use of electricity from renewable sources has a huge potential to reduce CO₂ emissions. National policies setting requirements for renewable energy sources vary a lot. In Germany, the focus is on decreasing CO₂ emissions, with a strong 'additionality' aspect – that is, encouraging the construction of additional green electricity generating capacity; this is reflected in German electricity labels like [Grüner Strom Label](#) and [ok-power](#).

Lessons learned

All public contracts in Brandenburg are continuously monitored regarding their operative criteria (accounting, payments made, etc.). In this specific case, however, verifying the supply of green electricity requires extra monitoring activities. One of the obligations placed on the winning supplier is that they are required to supply the necessary documentation describing the origin of the electricity supplied, and at least on an annual basis (every 30 June) during the course of the contract. Documentation must match the sample certificates attached to the initial contract.

For future electricity supply tenders, Brandenburg will endeavour to go a step further in their environmental demands and ambitions and trigger the installation of new green electricity generating capacity.