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ECO-LABELS IN HUNGARIAN PUBLIC PROCUREMENT

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Abstract

Green public procurement has become a very important part of the European economy. In Hungary besides the ministries mainly the municipalities may get the advantages of this purchase method. In this article some options will be presented how municipalities and other public authorities can use green public procurement in their daily practices. The importance of eco-labels in this field will be emphasized; finally the possibilities of eco-label based green purchase of the municipalities will be summarized and analysed.

Keywords: green public procurement, purchase, eco-label, Hungary.

1. Introduction

Public procurements made by public authorities rule a major part in the economy of the European Union (EU) spending some 16% of the EU's Gross Domestic Product ([1] p. 6.) and help to make clearer the public sector's procurements. In Hungary this percentage was 10–11% in 2000. Besides this, the other important aim is the sustainable development and protection of the environment in the EU. It is a useful and efficient possibility to achieve these goals if the public procurement is connected with the environmental factors. The frame of the article is illustrated in *Fig. 1*.

2. Green Public Procurements (GPP)

Before the analysis of the procurement situation, 'green public purchase' has to be defined: 'every decision, in connection with procurements, contract awarding that is made considering environmental criterions besides the price and quality'.

There are a lot of advantages of green public procurement. These are the following:

- Decreasing environmental impacts: use of environment-friendly products decreases these impacts. The more part of the life-cycle of the product is environment-friendly the more decrease can be achieved.

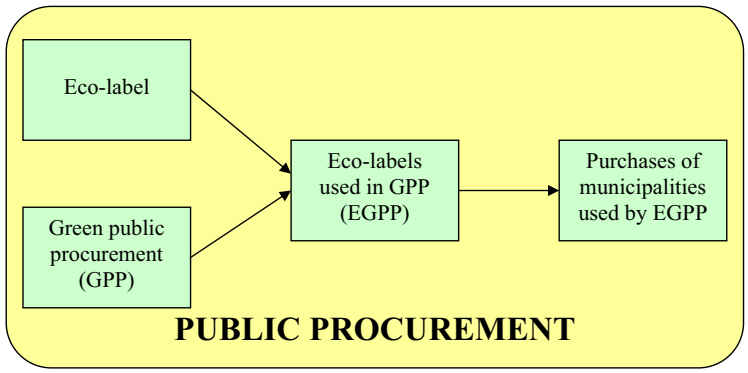

Fig. 1. The frame of the research and the article

- Good example for other sectors ('best practices'): if a municipality uses green purchase (with good result), it can suggest the others to use it. The best solution, if the municipality makes a guideline about the green procurement experiences and makes it available for others.
- Ethical point of view: use of this method means ethical background for the users, since they use the public money for environment-friendly products.

The examination of the legal background of green public purchase shows that there are lots of possibilities to use it. The general structure of public procurement is not different from that of the private ones. The preparatory part is very crucial, the subject matter, technical specifications and contractual parameters have to be defined. The procurements have two basic principles: getting the best value within the parameters and acting fairly. The 'acting fairly' element will be explained later; generally the public authorities should use them even if the prices of their purchasers are below the public procurement threshold.

The new Hungarian Public Procurement Law (PPL) came into force on the 1st of January 2005. All Hungarian organizations have the possibility to use the PPL, but the public authorities are obliged to use it: the contracting authorities are listed in clause 22 of the PPL; our opinion is that the municipalities are the most flexible authorities to change their purchases and use the green public procurement. Therefore mainly the possibilities of this sector were examined in our research.

The first and maybe the most important part of the PPL is the introduction part where the basic principles are defined. These are *equal treatment*, *fair competition* and *national treatment for EU bidders*. Equal treatment means: all competitors should have equal opportunities to make their bids and compete for the contract. ([1] p. 12.)

These basic elements must be taken into consideration when the public purchaser possibilities are determined by the municipalities. Without the consideration of these principles the procurement procedure or/and the contracts would be termi-

nated. No matter how useful and required the use of environmental parameters in the procedures is, the basic principles of public procurement must be kept. (See examples later.)

There are *5 options/sections* in the procurement procedures to use *environmental criteria*:

1. Exclusion criteria
2. Technical capacity criteria – qualitative selection criteria
3. Technical specifications
4. Award criteria
5. Contract clauses

1. Exclusion Criteria:

These obligatory criteria are listed in clause 60 of PPL, but there are no direct criteria concerning environmental aspects e.g. environmental pollution. The authorities may use point *c*, mentioned the final judgments concerning economic and professional activities to take into consideration the environmental aspects. The possible criteria used by the authorities are listed in clause 61 of point *e*. It is mentioned that the bidders can be excluded if they have no required permits to their services, e.g. environmental permits. It is the same opportunity the contracting authority has on the basis of public procurement Directives 2004/17/EC and 2004/18/EC: the companies can be excluded on the ground of grave professional misconduct in the field of environment ([1], p. 27.). These two Directives will be included in the new PPL probably in this year.

2. Technical/Professional (Economic) Capacity Criteria:

Clause 65 of PPL obliges the contracting authorities to set up the terms of technical, economic and professional capacity criteria to the bidders. There are different options for work, service and supply tenders. The possibilities of green procurements are the following in this field: a, references (works, products etc.) connecting to green standards b, environmental plan, environmental policy would be required from the bidders c, environmental management system – environmental management standards. In this latter option the clause 68 (4) of PLL notices, the authorities must refer to EMAS or an other European or international standard. The authorities *have to accept* any other equivalent standard or proof of environmental action. This point refers to the basic principle of equal treatment.

3. Technical Specifications:

This method is most typical for the Supply tender, where the contracting authority establishes different minimum compliance technical requirements, and the product of the bidder must fulfil these criteria. Offers not complying with the criteria have to be rejected. These criteria are useful besides the compliance since they determine the level of the competition ([1] p. 17.). The criteria have to be clear enough for the bidders. Equal treatment is very important: the contracting authorities are not allowed to determine criteria, which only one competitor can fulfil. The requirements must be linked to the subject of the contract. A clear example of unacceptable requirements: if you purchase a fax machine, you can not require using green energy in the fax machine factory.

In accordance with clause 88 of PPL the offer is invalid:

d if the bidder was excluded → Point 1
e in case of non-compliance with technical capacity criteria and technical specifications. → Point 2 and 3.

4. Award Criteria:

In the evaluation procedure the evaluation of the valid bids may continue after the examination of exclusion criteria and technical capacity criteria. The most common award criteria are the 'lowest price' and 'economically most advantageous tender' method. The contracting authorities who use the first option have to include the environmental criteria in the exclusion criteria and/or technical capacity criteria since in the award part of the evaluation they compare only the prices of bids, and the winner will be the cheapest offer. The other method gives more challenge for the 'green selection'. There may be a link between the requirements and the award criteria. Technical specifications define minimum requirements, but the contracting authority has the opportunity that all work/supply/service performing better than the minimum level can be granted extra points at the award stage. Therefore the use of the specifications can be allowed at both stages of the evaluation ([1] p. 31.). This method is not allowed in Hungary, because clause 57 of PPL says that the economic, technical and professional criteria, which were used in the examination of the suitability of the bids, cannot be used as award criteria.

On the ground of researches the award criteria must meet four important requirements (based on [1] p. 32–33.):

1. *Award criteria must have a link to the subject matter of the contract*: it is a basic expectation; the judges of the Court of Justice in EU give explanations about the meaning of this requirement.
2. *Award criteria must be specific and objectively quantifiable*: the contracting authority has the choice to define specific requirements (this is not against the fundamental principles of Community law for example free movement of

goods and services or equal treatment), but they must be clearly determined, and the above mentioned subject of matter must be taken into account.

3. *Award criteria must have been advertized previously*: the award criteria must be mentioned in the procurement notice or at least in the tender documentation and these are not allowed to change during evaluation of tenders.
4. *Award criteria must respect Community law*: The Court of Justice described the explanation of this – the basic principle is the non-discrimination; this is the basis of other principles, such as the freedom to provide services.

The following figure (*Fig. 2*) illustrates the possibilities of the contracting authorities to choose among the methods. The light grey colour shows the environmentally best solutions in our opinion.

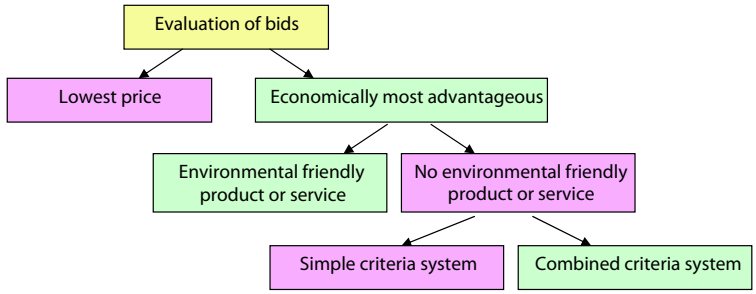

Fig. 2. The possibilities of contracting authorities between award criteria methods

It is very practical to use the earlier established criteria of environment-friendly products or services in the award procedure. The main aim of the article is to demonstrate possibilities of this method in Hungary. If we have no environment-friendly product or service, the criteria should be built up with scientific method. In case of simple criteria system we use only a few criteria (mainly the most important ones), for example energy efficiency, re-used materials. In case of combined criteria system we can use the Environmental Specification Sheets (ESS). ESS are based on such a point system which can be integrated into the evaluation system.

In general the preferred criteria might be selected from the environment-friendly product or service criteria system or indicated for measures or other criteria system (e.g. the limit value of Group for Energy Efficient Appliances) [3].

Scientific research pointed out that in case of several tenders, environmental criteria were taken into account only without measuring them quantitavely. Other typical mistake is if the procurement notice contains the criteria however they were not always found in the award decision [2]. There is a similar (but just opposite) failure, when the award criteria are not mentioned in the procurement notice but used later.

5. Contract Clauses:

The less common but existing practice is using environmental criteria in the contract clauses. The disadvantages of this method are that the criteria could not be used in the evaluation, therefore they must be well-specified. Some examples of possible contract performance clauses: a, environment-friendly transport of goods b, quality of service would be environment-friendly c, training of contractor staff d, disposal, packaging (re-used, re-cycled) – environment-friendly methods. ([1] p. 37.) The defined contract clauses would not be discriminatory.

3. Eco-Labels in General

Environment-friendly trade-marks are called eco-labels, environment-friendly product marks in practice. The eco-labels are marks on the products and the right of use can be awarded through competition. Environmentally favourable properties of products are certified by these eco-labels. The eco-labels are awarded during qualification procedure managed by national or regional organizations. Those products or services can be given the eco-label, which meet the criteria of the strict, pre-established qualification system.

The eco-label criteria are not formed from only one specification, but are based on the so-called life-cycle analysis ('cradle to grave'). That means the whole life (from the extraction of the raw materials in the pre-production stage through production and distribution until the disposal), whole environmental effect of a product or service is analysed, and only after the result of this complex, scientific examination and fulfilling the requirements the product or service can receive the eco-label.

The qualified products are in preferred distinction by the environmental friendly markers, because the better environmental properties of these products comparing to other products and services are emphasized by eco-labels. The labelling system is basically different from the standards which determine emission values. The most important difference is that the use of eco-labels is voluntary and these marks can be used only in the case of products and services possessing excellent characteristics. The International Standard Organization (ISO) classes the environmental marks and declarations into three different types based on the certifying procedures: Type I, II, and III. Three standards were elaborated by ISO using this type of labels and eco-labels are in Type I (ISO 14024:1999).

The best known multi-criteria eco-labels are in Europe: European Flower (EU eco-label), the Scandinavian label (the Nordic Swan) and national labels (for example Blue Angel – Germany, Das Österreichische Umweltzeichen – Austria). In Hungary the national eco-label illustrates a green tree; it is an unpedunculated oak tree. Single issue product labels relate to one, specific environmental object of the products, for example the energy efficiency. Such labels are the Energy Star label for office equipments (from the US) and the EU Energy label (A-G category).

4. Eco-Labels in Green Purchases (EGPP)

On the basis of chapter II of the article it could not be surprising to find a wide range of eco-labels that might be used in the green purchases. The information on eco-labels can be used in different ways (based on [1] p. 19.):

- To help to draw up the technical specifications in order to define the characteristic of services or supplies that are purchased
- Proof of evidence while checking compliance of the products or services offered by the bidders
- As a benchmark against which to assess offers at the award stage
- The different types of labels can be used in different ways – for example single-issue labels can be useful for a step-by-step approach.

The background of these possibilities: the most important thing is that it cannot be set up as a requirement for companies to possess a certain eco-label or to be fully compliant with one only. It cannot be declared for example that only Blue Angel labelled products will be purchased, because this method is against the equal treatment, which is one of the basic principles of public purchases. On the other hand, under the examination of fulfilling the established criteria (where technical specification from eco-label was used) the eco-label can be accepted as a proof of fulfilling criteria, since it is known that (environmental) properties of eco-label products or services are based on scientific information.

5. Possible Methods of Purchases Using EGPP in Hungary

The frame of the possibilities of contracting authorities means the PPL, the different eco-labels and other type of environmental friendly marks and the affordability of authorities to change their systems. The contracting authorities may make efforts in the field of *office equipments* in the easiest way. The PPL gives them the legal background, the positive international examples can show the wide range of possibilities and there is an external effect of the green purchases of municipalities on eco-labels. These authorities and the contractors would see the real, practical benefit of eco-labels using them in green public procurement.

There are several types of *office equipments* and some *services* where municipalities may use the different eco-labels. These options are summarized in *Table 1*.

The advantage of more existing eco-labels in connection with one product is double: 1. Contracting authorities can define easier technical requirements based on the eco-label criteria, 2. It is expected that more product will fulfil these criteria required by the tender. In our opinion the authorities may use the existing Hungarian eco-label criteria supporting the Hungarian products and companies that have these products. Otherwise this is not against the basic principle of public procurement, as they use only the criteria system and do not require products with Hungarian

Table 1. Eco-labels in the office

Type of eco-label / Type of office equipment	Hungarian Eco-label (unpeduncu-lated oak tree)	EU Eco-label (Flower)	German Eco-label (Blue Angel)	Austrian Eco-label (Das Österrei-chische Umwelt-zeichen)	Scandi-navian Eco-label (Nordic Swan)	Energy Star	GEFA	Other
Computer		+	+		+	+	+	
Monitor						+	+	
Printer			+		+	+	+	AENOR
Copier	**+**		**+**	**+**	**+**	**+**	**+**	
Copying paper	+	+		+				Milieu-keur
Fax machine			+		+	+	+	
Toner	+		+		+			
Scanner						+	+	
Refrigerator	+	+		+		+		
Boiler	+		+		+	+		
Air-condi-tioner						+		
Ventila-ting fan						+		
Furnace			+			+		
Light bulb		+			+	+	+	
Cleaning service	**+ (suspended)**				**+**			**Good Environ-mental Choice***

*: Swedish Society for Nature Conservation's eco-label

Source: Own collection from different homepages

eco-label. The popularity of eco-labels would increase with this method in the economic sector.

In the 'Technical specifications' part the eco-label criteria can be used as minimum requirements and in addition in the 'Award criteria' section plus points can be added for the special criteria. In the abovementioned first part mainly the single eco-label can be used, in the second part multi eco-labels would be useful. In the Hungarian procurement system the requirements used in the 'Technical specifications' part cannot be used in the award section as mentioned earlier in chapter 2 of the article. This important basic element must be taken into account during developing an evaluation method and making a tender dossier.

Eco-label criteria of one product and the service marked dark in *Table 1* were

analysed and formed two procurement notices (PN) with these requirements. Only those parts of the PN were developed, where the criteria appear.

Copier:

a. *Technical specifications:* The information and requirements were used forming the following table, which can be used to check whether the products of the bidder comply these requirements or not.

Table 2. Technical specifications of copiers

	Technical specification	Passed	Failed
Basic requirements	Copier Speed (copies per minute) $20 < \text{cpm} \leq 44$	(or YES)	
	Duplex mode		
Pollutant emission during utilization	Dust < 0.075 mg/m^3		
	Ozone < 0.02 mg/m^3		
	Styrene < 0.07 mg/m^3		
Toners	*No* substances containing compounds of mercury, lead or chromium VI		
	No azo colorants that can release carcinogenic aromatic amines		
	No the following '*R*' component (from 44/2000. (XII.27) EüM Regulation): R26, R27, R40, R42, R45, R46, R49, R60, R61, R62, R63, R64		
Packaging materials	No halogenated polymers		
Power consumption in case of standard size papers	Low-power mode: max. $3.85 \times \text{cpm}^{**} + 5$ W		
	Off mode: < 10 W		

* cpm = copy speed in copies per minute

Source: http://okocimke.kvvm.hu

These specifications are based on Hungarian eco-label criteria and naturally it can be extended, developed using the criteria of different eco-label systems. For example the power consumption criterion in *auto-off mode* is less strict in the Hungarian system than in case of GEEA Label. Therefore if the most important

factor for the contracting authority is the power consumption they can use the stricter GEEA Label criteria. On the other hand, concerning 'Low-Power Mode' and 'Off Mode Default Time' there are no differences between the eco-labels. (The Blue Angel and Nordic Swan eco-labels are in compliance with Energy Star standards). Actually in Hungary two RICOH copiers have the Hungarian eco-label and therefore they are compliant with these requirements. Of course several other types of copiers may have the required parameters.

Table 3. Technical specifications of copiers in connection with power consumption

Copier Speed (copies per minute) $20 < \text{cpm} \leq 44$	Low-Power Mode (watts)	Off Mode (watts)	Off Mode Default Time
Hungarian Eco-label	$\leq 3.85 \times \text{cpm} + 5$	≤ 10	≤ 60 min
Austrian Eco-label	$\leq 3.85 \times \text{cpm} + 5$	≤ 15	≤ 60 min
Blue Angel	$\leq 3.85 \times \text{cpm} + 5$	≤ 15	≤ 60 min
Nordic Swan	$\leq 3.85 \times \text{cpm} + 5$	≤ 15	≤ 60 min
Energy Star	$\leq 3.85 \times \text{cpm} + 5$	≤ 15	≤ 60 min
GEEA	$\leq 3.85 \times \text{cpm} + 5$	≤ 5	≤ 60 min

cpm = copies per minute

Source: Own collection from different homepages

In this section of the evaluation, one 'failed' answer leads to exclusion, since the decision of the Evaluation Committee cannot be else that such a tender is non-compliant with the requirements and should not be considered further.

b. *Award stage:* The contracting authorities have two possibilities at this stage. If they choose the lowest price option, no further green criteria can be taken into account. If they choose the economically most advantageous method, more environmental criteria can be used to select the best and hopefully the environmentally most favourable bid.
    1. *Tender price* – weight number (wn) of 6 (0–10 points, proportion of value)
    2. *Delivery time limit* – wn of 1.5 (0–10 points, linear measure between 1 week to 1 month, above 1 month all offers get 1 point, below 1 week all offers get 10 points)
    3. *Guarantee period* – wn of 1 (0–10 points, linear measure between 24 – 60 months, below 24 months all offers get 1 point, above 60 months all offers get 10 points)
    4. *Noise emissions during utilisation* – wn of 1 (0–10 points, linear measure between 66 - 100 dB (A)*, above 100 dB (A) all offers get 1 point, below 66 dB (A) all offers get 10 points)

5. *Availability of spare parts* – wn of 0.5 (0–10 points, linear measure between 2 – 5 years, below 2 years all offers get 1 point, above 5 years all offers get 10 points)

   * A = Weighting 'A' sound-pressure level – the measurement is based on EN 2779 standard

The last two parameters are related to eco-label criteria. Since the eco-label criterion for noise emission during utilization is below 66 dB (A) all products with eco-labels get the maximum point for this criterion. The availability of spare parts concerning Blue Angel is 5 years, in Nordic Swan system is 7 years, so both of them get the maximum 10 points. The final point can be obtained if the score is multiplied with the weight number, and the offer with highest final point will be the winner and will be awarded.

Cleaning Service:

Services represent a relatively new area among the eco-labels but for the municipalities it means a good chance to make a step towards the environment practice. The Hungarian criteria system is suspended recently therefore the Nordic Swan criteria were used in the developed evaluation method. In this system the applicants must calculate the number of square metres cleaned during the year and the following figures must be taken into consideration:

- Number or hours per person-year: 1700 hours
- Average performance: 175 sq. metres per hour.

a. Technical Capacity Criteria:

In this section the environmental management system can be required from the bidders referring to EMAS or other equivalent system as mentioned in chapter 2 of the article (PPL clause 68 (3)). The following capacities can be required from the companies: references from the last three years, personal information and requirements (cleaner worker, quality assurance expert etc.), existing of environmental pollution insurance.

b. Technical Requirements:

Table 4. Technical requirements of cleaning services

	Technical requirements	Passed	Failed
Required equipment capacity	'x' pieces of scrubbing and water-lifting machines		
	'y' pieces of carpet cleaning machines		
	'z' pieces of cleaning-service cars with bath		
Chemical consumption requirement	Chemical consumption less then 60 mg/m^2		
Content of the used chemicals	*No* subject to classification as environmental hazards (EU Directive 99/45/EEC)	(or YES)	
	No LAS		
	No EDTA and its salt		
	No optical whiteners		
Transport requirements*	Petrol and diesel consumption: $<$ 1 ml/m^2 *OR*		
	(Fuel efficiency) Petrol and diesel consumption: $<$ 8.91/100 km *OR*		
	Proportion of Euro-IV norm vehicles: 12 % $<$		

*If the bidder does not use any vehicles for use in cleaning services, this point is not applicable
Source: Nordic Swan "Ecolabelling of Cleaning Service" criteria document and published procurement notices

c. Award stage:

The offers which were compliant with the abovementioned criteria can be evaluated further in this section.

1. *Tender price* – weight number (wn) of 50 (0–10 points, proportion of value)
2. *Payment date in days* – wn of 30 (0–10 points, proportion of value, the minimum payment date is 30 days)
3. *Increase of the price/year* – wn of 10 (0–10 points, linear measure between 0–100% /increase of 0–100 % of the inflation/)

4. *Waste quantities* – wn of 10 (0–10 points, linear measure between 100–200 mg/m^2 bag consumptions*, above 200 mg/m^2 all offers get 1 point, below 100 all offers get 10 points.)

   * The calculation method is described in Nordic Swan 'Ecolabelling of Cleaning Service' criteria document.

Finally, the same calculation closes the award stage as in case of copiers: the final point can be obtained if the score is multiplied with the weight number, and the offer with highest final point will be the winner and will be awarded. All criteria from the Nordic Swan eco-label were used at the medium level as mentioned in the criteria document, because the fulfilling of these levels is required to be awarded the eco-label. (Minimum 12 points is needed to get from 4 different criteria). Consequently the eco-labelled services are suitable for the required cleaning service tender but other services may fulfil the criteria, too.

Too much and too strict requirements must not be defined, because it should not be restrictive on competition. On the other hand, using too much specification from eco-label criteria system can lead to fewer bidders, can restrict the competition. The requirements must be objective and numerable, the eco-labels can be approved as proof of fulfilling the requirements but the contracting authorities must accept other evidences as well.

Finally, it must be repeated that the Hungarian public procurement law (clause 57) does not allow the double-used criteria, in the section of the examination of capacities and in the award section.

6. Summary

This article showed a wide range of possibilities of green public procurement in general and for public authorities in Hungary. We do not think that all the possibilities were found and presented, but the article can serve as a basis for further researches. Green public procurement gives eco-labels an excellent chance for spreading, because the biggest problem of the eco-labels is that they are not widely known. Our opinion is that hereby environmental thinking and principles can appear in practical things for example in purchases. So the meaning of 'green' and 'environmentally friendly' can become more understandable in everyday life.

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