CONCERTED ACTION
ENERGY EFFICIENCY
DIRECTIVE

Contribution of the public sector to the EED goals - achievements and perspectives

Executive Summary 2.8

Public Sector - public buildings and public purchasing

Branka Bugarin	SI
Dinis Rodrigues	PT
Alan Ryan	IE
Anna M. Sàlama	IT
Tadeusz Skoczkowski	PL
Irma Thijssen	NL

Date: 9 December 2016

1 Summary

1.1 Background and motivation

This report focuses on the specific problems of implementation of Article 5 on public buildings and Article 6 on public purchases. The main objective is to discuss whether and how the goals set by the Energy Efficiency Directive (EED) for the public sector have been met from the practical point of view of implementation. This report aims to provide a retrospective review of the work carried out in this area within the CA EED and assess the strengths and weaknesses.

Seven aspects of the EED implementation were chosen for discussion inventory of central government buildings; alternative approach in Art. 5 in practice; energy efficiency in historical buildings, places of worship and buildings owned by the armed forces; implementing Art. 6 on public purchasing of products, services and buildings; public sector in energy efficient transport services; monitoring of Art. 5 implementation progress – cost effectiveness of measures.

The methodology applied consisted of reviewing and selecting the topics which best illustrated the contribution of the Concerted Action to the successful implementation of the EED in the public sector. Overviews of the research and findings to date with regard to Art. 5 and Art. 6 were created and three questions were addressed: What areas are MS still struggling with? What do they still need to implement within the Directive? What assistance is still needed in the future?

1.2 Most important findings

Building the inventory required by Art. 5 is a challenging task. The practical means of setting up such an inventory should be researched and exchanges of experience between MS should take place. Existing public or private building stock databases should be used as a basis for such an inventory. The inventory should serve other purposes as well, and therefore its scope should where possible be enriched by providing additional data, e.g. reduction of CO_2 emissions, energy intensity of the building measured in terms of one occupant or visitor. Based on their experience of renovating public buildings, MS should encourage municipalities and other public bodies to adopt integrated and sustainable energy efficiency plans with clear objectives, to involve citizens in their development and implementation and to adequately inform them about their content and progress in achieving these objectives.

Art. 5 allows two different approaches to achieve its requirements: the “default” and the “alternative”. Based on the information provided by the report “Monitoring of Art. 5 implementation progress – cost effectiveness of measures”, approximately two thirds (64%) of the MS have chosen the “alternative” approach due to the higher number of measures that can be considered, the higher energy savings and also the lower associated investment costs. The main two reasons for choosing the “default” approach are the organisational and technical merits this approach offers. Calculating the energy saving target (in energy units) for both approaches poses a problem to the majority of MS. MS use different methodologies for calculating the target; most tend to use a combination of methods. Further research on the most appropriate calculation methods and then an exchange of experience should be recommended. MS have problems with building on experience and knowledge that should have been gained in the implementation of the EPBD. Joint implementation of the EED and the EPBD encounters a common barrier in many MS, namely that the two Directives are being implemented in different governmental units, usually by two different Ministries. The use of energy performance contracts (EPCs) or Energy Saving Companies (ESCos) for the purpose of Art. 5 is still in its initial phase and as such should intensively be promoted.

As for the buildings that could be exempted (Art. 5.29), it is hard to adequately estimate the role of energy efficiency improvements made in historical buildings, churches, chapels or military barracks, considering that their positive and creative impact on public awareness requires a wider range of interventions other than only energy efficiency (EE). However, there is room to recommend that any exemptions, though allowed, should be taken with care and minimised in number whenever possible. Even the MS which asked for exemptions should review the real necessity of them in future.

It was agreed that public procurement is one of the most powerful tools for public authorities to demonstrate their leading role in the process of energy efficiency improvements, embracing the whole economy and society. Due to

its market position, the power sector is a crucial player in the process of transforming the markets for products, services and buildings to become more energy efficient.

It was proven that despite the fact that transportation is not directly addressed in the EED, some of the current provisions are applicable in the transport sector. Transport develops at a tremendous speed across all MS. Its contribution to Green House Gas (GHG) emissions is steadily growing although it does not receive sufficient attention in EU climate and energy policy. Convincing people to use public transport remains crucial for the development of future cities. Investing in energy consuming transport infrastructure such as roads, whilst neglecting investments in railways, will have far reaching consequences for overall energy consumption and EU energy security. This topic received keen interest from members of the Concerted Action and discussion in this area should be continued.

The issue of cost effectiveness of measures is of great importance in all activities aimed at improving the energy efficiency of public, private and commercial building stock. The ability to prove the cost effectiveness of retrofitting buildings plays a crucial role in financing. Cost effectiveness of measures in renovation of public buildings is still an Achilles heel of the vast majority of such projects: the ability to prove economic advantages is even more important in projects where public rather than private money is being invested. Providing standardised methods of cost effectiveness evaluation would therefore remove one of the most important barriers in public building renovation.

Substantial progress in the use of the EPCs has been made in recent years. EPCs together with ESCOs are the most frequently used form of energy services. They also contribute to the development of energy audits and are of interest for financing institutions in energy efficiency. They are becoming accepted in both private and public sectors.

2 Recommendations/Conclusions

2.1 Conclusions

Discussions on both Articles gave some conclusions and observations on the needs of:

- Improving knowledge, skills and awareness, perhaps though continued exchange of good practice and examples through the Concerted Action.
- Stronger linkages with other Directives, not only with the Energy Performance of Building Directive (EPBD) but also with the Directives on Renewable Sources, Eco-Design and Labelling, Public Procurement, Clean Vehicles.
- Stronger synergies between different competent public bodies within MS.
- Easier access to funding opportunities for all energy efficiency related projects.

A general assessment our discussion as part of the Concerted Action also provided some conclusions:

- Discussion on the public sector through the Concerted Action work contributed to a better understanding of the implementation of Art. 5 and Art. 6 of EED across MS.
- The cross-cutting issue of Energy Performance Contracting is seen as a modern mechanism of financing energy efficiency projects.
- All examples were illustrated by demonstrating practical cases so that the real problems could be brought to the surface and discussed. It produced a wide spectrum of implementation processes ongoing in different MS.

2.2 Recommendations

Based on the discussions, a number of recommendations for future work can be proposed:

- Future discussions relating to the public sector should be closely combined with building renovation as stipulated by Art. 4 of the EED. This way, the same team will be involved in all aspects of the building sector directly covered by the EED.
- The activities undertaken at the local level as required in Art. 5 and Art. 6 should be better linked to become more effective.

- Presentations of model cases and practical examples provide the best basis for discussions and sharing of solutions.
- Future works should embrace different articles of the EED in a more cross-cutting manner, trying to find and make full use of the options given by the EED.
- Following some good experience of co-operation with the CA EPBD, more joint actions should be undertaken. There are a number of topics which cannot be effectively solved while acting separately, e.g. Art. 4 on building renovation.
- Practical tools needed for implementation, e.g. spreadsheets enabling assessment of energy efficiency in MS, should be proposed for inclusion in frameworks of other EU programmes, e.g. Horizon 2020.
- The relations between the EED inspired energy savings and the functioning of the EU ETS should be clarified. Are they complementary, overlapping or do they stand apart from each other?
- The conclusions and recommendations reached through the Concerted Actions could be better used to introduce more aspects and stringent criteria on energy efficiency into EU financed projects, e.g. to the framework of the European Structural and Investment Funds (ESIF).
- Better mechanisms for tracing the impact of the Concerted Action on MS policies and practical implementation solutions should be considered in the future to ensure that its influence is fully assessed and presented.

3 Practical Examples

During the sessions at the Plenary Meeting in Bratislava the following good examples were presented and discussed:

Box 1. Energy Performance Contracting. Best practice in the Netherlands

- Guidelines for Tenders for EPCs.
- White paper with best practice.
- Infographic illustration.
- Online tool for creating an EPC
- http://www.platformduurzamehuisvesting.nl/instrumenten/menu-performance-contracts/

GuarantEE:

- EPC facilitators network.
- Online precheck, available in 2017.
- Database: www.guarantee-project.eu/bestpractice
- Reports, market reports, newsletter: http://guarantee-project.eu

Box 2. Implementing Art. 6 on public purchasing of products, services and building – best practices

Ireland – aligned with Green Public Procurement

- Procuring energy suppliers – encourage electricity suppliers with a high percentage of renewable energy
- Procuring equipment – from a list of EE equipment or equivalent
- Procuring services – consider energy contracting
- Procure new build/retrofit/design – minimum rated building and use Energy Efficiency Design concepts
- 2017 developing a procurement pack

Netherlands

- National public expertise centre offers support for national and local governments
- Start as early as possible
- Shift from technical requirements to functional requirements
- Minimum criteria are mandatory; reward criteria are voluntary

Italy

CONSIP, the Italian Central Body of Purchasing, is promoting energy efficiency under EED implementation:

- It offers consultancy and project design services,
- It is a competence centre specialising in all phases of the procurement value chain,
- It relies on about 300 employees.

Box 3. Capacity Building on Energy Performance Contracting in European Markets in Transition (EnPC-INTRANS)

Objective of the project:
Develop local capacities of municipalities to set-up and use Energy Performance Contracting (EPC) for the financing of investments in energy efficiency improvements in public buildings and services.

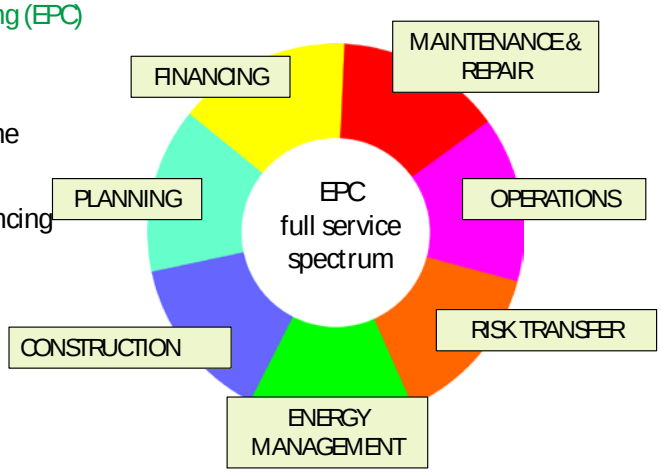
Energy Performance Contracting (EPC)

Public building owners can finance energy efficiency measures in general by means of:

- Commercial and bank credit (loans)
- National or international subsidy programs and schemes, if available
- Own financing (budget-financed)
- Energy Performance contracting (EPC)

Financing is an important part of the services covered in an EPC.

For many potential customers financing is the most attractive part of EPC services for public buildings.



6

More about EnPC INTRANS project www.enpc-intrans.eu

For more information please email
tskocz@itc.pw.edu.pl

Legal Disclaimer

The Concerted Action for the Energy Efficiency Directive (CA EED) was launched by Intelligent Energy Europe (IEE) in spring 2013 to provide a structured framework for the exchange of information between the 29 Member States during their implementation of the Energy Efficiency Directive (EED).

For further information please visit **www.ca-eed.eu** or contact the CA EED Coordinator Lucinda Maclagan at **lucinda.maclagan@rvo.nl**

CONCERTED ACTION
ENERGY EFFICIENCY
DIRECTIVE

Co-funded by
the Intelligent Energy Europe Programme
of the European Union