



**Upgrading of Energy Efficiency Public Procurement
for a balanced economic growth of SEE area**

ENERGY EFFICIENT PUBLIC PROCUREMENT EFFECT Guidelines – Common document

The report has been drafted by:



With the support of:



2



DAFNI
Network of Aegean
Sustainable Islands



REPUBLIKA SLOVENIJA
MINISTRSTVO ZA PRAVOSODJE

This document has been produced with the financial assistance of SEE programme. The document is the sole responsibility of EFFECT partnership and can under no circumstances be regarded as reflecting the position of the SEE Programme Authorities.

TABLE OF CONTENT

1. INTRODUCTION	p. 4	5.2. The Energy Efficient Public Procurement process	p. 16
2. EFFECT PROJECT: content, aims and results	p. 5	<i>5.2.1. Need identification</i>	<i>p. 16</i>
3. EUROPEAN TRENDS ON ENERGY EFFICIENCY PUBLIC PROCUREMENT	p. 8	<i>5.2.2. The project matter of the contract and title</i>	<i>p. 17</i>
3.1. Political context, conditions and targets	p. 8	<i>5.2.3. The economic benefit of EE procuring, using LCA and LCC</i>	<i>p. 17</i>
3.2. Energy Efficiency Plan	p. 8	<i>5.2.4. Bidding documents for a contract award</i>	<i>p.17</i>
3.3. The Directive on Energy Efficiency	p. 9	<i>5.2.5. Need description</i>	<i>p.18</i>
<i>3.3.1. An energy efficient Europe</i>	<i>p. 9</i>	<i>5.2.6. The award criteria</i>	<i>p.20</i>
<i>3.3.1.1 Basic steps</i>	<i>p. 9</i>	<i>5.2.7. The contract terms</i>	<i>p.20</i>
<i>3.3.1.2 European Treaty</i>	<i>p. 9</i>	<i>5.2.8. Bidders: minimum requirements and selection criteria</i>	<i>p.21</i>
<i>3.3.2 European legislation</i>	<i>p.9</i>	<i>5.2.9. Advertisement of the subject matter</i>	<i>p.22</i>
4. CONCEPT AND TERMS	p. 11	<i>5.2.10. Criteria Application</i>	<i>p.23</i>
5. GUIDELINES AND TIPS FOR AN EEPP TENDER	p. 14	<i>5.2.11. Terms for the execution of the contract</i>	<i>p.23</i>
5.1. Introduction	p. 14	<i>5.2.12. Contract management and reflection on performance for lessons learned purpose</i>	<i>p.23</i>
<i>5.1.1. Public procurement principles and EEPP</i>	<i>p. 14</i>	6. TEMPLATE FOR AN EEPP TENDER	p. 25
<i>5.1.2. Value for money and EEPP</i>	<i>p. 14</i>	7. ANNEXES	p. 28
<i>5.1.3. Economy, Efficiency and Effectiveness in EEPP</i>	<i>p. 15</i>		
<i>5.1.4. Lifecycle costing and Cost of Ownership</i>	<i>p.15</i>		

1. INTRODUCTION

The present document has been drafted on the basis of the National Guidelines on Energy Efficient Public Procurement prepared by the following project partners in the framework of EFFECT project: ARAEN (Abruzzo Regional Energy Agency) – Italy; SVIM (Sviluppo Marche Spa) – Italy; NORRIA (North Hungarian Regional Innovation Agency) – Hungary; EAO – Energy Agency of Upper Styria; ADR – Nord East Romania, Ministry of Justice supported by Josef Stefan Institut – Slovenia, DAFNI (Network of Sustainable Aegean Islands) with the support of NAR (Region of North Aegean) – Greece.

The aim of the common document is to give suggestions and tips to European public procurers, which have been not directly involved in the project activities, in order to align the EEPP in other countries than the EFFECT ones. The document, in line with the suggestions given by the European Directive on energy end-use efficiency and energy services¹, is the results of a process which leads to the publishing of *“guidelines on energy efficiency and energy saving as a possible assessment criterion in competitive tendering for public contract”* and by enabling the *“exchange of best practices on energy efficient public procurement practices”*.

The EFFECT process that led to the National Guidelines has been a core activity of the project, started by the definition of a set of transnational criteria on Energy Efficiency which has been further analyzed and adapted to the national and regional context through focus groups with local public procurers in order to draft a shared and useful tools at local level.

The document has been conceived as following: a first part will briefly describe the EFFECT project main aims, activities and results. A second part will be dedicated on the different meaning of public procurement containing environmental aspect, such as GPP, EEPP, Sustainable procurement, in order to fix the importance of EEPP in the EFFECT countries. The third part would like to provide readers with all necessary information to write a successful tender, containing EE criteria. In the final part a table is provided, with the aim to summarize all tips on how to write a good tender.

¹ Directive 2006/32/EC of the European Parliament of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC, O J L 114/64, 27.4.2006

2. EFFECT PROJECT: content, aims and results

The EFFECT project have been funded under the SEE Programme **Priority Axis 2** - Protection and improvement of the environment - and **Area of intervention 2.4** - Promote energy and resource efficiency, which aimed at supporting the adoption of renewable energy policies, resource efficiency (namely sustainable consumption and production) policies and technologies, reduction of greenhouse gas emissions and the movement to a recycling society. The project was aimed to promote the **adoption of transnational approach for the shaping of SEE energy efficient public procurement policies and procedures**. In particular, EFFECT intended to override SEE national constraints in the implementation of energy efficient public procurement procedures facilitating the coordination at transnational level and the achievement of EU energy and resources policies objectives in SEE project partners countries.

The partners are regional development and innovation agencies, energy agencies, research institutes, local authorities and chambers of commerce covering 8 SEE countries (Italy, Hungary, Slovenia, Bulgaria, Greece, Austria, Romania, Serbia) acting both nationally and regionally/locally, thus collaborating with different stakeholders - public and private – which guaranteed a comprehensive approach to energy efficiency public procurement process (EPPP).

EFFECT was designed with the purpose to achieve EU energy strategy's aims and meet the need for innovation and alignment of public procurement procedures in Southern East Europe (SEE) countries and stimulate their integration with energy efficiency criteria to meet EU Public Procurement requirements. It is namely well known that EU public procurement impacts for more than 16% on EU GDP, making it an important tool for public authorities to implement national energy efficiency policies, by promoting the production and the consumption of energy efficient products and services. This means using the opportunity created by the state to orientate the use of this money on products and services aimed at the production of renewable energy and energy saving, improving competitiveness and promoting a balanced and sustainable economic growth in involved Countries.

More in detail, EFFECT aimed to:

- investigate the SEE region public procurement procedures, in order to map the level of energy efficiency mechanisms adoption in SEE region public tenders and to find out the main barriers faced by private sectors in the participation to EE public tenders;
- to enhance the role of public authorities, at all levels, in the diffusion of energy efficient behaviours in private sector, paving the way for transnational strategies in EPPP, achieving EU energy objectives;
- to increase the awareness of regional/local authorities and professional organizations representatives on the importance of EPPP and upgrade their competences on the preparation/participation to energy efficient public tenders;

- to contribute to the re-orientation of suppliers towards the production of energy efficient services and products, through the removal of barriers which prevent enterprises from participation to public tenders requiring energy efficient measures/procedures, thus creating new business opportunities for the economic sector;
- to upgrade the competences of private sector, increasing their awareness on the economic benefits deriving from a smart use of energy, thus fostering the creation of new enterprises and jobs in energy

It is worth mentioning that all the territories involved in the project register structural weaknesses due to difficulties in producing energy from renewable sources and spread the concept of rational use of energy. This is due to:

- unfavourable legislative conditions;
- institutional hurdles and low skills;
- available information unevenly.
- low awareness, which causes a lack of perception, demand and acceptance.

Additionally, this particular geographic area is characterized by:

- increased energy demand, due to the growth and industrialization, especially in the new Member States;
- different stages of development existing between the old Member States, the new Member States and candidate countries;
- national energy markets with different rules;
- partner territories are characterized by an inefficient management of energy;
- market conditions do not allow the formation of a critical mass of suppliers.

All these premises prevent both sustainable growth in the SEE and creation of a balanced energy market, able to attract and facilitate the implementation of investments in energy efficiency and renewable energy.

In order to achieve the project objectives, the work packages have been set on the following topics:

Analysis on the status of implementation of energy efficiency criteria in public procurement procedures in the SEE region. This analysis aimed to:

- develop a catalogue of legal provisions and procedures used by SEE countries for EEPP;
- carry on a transnational analysis on the application of energy efficient products and services;
- carry on a supply analysis on energy efficiency products and services in order to identify barriers faced by private sector participation in such procurement procedures.

The results of the analysis has been be used for modernization and qualifications of public sector (demand) and the private sector (offer) for the development and participation to EEPP procedures through training and local focus groups.

Organization of a transnational training session in Ljubljana and or regional sessions for public authorities in order to qualify the skills in developing procedures EEPP. Drafting EEPP guidelines in each country following the local focus groups with the participation of local/regional/national stakeholders .

Organize training of private sector representatives aiming to:

- qualify the capability to participate in tendering procedures involving EEPP;
- removal of the barriers identified during the survey phase;
- provide a guidance to energy efficient products and services.

Identification of common qualification and selection of criteria for the SEE area aiming to uniform requirements for integrating energy efficiency into public procurement procedures. These will be adapted and integrated by each SEE country into national regulations by defining and signing a Memorandum of Understanding with the local authorities.

Upgrading Demand and Supply side SEE area public procurement procedures and from the integration of the EEPP Guidelines in the national/regional/local framework of countries involved, some partners have concretely drafted and launched a public tender including the EEPP guidelines adopted. On the supply side, partners directly working with private sector representatives set up an Informational program and awareness campaign to communicate and disseminate, among the local stakeholders the economic, environmental and energy benefits of the re-orientation of production process taking in consideration energy efficient criteria.

3. EUROPEAN TRENDS ON ENERGY EFFICIENCY PUBLIC PROCUREMENT

3.1 Political context, conditions and targets

The climate-energy package is a set of legal instruments aiming to ensure the fulfillment of the EU's ambitious objectives for 2020. These objectives, known also as "20-20-20 targets", are in particular:

- 20% reduction in EU greenhouse gas emissions from 1990 levels.
- Increase of the share of energy produced from renewable resources to 20%.
- 20% improvement of the EU's energy efficiency.

The targets were set in 2007 by European leaders, who committed themselves to transforming Europe into a highly energy-efficient, "low carbon" economy and were activated through the aforesaid climate and energy package in 2009. The EU also intends to intensify its emissions reduction to 30% by 2020, on condition that other major economies of the developed and developing world commit themselves to undertaking their fair share within a global effort to reduce emissions.

The 20-20-20 targets represent an integrated approach to climate and energy policy, in order to address climate change, increase the EU's energy security and enhance its competitiveness. Moreover they constitute the central objective of the European 2020 Strategy for smart and sustainable development. This reflects the acknowledgement that the struggle against climate change and energy challenge contributes to the creation of jobs, the generation of "green" growth and to the reinforcement of Europe's competitiveness. The achievement of the 20% renewable energy target is estimated to result in a net effect of approximately 417000 additional jobs, whereas efforts to improve energy efficiency by 20% in 2020 shall give rise to a net employment increase by 400000 jobs (European Commission, 2010).

3.2 Energy Efficiency Plan

Energy saving is considered a key component for the European energy policy and one of the cornerstones of the EU 2020 strategy. The plan proposed includes various guidelines for the transition to a more effective economy in terms of energy sources use. The 2011 Energy Efficiency Plan is part of the European objective for the 20% improvement of energy efficiency and of the 2020 Energy Strategy and aims to:

- Promote an economy that shall respect the planet's natural resources.
- Develop a low carbon dioxide emission system.
- Improve the energy independency of the European Union.
- Strengthen the security of energy supply.

To meet the objectives described above, the European Commission proposes actions at different levels:

- To promote low energy consumption in the construction sector.
- To develop a competitive European industry.
- To adjust national and European funding.
- To reduce expenses for consumers.
- To improve transport effectiveness.

- To extend the scope of the national framework.

3.3 The Directive on Energy Efficiency

On October 25, 2012 the EU adopted the 2012/27/EU Directive on Energy Efficiency. The Directive establishes a set of measures aiming at promoting energy efficiency within the Union, in order to ensure that the essential 20% target on energy efficiency for 2020 is met and pave the way for further improvement after that year. It sets rules defined to remove barriers in energy market and overcome potential failures that hinder the effectiveness with regard to the supply and use of energy, as well as to contribute to the consolidation of indicative national efficiency targets for 2020 (European Commission, 2010).

3.3.1 *Achievement of an energy efficient Europe*

3.3.1.1 Basic steps

The basic steps set by the EU to achieve an energy efficient Europe are:

- Action 1: Utilisation of the energy saving potential in buildings and transport.
- Action 2: Improvement of industrial competitiveness, rendering industry more efficient.
- Action 3: Enhancement of the energy supply.
- Action 4: Creation of National Energy Efficiency Action Plans.

3.3.1.2 European Treaty

The most significant relevant principles enshrined in the European Treaty are the following:

- Free movement of goods
- Free competition – removal of restrictions on participation.
- Fair competition – equal terms for all participants.
- Blind competition – no relations among participants.
- Principle of free supply of services.
- Anti-fragmentation principle.
- Principle of equal treatment.
- Principle of proportionality.
- Principle of transparency.

3.3.2 *European legislation*

The essential European legislation for Energy Efficient Public Procurement includes the Directives provided below:

- Directives on Public Procurement (2004/18/EC and 2004/17/EC).

- Directive 2006/32/EC on energy end-use efficiency and energy services and repealing Council Directive 93/76/EC, recently replaced by Directive 012/27/EU on energy efficiency.
- Regulation (EC) No 106/2008 of the European Parliament and of the Council of 15 January 2008 on a Community energy-efficiency labelling programme for office equipment (Energy Star) (Updates with Regulations 2009/789/EC, 2009/489/EC, 2009/347/EC).
- Directive 2009/33/EC on the promotion of clean and energy-efficient road transport vehicles.
- Directive 2009/125/EC establishing a framework for the setting of eco-design requirements for energy-related products.
- Regulation (EC) No 1222/2009 on the labelling of tyres with respect to fuel efficiency and other essential parameters (Updates with Regulations 2011/228/EC, 2011/1235/EC).
- Directive 2010/30/EU on the indication by labelling and standard product information of the consumption of energy and other resources by energy-related products.
- Directive 2010/31/EU on energy efficiency of buildings.

Moreover, on 22 January 2014 [COM(2014) 15 final - A **policy framework for climate and energy in the period from 2020 to 2030**] the Commission also proposed energy and climate objectives to be met by 2030.

The objectives send a strong signal to the market, encouraging private investment in new pipelines and electricity networks or low-carbon technologies.

A reduction in greenhouse gas (GHG) emissions by 40% below the 1990 level, an EU-wide binding target for renewable energy of at least 27%, renewed ambitions for energy efficiency policies, a new governance system and a set of new indicators to ensure a competitive and secure energy system. These are the pillars of the new EU framework on climate and energy for 2030 presented by the European Commission.

4. CONCEPT AND TERMS

Expressions such as „Green (public) Procurement“, „Sustainable Development“, „Sustainable (public) Procurement“, „Energy Efficient Public Procurement“ are increasingly common in established development strategies at European, national or local level and central authorities in the Member States of the European Union.

In order to understand the concept of Energy Efficient Public Procurement (EEPP), one should familiarize oneself with its relation to other Public Procurement Policies. EEPP especially needs to be distinguished from Green Public Procurement (GPP) and Sustainable Public Procurement (SPP).

A. Green Public Procurement

"GPP" is defined as "a process whereby public authorities seek to procure goods, services and works with a reduced environmental impact throughout their life, compared to goods, services and works with the same base function that would have been otherwise purchased in the classical procurement system".²

The policy of Green Procurement takes into account a variety of environmental costs and benefits when performing procurement procedures, expressed as requirements and criteria included in the bidding documents. This includes factors such as ratio of recycled content, reduced toxic content and also the criterion of Energy Efficiency.

B. Sustainable Public Procurement

"Sustainable procurement is a process whereby organization meets their needs for goods, services, works and utilities in a way that achieves value for money on a whole life basis in terms of generating benefits not only to the organization, but also to society and the economy, whilst minimizing damage to the environment".³

The concept of Sustainable Public Procurement typically adopts an even broader approach than Green Procurement and focuses on environmental as well as social aspects to complement the conventional considerations of economics.⁴

Sustainable Public Procurement (SPP) means that public authorities seek to achieve the appropriate balance between the three pillars of sustainable development - economic, social and environmental - when procuring goods, services or works.⁵

Briefly:

- Green Public Procurement (GPP) concerns only the environmental impacts of procurement.

² European Commission Communication no. 400 of 16th July 2008, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Public Procurement for a Better Environment, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0400:FIN:EN:PDF>

³ This definition has been adopted by the Swiss-led Marrakech Task Force on Sustainable Public Procurement in Procuring the Future. http://www.unep.fr/scp/procurement/docsres/ProjectInfo/MTF_Flyer_A4_Ansicht.pdf

⁴ Communication from Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions - Public Procurement for a Better Environment, Brussels, 2008, p.2;

⁵ http://ec.europa.eu/environment/gpp/versus_en.htm

- Sustainable Public Procurement (SPP) also addresses social and economic considerations, beside environmental impacts of procurement.

Based on the approaches used at national levels by Member States, GPP and SPP are often seen as voluntary instruments, which mean that the contracting authorities can determine the extent to which they implement them.

C. Energy Efficient Public Procurement⁶

"Energy efficient public procurement" (EPP) can be defined as the integration of energy efficiency improvement considerations into investments, maintenance and other expenditure on energy-using equipment and energy services.

It applies to the design, construction and management and if appropriate demolition/ disposal of buildings, the procurement of energy consuming equipment, such as heating systems, vehicles and electrical equipments, and also to the direct purchase of energy, e.g. electricity.

It includes practices such as life-cycle costing, the setting of minimum energy-efficiency standards, the use of energy efficient criteria in the tendering process, and measures to promote energy efficiency across organizations.

Energy-efficient procurement offers significant opportunities and social, economic and environmental benefits for public authorities and the society as a whole:

- By using less energy, public authorities will not only save energy and contribute to the achievement of the energy savings target, but also reduce unnecessary costs, and save money;
- Reducing CO₂ emissions as a result of energy-efficient procurement will help public authorities to lower their carbon footprint;
- Some energy-efficient goods, such as light bulbs, have a longer lifetime and are of higher quality than their cheaper alternatives; purchasing them will save time and efforts involved in frequently replacing equipment;
- Through leading by example, public authorities help to convince the general public and private businesses of the importance of energy efficiency.⁷

⁶ Energy Efficiency in Public Procurement – Member States experience, barriers/drivers and recommendation European Commission – report prepared by the Joint Research Center of the European Commission - http://ec.europa.eu/energy/efficiency/studies/doc/2010_05_jrc_ee_public_procurement.pdf

⁷ European Union (2010): How to develop a Sustainable Energy Action Plan (SEAP) – Guidebook developed in the framework of Covenant of Mayors

Some examples for the integration of energy efficiency improvement considerations into public procurement procedures:⁸

Sectors	Examples of public procurement requirements
Public transport	<ul style="list-style-type: none"> · Purchase low-emission buses and public fleet vehicles; · The buses have to be equipped with driving-style meters to monitor fuel usage
Electricity	<ul style="list-style-type: none"> · Increase the share of electricity from renewable sources going beyond national support schemes; · This measure can be completed by including the purchase of energy-efficiency services, e.g. ESCOs
IT products	<ul style="list-style-type: none"> · Purchase of environmentally friendly IT goods that meet the highest EU energy standards for energy performance; · Provide training to users on how to save energy using their IT devices
Building construction/ renovation	<ul style="list-style-type: none"> · Use of localized renewable energy sources; · Impose higher than currently required efficiency standards that reduce the building's energy consumption, prescribe the passive house standard etc.

⁸ European Union (2010): How to develop a Sustainable Energy Action Plan (SEAP) – Guidebook developed in the framework of Covenant of Mayors

5. GUIDELINES AND TIPS FOR AN EEP TENDER

5.1 Introduction

5.1.1 Public procurement principles and EEP

The basic principles in dealing with EEP are specified in Article 2 of the Directive 2004/18/EC, as follow: the principles of equal treatment, non-discrimination and transparency, together with the principles of proportionality, mutual recognition and efficient use of funds.

The same legislation governing public procurement explicitly sets the following obligations for contracting authorities:

- follow the public procurement principles
- ensuring the confidentiality of the information
- ensuring the transparency in contracts awarding
- take all necessary measures in order to avoid conflict of interest and unfair competition
- the application of proportionality principle when establishing the qualification and selection criteria, and the level of the minimum requirements which the tenderers/candidates must fulfil
- accept documents from the country of origin or where the tenderer is based on.

While performing EEP the contracting authorities must understand and manage the application of public procurement principles. The understanding and application of the principles must be aligned with the interpretation provided by the Court of Justice of the European Union.

5.1.2 Value for money and EEP

Value for money is the core element underpinning procurements all over the world and therefore „value for money” in obtaining the goods, works and services required for the activity of the contracting authority should be an important and an essential test against which contracting authorities should justify a procurement result.

Thus, when speaking about EEP, the main objective of each contracting authority should be to achieve „value for money” which means:

A. To acquire the goods, works or services needed, on the best available terms.

In practice, while applying the value for money, the following should be considered:

- i. The goods, works or services to be procured respond to a specific need of the contracting authority and are suitable for the fulfilment of that need;
- ii. The specifications used to describe the requirements are clear and complete and – where the case may be - are followed by a form of technical proposal, which allows for input from the potential contractors;
- iii. The contract itself is concluded on the best available terms. This does not mean to be awarded to the bidder offering the lowest price but to the bidder offering the lowest total life cycle cost, making a trade-off between the price and other features of the goods, works or services to be procured. The contract best available terms must be prepared in the initial procurement phase and must be communicated to the market as such;
- iv. The bidder who presented the winning offer is able to provide what is required under the published terms. This exercise should be seen by the contracting authority as a risk

- management measure (preventive measure) for avoiding or diminishing the effects of the contractor's failure to perform.
- v. The procedural rules for choosing the contractor are clear, and their application is open to verification via remedies.

B. The optimum combination of whole life costs and quality is sought, instead of the lowest initial price.

This requires comparative analysis of all relevant costs and benefits throughout the whole procurement cycle (whole life costing). It is not about achieving the lower initial cost but getting optimum combination of whole life cost and quality.

Applying the value for money concept means, in practice, devoting attention throughout the entire procurement process. In practice, applying the value for money concept means that all (public) procurement exercises, for goods, services and works, must deliver at least the right goods, services, and/or works, of the right quality, in the right quantity, at the right time, at the right price and delivered to the right place (known in the procurement literature as „purchasing factors” or „key purchasing variables”)

5.1.3 Economy, Efficiency and Effectiveness in EEPP

Each contracting authority must be aware of its responsibility when dealing with public assets in a public procurement procedure. For the EEPP exercises, the economy, efficiency and effectiveness must be applied and therefore, the contracting authority must carry out public procurement in order to guarantee economic and efficient use of the public assets and to successfully attain the goals of its existence, as it was determined in line with the regulations covering the usage of budget assets and of other public assets.

Therefore:

1. Efficiency means that the contracting authority is “doing things right”, namely ensuring that a procurement procedure itself is conducted in a timely and cost effective manner. This aspect must be considered and the cost of the procurement procedures must be balanced against the benefits to be obtained.
2. Effectiveness relates to the organization “doing the right thing”.
3. Economy means minimizing the cost of resources for an activity.

5.1.4 Beyond price: Lifecycle costing and Cost of Ownership

There is a difference between the transaction/purchase price of an item and its total cost of ownership. The total cost of ownership includes the price of the items being purchased, but also other costs such as:

Acquisition costs	costs of delivery, installation and commissioning
Operating costs	such as energy consumption, spares, other consumables, maintenance and repair over the useful life of the item (as the case for equipment and machinery), staff training, supplier support
Costs of storage and other handling	assembly or finishing required by the nature and function of the item
Costs related to the quality	inspection, rejection, etc

End of life costs	such as decommissioning, removal and disposal (sometimes, 'negative costs' are deducted from these costs, if the item has sufficient residual value for resale)
--------------------------	---

For performing EEPP it is relevant to understand that a purchased item is expected to be used for a number of years, and during this period, it will generate certain costs for the contracting authority (in addition to the price paid for the item and to the cost incurred at the contracting authority level with the procurement exercise itself). Thus, while making a decision for procuring an item or another, consideration should be given to the costs generated by the item over the whole useful life of the item. In order to reflect the above situation, the lifecycle costing (whole life costing - WLC) concept is used. In the context of EEPP, **the use of LCC is essential to demonstrate that procurement processes and decisions move beyond considering only the purchase price of an item.**

It is the aim of EEPP to reflect the financial and non-financial gains that are offered by energy efficiency public procurement, as they accrue during the operations and/or use phases of an item life cycle. In addition, purchasing prices rarely incorporate the environmental externalities (such as greenhouse gas emissions, pollution) that may be associated with the production, distribution and end-of-life disposal of products.

While considering LCC analyses as part of the public procurement exercise, these analyses should consider at least the following information:

- Purchasing costs and all associated costs, such as delivery, installation, commissioning;
- Longevity and warranty time frames of the item;
- Operating costs, including utility costs such as energy, maintenance and repair costs;
- End-of-life costs, such as removal, recycling or refurbishment, and decommissioning.

5.2 The Energy Efficient Public Procurement process

Energy efficiency objectives can be fulfilled if procurement is used as a tool for implementing the objectives. Thus, for contracting authorities it is essential to know how to make the most of public procurement procedures and to understand practical issues such as which procedure to use, how to use the procedures, what requirements to specify, what criteria to apply and how to properly evaluate the received offers.

At each contracting authority level, the energy efficient procurement processes must be designed to allow:

- i. input from all stakeholders categories (internal, connected and external)
- ii. obtaining best value at the lowest possible cost using a fair, equitable, and transparent (easy for the public to see and understand) contract award procedure while ensuring that appropriate verification methods (including supporting documents) are available for all the requirements and criteria used during the procurement process.

This chapter does not address the entire EEPP process, but highlight some of the activities relevant in relation to an end result, which demonstrates the feature of being “energy efficient”.

5.2.1 *Need identification: connecting the strategy, objectives and subject matter of the contract at the contracting authority level*

It is imperative for obtaining an efficient outcome for an EEPP that the content of procurement activities is aligned with the strategy and the objectives of the contracting authority itself.

Considering the proportionality principle, the procurement process should begin with the selection of the product category, which „deserves” to be considered as subject of efficient energy procurement exercise. Below are presented several examples of consideration which might help in decision-making process:

- i. The magnitude of the impact of the energy consumption of the product/item during its life cycle, mainly in the operation phase
- ii. The magnitude of the need of the contracting authority
- iii. The possibility to use procurement as an effective tool to achieve „value for money”
- iv. The legal provisions in place directly linked to the product category (sectorial legislation, governing the subject matter of the contract). This decision should be made by the internal stakeholders, at the contracting authority level.

5.2.2 *The project matter of the contract and associated contract title*

The „subject matter” of a contract is a description of what item (product, service or work) the contracting authority intends to procure. The subject matter of the contract or the contract title is at the heart of the advertisement of an energy efficient procurement since explains what is to be procured but also the main feature of energy efficiency expected in relation to what is to be procured.

5.2.3 *The economic benefit of EE procuring, using information obtained from LCA and LCC*

A leitmotif in relation to procurement exercises, which includes energy efficiency dimension, is that energy efficiency items (goods, works or services) cost more. There might be situations when the energy efficiency subject matter of a contract should have a calculated estimated value higher than the standard alternative. More specific the „transaction price – namely the price to be paid in the purchase phase – should be considered higher since is supposed to incorporate new technologies, innovation – this would be mainly the case of energy efficiency works. However, we have to recall that for the contracting authority the real cost is higher than simply the purchase price. Thus, when deciding which alternative from the existing products and services on the market is the cheapest one, the costs throughout the item’s life-cycle must be considered i.e. the costs of purchasing, operating and maintaining, and disposing of the item.

5.2.4 *Bidding documents/documentation associated to contract award*

Once the contracting authority has established that the contract to be awarded falls within the scope of the public procurement legislation and has selected which procedure to use, it must prepare the necessary bidding documents (contract documentation).

Appropriate bidding documents are pre-requisite for successful realization of an energy efficient public procurement procedure and represent the major instrument in the evaluation of the contracting authority’s economy-related behavior. Formulating criteria is the decisive moment in the realization of expectations in terms of the best offer. The bidding documents must be designed to provide clear and detailed information on the following:

- **scope of the contract to be awarded, described in terms of requirements/specifications** – outlining, for example, in terms of purpose the objectives of the contract, the energy efficiency requirements, information on the environment within which it shall be implemented, deliverables and delivery times

- **terms of cooperation for implementation of the contract, consisting in the identification of the specific contract provisions** (such as value, time, delivery and payment method, performance indicators in terms of energy efficiency of the subject matter and in terms of contract management, acceptance procedure) and general contract provisions (guarantees, subcontracting, obligations of the contracting parties, contract termination etc.) to be entered into at the end of the procedure
- **rules and regulations to be applied during the procurement procedure**, which, subject of the chosen procurement procedure refers to selection and award criteria, contents of bids, evaluation of received information as well as all the formal rules to be followed during the procedure.

What makes the difference in a „classic“ public procurement process of an energy efficient public procurement refers actually to the requirements and criteria designed and used in various stages of procurement process.

Content wise, the specific elements that can be used to generate the energy efficient public procurement exercise can be grouped in four distinct categories, each of them corresponding to a specific part of the bidding documents:

Information in the Bidding Documents	Specific elements of an EEPP
Requirements/Specifications	Mandatory product/services or works requirements (minimum standards which the product/service must meet) and (associated) desired requirements designed to reflect energy efficiency parameters.
Contract	Specific contract terms designed to secure the fact that the delivery of the product or the performance of the services/works meets the agreed requirements and secure the proposed energy efficiency features
Award criteria	Evaluation factors which will results in advantages granted to the bidders submitting technical proposals which demonstrate fulfillment of the desired requirements, resulting in benefits for the contracting authority.
Qualification requirements for the potential bidders	Technical and professional capabilities which will secure the selection of a supplier with capabilities and abilities in dealing with energy efficiency

5.2.5 *Need description/preparation of specification*

In addition to life-cycle cost effectiveness, the following issues should be considered by the contracting authority:

- The requirements/specifications must refer to minimum and desired requirements which are preferably known on the market;

- the existence of more than one economic operator (generally a minimum of 3 economic operators) which should be able to meet the efficiency requirements with currently available models identified by the contracting authority on the market;
- the existence of multiple sources for the technology used in the manufacturing process or product to meet the requirement (cannot be proprietary).

The next step is to establish a detailed description of the requirement – which can be communicated to the potential bidders – as part of the Bidding Documents.

In (public) procurement the requirements are the most important part since provides a description of:

- what the contracting authority requires;
- what the Contractor (successful Bidder) is expected to bid for and, if successful, deliver.

The main features of specifications to be used in EEPP can be summarized as such:

A. Must contain:

- minimum/mandatory requirements
- desired requirements – in extension to the already defined minimum requirements.
Desired requirements are relevant when „most economically advantageous tender” is used as award criterion.

B. Must clearly specify:

- the test methods to be used to verify compliance with the requirement (both minimum and desired)
- the manner in which acceptance will be performed.

C. Must allow for maximum competition

D. Can be of any of the above type:

i. **conformance specification** – known also as technical specifications; the contracting authority details exactly what the required product (part or material) or works must consist of, without necessarily communicating to the potential bidders in details or even at all, what function the product or works results will serve. With such kind of requirements the contractor’s task is understood to be simply the conformance to the description provided by the contracting authority. For the context of EEPP, there might be circumstances in which the technical specifications are the most appropriate, and this is the case of design specifications (engineering drawings) in case of a works contract or even „off-the-shelf” for indoor lighting (such as electric bulbs).

ii. **performance specification** – known also as functional specifications; the contracting authority describes what is expected a product to be able to achieve in terms of function it will perform and the level of performance it should reach. It is the proposal of the bidder the product, which will satisfy these requirements. A performance specification defines the functionality, performance, outcomes or outputs to be achieved and details of key inputs parameters (electricity, water, etc. – as the case might be), the operating environment and conditions in which it will operate, the interfaces with other functions/processes, the expected level of quality, safety, environment

performance and control of the expected level (including reference to any relevant standards), methods used to measure whether or not the desired performance have been achieved.

For the context of EEPP, circumstances in which the performance specifications are the most appropriate might include (but are not limited to) situations such as engineering (design), procurement and construction of buildings or outdoor lighting systems. **However, requirements associated to EEPP should be performance based to stimulate competition and innovation.**

E. May use criteria specified for ecological labels:

Contracting authorities can use for preparing specifications criteria that are defined in ecolabels, such as the European Eco-label, (multi-)national eco-labels or any other eco-label providing the requirements for the label are drawn up and adopted on the basis of scientific information using a procedure in which stakeholders, such as government bodies, consumers, manufacturers, distributors and environmental organizations can participate, and providing the label is accessible and available to all interested parties.

5.2.6 Establishing the award criteria

Currently, there are two award criteria specified in the legislation:

- Lowest price
- Most economically advantageous tender.

Establishing the award criterion as lowest price will be interpreted in the bid's evaluation phase as deciding the winning offer among the offers which demonstrates the fulfillment of the minimum requirements communicated in the Requirements/Specifications.

In such a case a procurement exercise can be defined as being energy efficiency only if the minimum requirements communicated includes energy efficiency requirements.

Considering life-cycle costs in energy efficiency public procurement makes clear economic sense. EEPP means actually using **most economically advantageous tender (MEAT)** as a criterion for contract award. The evaluation factors included in the MEAT criterion, depending on the particular case, may refer to price, quality, aesthetic and functional features, efficiency, delivery time, after-sales service, technical assistance, environmental performance, Lifecycle cost, etc.

5.2.7 Establishing the contract terms

When dealing with EEPP, the contracting authorities should use the contract provisions to include energy efficiency considerations. These provisions must be linked to requirements, which describe the subject matter of the contract and to the award criterion – in case MEAT used.

The contract (and the incorporated requirements, together with the received technical and financial proposals) represents the „core“ of a procurement exercise. However, compliance with the contractual provision will not be subject of the evaluation during the procurement exercise, but subject to monitoring during the contract performance. For the evaluation purposes, the contracting authority may specify that economic operators will be excluded from further participation in the procedure if they do not accept the contractual provisions as presented in the bidding documents.

In the context described in the paragraph above, for consistency reasons and for a complete and clear message to the market on the intention and commitment of the contracting authority for

energy efficiency procurement, the contractual provisions need to be set out explicitly in the bidding documents and clearly related to the performance of the contract.

The contract provisions must include also the specific commitments which have been made as part of the procurement exercise by enforcing compliance with the energy efficiency performance levels claimed by the potential Contractor in the offer, but may not result in discrimination in favor of contractors from the local contractors.

5.2.8 *Establishing the minimum requirements and selection criteria for the bidders*

The legislation lays down rules for the 'qualification' and for the selection of economic operators in a form of an exhaustive list of means of evidence, which can be required by the contracting authority to check the technical, financial and organizational capacity of economic operators to perform a contract.

The criteria must be stated in the published contract notice and in the Bidding Documents and should include, in respect of each criterion, the following information:

- i. definition of the minimum requirements or capability levels to be set for each criterion
- ii. specification of the data, documents and other information to be requested from economic operators to document the fulfillment of the requirements.

The selection criteria must be differentiated of the award criterion. In this respect, a contracting authority cannot take account of an economic operator's experience, capability or ability to perform the contract by an anticipated deadline as part of the award criterion.

As „qualification and selection requirements”, the following can be used.

A. Exclusion criteria from the taking part in a public contract

Two of the criteria may assume an energy/environmental dimension:

- in case of conviction for offences concerning the professional conduct
- in case of grave professional misconduct

B. Economic and financial standing

The use of economic and financial standing criteria is considered necessary in most cases, as it protects the Contracting Authority from awarding contracts to economic operators whose volume of activities does not correspond to the size of the contract to be awarded and / or whose financial data do not guarantee the successful contract performance.

Such requirements may not be necessary in cases of contracts for a low budget contact or for common supplies (off-the-shelf).

C. Technical and professional capabilities

The use of the technical and professional capabilities criteria is considered necessary and relevant in the EEPP exercises, as it protects the contracting authority from awarding contracts to economic operators who do not possess the appropriate understanding and the required experience, means and infrastructure to perform EE contracts at the expected performance level.

Among criteria used for assessing the technical and professional capabilities, relevant for an EEPP exercises, might be considered for the purpose of addressing EE aspects:

- i. previous experience in the performance of contracts with a scope which is of relevance to the scope of the contract to be awarded;

- ii. requirements regarding the suitability of products, technical equipment, equipment and means of study and research, organization and staffing of technical bodies, machinery, facilities and other infrastructures, for the contracts where availability of relevant specialized equipment is considered necessary.

D. Consideration of quality assurance and environmental management systems

The criterion related to the existence of a quality assurance system with the economic operator should be used when the effectiveness of the measures taken by economic operators to ensure the quality of their activities is relevant for the contract resulting from the procedure.

The criterion related to environmental management system should be used in cases of contracts in which their performance might place a risk to the environment, thus necessitating the adoption of measures to protect the environment during the contract performance, for instance when energy efficiency works contract are awarded. This criterion is valid only for service and works contracts.

In parallel with establishing the criteria to be used, the contracting authority should set out in a clear manner what type of information is considered relevant and what means of proof will have to be provided.

5.2.9 Advertisement of the subject matter

The rules applicable for any public procurement exercise in terms of publicity are also applicable to the advertisement of EEPP exercises, and include:

- prior information notice (optional for all types of contract and any procedure)
- contract notice (mandatory for all type of contracts for open, restricted, negotiated procedure with publication of a contract notice, competitive dialogue)
- contract award notice (mandatory for all type of contracts awarded under open, restricted, negotiated procedure with or without publication of a contract notice and competitive dialogue).

Minimum timescales by which interested parties have to either express an interest by submitting an application for participating in the procedure, or submitting a bid will must be stated in the contract notice. The minimum timescales for each procedure to be followed by contracting authority for each type of procedure is specified in the legislation.

However, in order to stress the existence of an EEPP exercise, the following should be considered: the intentions for EEPP result must be clearly stated in the title of the advertised contract: e.g.:

- "EPC (Engineering, Procurement and Construction) contract for an energy efficient hospital building"
- Energy-efficient products facility
- Energy efficient led lighting retrofit
- Supply of Energy Efficient Computer Monitors
- Modernization Of Outdoor Lighting By Changing To Energy Efficient Light Fixtures With Electronic Ballasts
- Supply of energy efficient lights

This ensures not only the transparency of the procurement process but it shows from the very beginning the intention of the contracting authority;

- ii. the qualification requirements must be presented detailed enough to show the level of requirements and the requested supporting documents
- iii. the award criteria should be MEAT.

5.2.10 *Criteria Application*

For the criteria to be applied, the following is required:

- A minimum level of performance as regards the technical specifications should be defined and additional points should be awarded for better performances in the evaluation phase (e.g. in case eco label standards are adopted, extra points should be awarded for performances that do better than those provided for by the said standards).
- Assessment of the criterion on the basis of energy requirements.
- Evaluation of the Lifecycle Cost.

The evaluation must take into consideration:

- The purchase price and relevant expenses (delivery, installation, activation, etc.).
- The operation cost, including energy, spare parts and maintenance.
- The resultant cost at the end of the lifecycle (e.g. cost of decommissioning or of cessation of disposal).

5.2.11 *Terms for the execution of the contract*

The rules governing the terms and conditions of the contract should:

- Not consist in technical specifications, or evaluation or selection criteria.
- Be able to include specific obligations agreed upon during the contract award.
- Be clearly defined in the invitation to tender.
- Relate to the execution of the contract.
- Not entail positive discrimination in favor of any contractor.
- Enable the use of environmental terms in the type of product delivery adopted.
- Enable the use of ways to improve the environmental impact of the contract, such as:
 - Delivery of the proper quantities.
 - Delivery at off-peak times.
 - Recovery of any packaging accompanying the product.
 - Reference to the carbon dioxide emissions and the measures adopted by the supplier to reduce such emissions.
- Enable the monitoring of compliance, by means of:
 - The provision of proofs of conformity.
 - In situ controls by the contracting authority.
 - Assignment to a third party.
 - Sanctions for non compliance or reward for good performance.

5.2.12 *Contract management and reflection on performance for lessons learned purpose*

Throughout the duration of contract, at the contracting authority level, Contractor's performance must be monitored and controlled since it is not enough to have in the contract provisions related

to energy efficiency. They become effective if compliance with the agreed contract provisions is properly monitored.

For a contract related to EE subject matter, these are the examples of aspects, which should be subject of monitoring by the contracting authority:

- i. timely delivery, understanding by this delivery of the subject matter of the contract within the term provisioned in the contract;
- ii. response of supplies to the quantitative overall qualitative and EE requirements;
- iii. delivery of the supplies and suitability of technical means of support for transport;
- iv. provision of certificates and any other supporting documents which demonstrates the compliance with agreed EE features;
- v. completeness, compatibility with legislation and relevant standards, applicability /feasibility, precision and correctness of design elements.
- vi. Relevant in the context of the EEPP is also a reflection on the overall success of the EEPP and on any weaknesses, deficiencies in the specifications or contract provisions. By doing so, the contracting authority has the opportunity to clarify whether the issues that appeared during
- vii. the contract performance are due to:
 - ambiguity or inadequacy of the contract provisions;
 - weaknesses in the content of requirements/specifications;
 - weaknesses in the tools/techniques utilized for calculating the life cycle cost of the item (supplies, works or services);
 - lack of required experience and of the appropriate competencies of the staff participating in the preparation of the bidding documents or in the contract management.

In order to provide value, the results of this reflection must be recorded and communicated within the contracting authority to relevant stakeholders in order to be used as "lessons learned" in the preparation of future EEPP exercises.

6. TEMPLATE FOR THE REQUIREMENTS, AWARD CRITERIA AND CONTRACT CLAUSES THAT CAN BE USED WHEN DEALING WITH EEP

This section presents a useful template used in the drafting of the national guidelines by the EFFECT partners of *energy efficiency* requirements, award criteria and contract clauses for:

- ICT equipment
- Vehicles
- Outdoor lightning
- Constructions

Identified need
It is imperative for obtaining an efficient outcome for an EEP that the content of procurement activities is aligned with the strategy and the objectives of the contracting authority itself.
Object of the contract
The use of a title referring to energy saving conveys a message not only to potential suppliers/contractors, but to the local community and other contracting authorities as well.
Technical specifications
<ul style="list-style-type: none"> • In the description of the contract’s object and the minimum compliance requirements. • In the requirements according to which tenders shall be evaluated. • In their formulation by reference to European, international or national standards or in terms of performance or functional requirements (which may contain energy-related characteristics). • In the wording with reference to the energy labeling
Use of technical standard
<ul style="list-style-type: none"> • International standard: a standard approved by an international organisation for standardization which has been made available to the public • European standard: a standard approved by a European organisation for standardization which has been made available to the public • National standard: a standard approved by a national organisation for standardization which has been made available to the public • Reference to performance or functional requirements • Each reference should be accompanied by the words “or equivalent”.
Description
<ul style="list-style-type: none"> • Describe the outcome pursued and the expected performance, • Do not define the production means or working method of the supplier, who is free to propose the most suitable solution, • The wording “or equivalent” is required here as well.

Verification of compliance

- Reference to binding legislation. The proof of accordance with such legislation or with its application at national level is normally provided by the supplier since this is a necessary condition for the exercise of an entrepreneurial activity within the EU.
- Use of energy labeling criteria; in this case, the products or services bearing the said labels are considered to meet the specifications.
- Submission of test results, a technical dossier or a declaration by the manufacturer.
- Application of technical standards, by using the compliance evaluation procedure in force for the relevant standard and by accepting certification as a proof of the product's conformity.

Criteria for selection of suppliers

Exclusion criteria
Two of the criteria may assume an energy/environmental dimension:

- In case of conviction for offences concerning the professional conduct.
- In case of grave professional misconduct.

Selection criteria

Technical Capacity.

- Experience in the execution of supplies of products or services related to energy consumption or use.
- Duly trained personnel.
- Availability of the necessary equipment for the installation/manufacture of the product or service to be assigned.

Evaluation of tenders

- On the basis of the lowest price.
- On the basis of the most economically advantageous tender.
- In case tenders are evaluated on the basis of the lowest price, the criteria of the notice must be clear and strict, in order to opt for the solutions which meet the minimum energy efficiency prerequisites

Rules applying to the evaluation criteria

- relate to the object of the contract,
- not grant unlimited freedom of choice,
- ensure they are verifiable,
- be published in advance,
- not be regarded as selection criteria,
- comply with the community legislation.

Criteria application require

- A minimum level of performance as regards the technical specifications should be defined and additional points should be awarded for better performances in the evaluation phase (e.g. in case eco label standards are adopted, extra points should be

awarded for performances that do better than those provided for by the said standards).

- Assessment of the criterion on the basis of energy requirements.
- Evaluation of the Lifecycle Cost.

The evaluation must take into consideration

- The purchase price and relevant expenses (delivery, installation, activation, etc.).
 - The operation cost, including energy, spare parts and maintenance.
- The resultant cost at the end of the lifecycle (e.g. cost of decommissioning or of cessation of disposal).

Terms for the execution of the contract should:

- Not consist in technical specifications, or evaluation or selection criteria.
- Be able to include specific obligations agreed upon during the contract award.
- Be clearly defined in the invitation to tender.
- Relate to the execution of the contract.
- Not entail positive discrimination in favor of any contractor.
- Enable the use of environmental terms in the type of product delivery adopted and enable the use of ways to improve the environmental impact of the contract. as:
- Enable the monitoring of compliance

7. REFERENCES

EFFECT Project

- Italian National Guidelines – Araen and SVIM
- Hungarian National guidelines - Norria
- Slovenian National guidelines- JSI and MJ
- Romania National guidelines – ADR Nord Est
- Greek National guidelines – Dafni
- Austrian National guidelines - EAO

References :

Directive 2006/32/EC of the European Parliament of the Council of 5 April 2006 on energy end-use efficiency and energy services and repealing Council Directive 93/76/EEC, O J L 114/64, 27.4.2006

European Commission Communication no. 400 of 16th July 2008, Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Public Procurement for a Better Environment, <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2008:0400:FIN:EN:PDF>

Swiss-led Marrakech Task Force on Sustainable Public Procurement in Procuring the Future. http://www.unep.fr/scp/procurement/docsres/ProjectInfo/MTF_Flyer_A4_Ansicht.pdf

Communication from Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the regions - Public Procurement for a Better Environment, Brussels, 2008, p.2;

Energy Efficiency in Public Procurement – Member States experience, barriers/drivers and recommendation European Commission – report prepared by the Joint Research Center of the European Commission - http://ec.europa.eu/energy/efficiency/studies/doc/2010_05_jrc_ee_public_procurement.pdf

European Union (2010): How to develop a Sustainable Energy Action Plan (SEAP) – Guidebook developed in the framework of Covenant of Mayors