Electricity: Procura+ Key Criteria - Extended version

1 Introduction

Public authorities are major consumers of electricity, estimated at between 6% and 7% of total European consumption[1]. They are significant energy purchasers, owning and operating buildings, streetlights, water supply and treatment facilities, etc. All of these systems use large amounts of energy that directly consume large quantities of fuel and electricity. Such a big market share represents the potential for achieving a vital shift on the demand side towards renewably generated electricity if efforts can be co-ordinated at the European level.

1.1. Key environmental impacts

Impact		Approach
• The generation of energy from fossil fuels is responsible for the vast majority of greenhouse gas emissions world-wide.	→	Increase the share of **electricity from renewable sources**
• The electricity generating industry accounts for a significant proportion of such emissions as the large majority of electricity is still produced by the burning of coal or gas.	→	Seek a genuine increase in **green electricity** going beyond national support schemes (= '**additionality**')

Over the last decade enormous advances have been made in the field of electricity generation from renewable sources such as wind and solar power, and this sector has seen a dramatic growth in percentage terms as costs have plummeted.

Green electricity has a huge potential to reduce CO_2 emissions. According to the RELIEF project[2], which quantified the potential environmental benefits of sustainable procurement, 18% of the EU Kyoto commitments could be fulfilled if all European local authorities switched their demand away from the conventional EU mix of electricity to "green electricity" – i.e. electricity produced from renewable sources. Even if only a fraction of this were achieved the environmental rewards would be highly significant.

Sources of "green electricity"

Deciding what is truly "green" electricity is not straightforward however. A number of different renewable energy sources (RES) exist – wind, solar, hydro, biomass, geothermal, tidal, wave – but these may also entail other environmental impacts. Large hydro power

[1] Pierrard (2003) "Results of the European Calculation" in Erdmenger, C. (ed.) „Buying into the Environment – Experiences, Opportunities and Potential for Eco-Procurement", Greenleaf, Sheffield 2003

[2] www.iclei-europe.org/relief

stations, for example, may have very damaging impacts on river eco-systems and local populations. Smaller hydro plants may also have a negative local impact without the compensating large generation of electricity. The use of biomass (such as dedicated energy crops, timber) may also have negative impacts if not properly regulated – use of chemicals in growing crops, reduction of land available for growing food, non-sustainable forestry operations.

1.2. Procurement considerations

It has been only in recent years that public authorities have had a choice over their electricity supplier, as a result of the liberalisation of electricity markets in the EU. Still, a number of countries have not fully liberalised their markets, and in others, despite formal liberalisation, current practices and market conditions prevent real competition.

Despite increasing liberalisation, in many cases public authorities are reluctant to tender for their electricity supplier preferring to remain (often against procurement rules) with their regular supplier. In many cases this is simply because utilities such as electricity have always been dealt with separately from other procurement, and procurers may simply not be aware of the opportunities for tendering.

Procuring green electricity is often a protracted procedure depending on the electricity need of the public body, the level of centralisation in purchasing, the national progress on electricity liberalisation, the national support scheme (see table 1), the offer of green electricity and the administrative procedures required. The "feed-in tariff" approach essentially guarantees a set price for any RES-generated electricity (up to a certain amount from any one power station). The "quota system" obliges electricity suppliers to ensure a certain percentage of the electricity they sell comes from RES.

Feed-in tariffs	Quota system	Tendering scheme
Austria (2003), Cyprus (2003), Czech Republic (2005), Denmark, Estonia (2003), Finland (1996)[3], France (1998), Germany (1991), Greece (1994), Hungary (2003), Latvia (1996)[4], Lithuania (2002), Luxembourg (1994), Netherlands (2003), Portugal (2001), Slovakia (2003), Slovenia (2000), Spain (1999), Ireland (2005)	Belgium (2002), Italy (1999), Poland (2001), Sweden (2003), United Kingdom (2002)	France (1995)[5]

Table 1: National support schemes for renewable energy in EU (year of introduction)[6]

Definition and verification

It is crucial for public procurers to be able to set a clear definition of what will be considered as green electricity, and what minimum targets they aim to achieve. Currently it is most practical (if not the strictest) to use the definition included within the Commission's RES-E Directive (see Section 1.4), as compliance can most easily be verified. At the same time,

3 Electricity Act 31 May 1996 was replaced by the Electricity Reform Agreement of 1999 and later by adaptations in 2001. The establishment of a Green Certificate market is planned.

4 The so-called double tariff system has been phased out by a less favourable scheme that started in 2003.

5 For wind farms larger than 12 MW

6 I.e. date when RES support mechanism came into force

public procurers must ensure that compliance with the criteria set can be reliably proven. Not all EU countries yet offer comprehensive systems for certifying the origin of the electricity consumed ("Guarantee of Origin" systems) in compliance with the Renewables Directive (see Section 1.4). However, a tradable certificate (e.g. RECS) from an independent issuing body may be provided instead. These certificates are provided to generators of green electricity by a central issuing body and may then be sold (either with, or independently of the electricity), so buying such certificates is a way to "reward" and encourage the generation of green electricity.

Additionality

Although an ever-increasing demand for green electricity can only be good for encouraging further generation from renewable sources, there are even more effective ways in which procurers can encourage new renewable generation capacity to be built. "Additionality" implies a genuine increase in green electricity generation beyond what would be achieved anyway through the national support scheme in place (see table 1 above).

Some ecolabels include certain requirements to ensure this – excluding electricity which has already received a government subsidy, requiring a certain proportion of the supplier's profit to be reinvested in RES, or ensuring that a certain proportion comes from new plants (thus encouraging new plants to be built). EUGENE[7] is a European system for certifying green electricity labels, based on a strict definition of RES, and also ensuring the principle of additionality is covered by the label.

1.3. Cost implications

Price differences between conventional and green electricity depend on the status of liberalisation and the availability of green electricity plants. Green electricity is almost always a little more expensive, although the price premium is narrowing substantially, and in some cases it may even be available at a cheaper rate.

Increasing market liberalisation, together with the maturing of RES generation technologies, and higher fossil fuel prices will make green electricity ever more competitively priced.

A helpful approach in cost terms is to link the procurement of electricity with energy efficiency measures aimed at reducing electricity consumption needs. Electricity suppliers are increasingly offering such services (see Section 3.1), which can be requested within your electricity supply tender.

1.4. Relevant European legislation

The adoption of the single market Directive (Directive 2003/54/EC[8]) and the cross-border e-exchange Regulation (Regulation 1228/2003[9]) have considerably changed the European electricity market towards more competition, lowered administrative and technical barriers to trade, and consequently provided the opportunity to switch supplier.

[7] www.eugenestandard.org

[8] Directive 2003/54/EC concerning common rules for the internal market in electricity and repealing Directive 96/92/EC

[9] Regulation 1228/2003 on conditions for access to the network for cross-border exchanges in electricity

The driving force behind green electricity within the EU is the *Directive on the promotion of electricity produced from renewable energy in the internal electricity market* (Directive 2001/77/EC, hereafter referred to as the RES-E Directive) that urges each member state to meet national targets on renewable energy by 2010. Besides providing a (relatively basic) definition of renewable electricity, the RES-E Directive introduces the concept of Guarantees of Origin to prove compliance with the definition set.

2 Procura+ Key Criteria – Green electricity

The Procura+ criteria for green electricity cover a number of aspects:

- **Compliance with the EU definition of renewable energy sources (RES)** – as defined in *Directive*2001/77/EC.
- **Preference for non-hydro RES**– given the local environmental concerns relating to hydro schemes, and the quantity of existing large hydro plants, the Procura+ criteria encourage alternative RES.
- **Additionality** – to further encourage the construction of new RES capacity the Procura+ criteria require a certain portion of the delivered electricity to come from "new" plants.

Green electricity purchases

Subject matter: *Purchase of electricity with a certain percentage from renewable sources and new RES generating capacity, and with a preference for non-hydro RES*

Specifications:

a) *At least 50% of the supplied electricity must come from renewable energy sources (RES-E) as defined by EU Directive 2001/77/EC.*

Verification: *Guarantees of Origin must be provided by a credible independent third party that certifies the origin of the electricity, and that it has not already been sold elsewhere. Such Guarantees of Origin should be issued by competent bodies designated by the Member States according to EU Directive 2001/77/EC (art. 5).*

b) 30% of the electricity from renewable sources must be from "new" renewable plants. Plants will be so-defined if they came into operation less than 7 years before the publication of this tender. Alternatively, this condition is met, if the tenderer commits to bringing into operation a new RES-E plant within two years from the start of the contract period, leading to an overall capacity of 30% (RES-E from 'new' plants) of the supplied electricity

Verification: *The supplier must provide credible proof that this criterion is met*

Award phase:

The contract will be awarded to the tender applicant with the highest score of points, to be allocated according to the following scheme:

1. *Additional RES: 10 points (out of 100) –points awarded for electricity offered generated by eligible RES above the minimum requirement.*
2. *"New" RES plants: 5 points (out of 100) – points awarded for electricity generated by "new" RES plants above the minimum requirement.*
3. *Preference for non-hydro RES: 5 points (out of 100) – points awarded for the proportion of the RES supply coming from non-hydro sources*
4. *Other: 80 points (out of 100).*

Verification: *The supplier must provide credible proof that these criteria are met. For award criterion 1 Guarantees of Origin must be demonstrated through the means indicated in the specifications.*

Contract conditions:

The contracting authority reserves the right to carry out a random check to verify that the contract is being performed in accordance with the original offer.

Implementation notes

Specification a: The authority may of course choose to request more than 50% as a minimum. Where supply is not deemed sufficient to achieve 50% a lower target should be specified.

Specification a, verification: All EU countries are legally obliged to set up Guarantee of Origin schemes. In countries where this is not yet the case a temporary alternative would be for the supplier to provide independent verification that a corresponding quantity of electricity has been generated from so-defined renewable sources, e.g. a tradable certificate from an independent issuing body such as RECS

Specification b: If the supplier commits to bringing new plants into operation, this must be clearly included in the contract, and a suitable penalty must be incurred for non-compliance.

Award scheme: The exact point scheme used and the aspects considered will depend on the authority.

Contract conditions: If the contracting authority is suspicious that the criteria are not being met during the running of the contract, it may wish to employ an independent auditor to verify their claims.

3 Further ideas

3.1. Purchasing energy services

Electricity suppliers are increasingly offering consumers "energy services" alongside the purchase of electricity itself. Energy services means offering energy efficiency improvement measures or energy management advice.

The "Energy Services" Directive[10] 2006/32/EC, which will enter into force in 2008, requires electricity suppliers to either offer energy services, energy audits indicating potential savings, or a financial contribution to national energy efficiency schemes (depending on how the Directive is transcribed into national law), and so the availability of such services will likely increase.

These services can be demanded in the same tender as the purchase of green electricity (either in the specifications or the award phase), as long as this is mentioned clearly in the subject matter of the tender.

3.2. Encouraging small suppliers

Many green electricity suppliers and generators are small operations, and may not be able to meet the quantity demands of a large consumer. To allow such suppliers to participate in the bidding process, a good idea is to divide the tender into smaller parts, or "lots". A good example of this is provided by the Austrian Life Ministry (See case studies in attached CD-ROM).

[10] Directive 2006/32/EC on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC

3.3. Excluding nuclear energy

Some authorities may wish to exclude nuclear energy from the mix offered by suppliers. The easiest way to do this is to request 100% RES supply. Alternatively an authority may specifically exclude a supplier offering a proportion from nuclear power stations. This should be legally acceptable as long as this is specifically mentioned in the subject matter that nuclear energy is excluded, e.g. "*Purchase of electricity with 50% from renewable sources and excluding nuclear power.*" The legal position would be further strengthened if the authority has an explicit anti-nuclear policy.

3.4. Awareness raising activities

Energy efficiency improvements require the active involvement of the users of energy consuming equipment. If an authority wishes to contract energy services together with the purchase of electricity awareness raising activities/seminars for staff can also be included as a requirement. Again, this must be clearly mentioned in the subject matter of the tender.

3.5. Achieving political support

Given the likely small increase in cost associated with purchasing green electricity, having a political commitment can help greatly in pushing through implementation. This could, for example, be a policy aimed at climate protection, support of renewable energy, or specifically on the purchase of green electricity or sustainable procurement in general.