

**Bellona Europa**

**Recommendations on how to improve  
energy efficiency in buildings through  
the new Polish national energy  
efficiency action plan (NEEAP)**

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## 1. Introduction

Energy efficiency could play a key role in enhancing Polish energy security and reducing emissions, provided that it becomes a priority for the Polish government. According to estimates of the Foundation for Energy Efficiency, the potential to reduce energy consumption in Poland amounts to 212 TWh/year<sup>1</sup>. In comparison, estimated energy production by nuclear power plants in 2030 will amount to 32 TWh/year<sup>2</sup> - nearly seven times less.

Directive 2006/32/EC on Energy End-Use Efficiency and Energy Services introduced an obligation for Member States to submit National Energy Efficiency Action Plans (NEEAPs) to the European Commission. The NEEAPs aim at achieving significant energy savings in end-use sectors. For the purpose of their first NEEAPs, each Member State adopted an overall national indicative savings target to be

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<sup>1</sup> Fundacja Efektywnego Wykorzystania Energii, Potencjał efektywności energetycznej i redukcji emisji w wybranych grupach użytkownika energii, Katowice 2009.

<sup>2</sup> Polityki Energetycznej Państwa do Roku 2030. Warszawa.

achieved by 2016 and an intermediate target for 2010.<sup>3</sup> Poland has however not made much progress in achieving the goals presented in the first NEEAP.

Numerous opportunities exist to reduce power consumption by improving energy efficiency of vehicles, buildings and industrial equipment in Poland. The most important possibilities in lie in the buildings sector, where implementing stricter efficiency controls for new buildings and better insulating existing ones could abate almost 30MtCO<sub>2</sub>/year by 2030 – 13% of the total potential according to McKinsey (Figure 1.).

### GHG abatement cost curve for Poland in 2030<sup>1</sup>

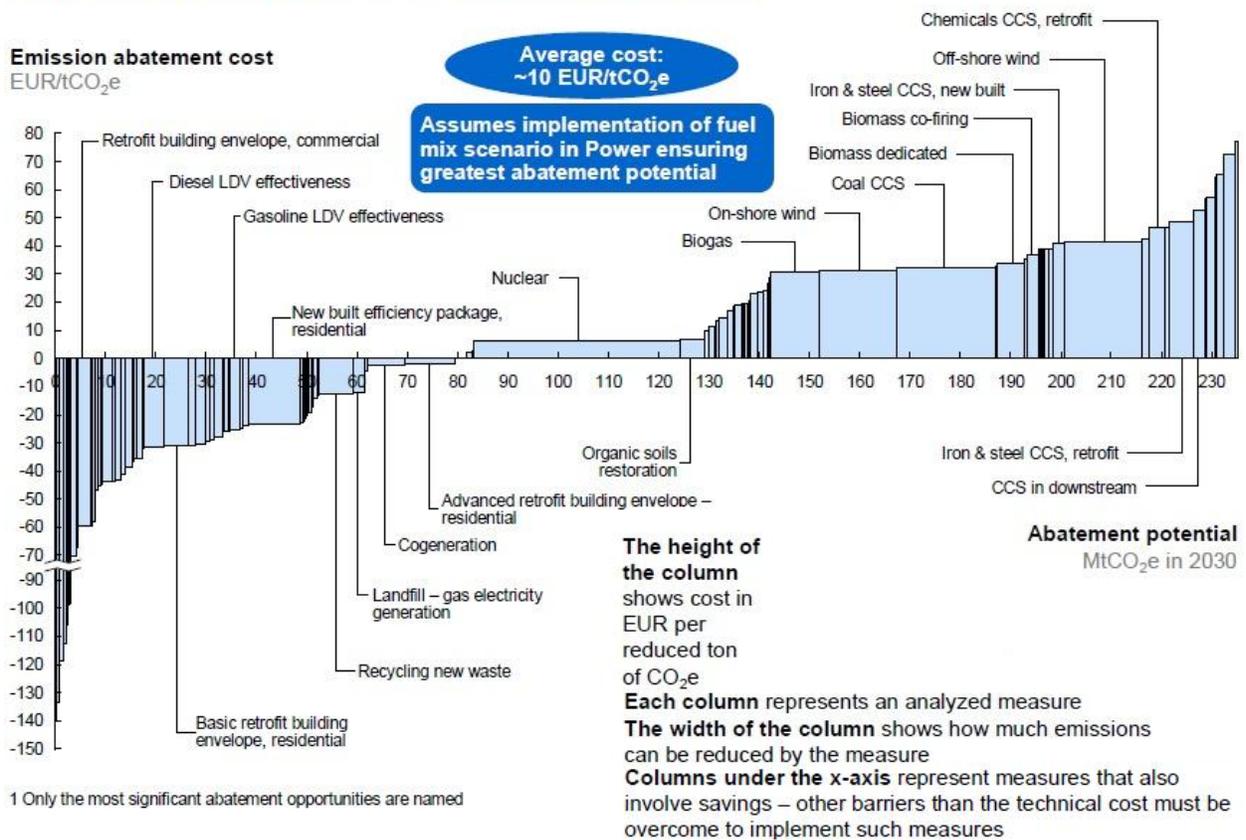


Figure 1 Assessment of Greenhouse Gas Emissions Abatement Potential in Poland by 2030, McKinsey & Co., Warsaw 2009

Due to all the above mentioned reasons, Bellona invited the most important Polish stakeholders to share their views and come up with constructive recommendations on how to shape the new NEEAP with regard to buildings.

<sup>3</sup> Commission Staff Working Paper, National Energy Efficiency Action Plans (NEEAPs): update on implementation, Brussels, 8.3.2011

The players involved were:

- FEWE – Fundacja Efektywnego Wykorzystania Energii (Foundation for Energy Efficiency)
- MIWO – Stowarzyszenie Producentów Wełny Mineralnej i Szklanej (Mineral and Glass Wool Manufacturers Association)
- NAPE – Narodowa Agencja Poszanowania Energii (National Energy Conservation Agency)
- SAPE - Ogólnokrajowe Stowarzyszenie "Poszanowanie Energii i Środowiska" (National Association "Respect for Energy and Environment")
- ZAE – Zrzeszenie Audytorów Energetycznych (Association of Energy Auditors)

They met numerous times in the first half of 2011 to discuss recommendations to the NEEAP. The summarised outcomes of those meetings are to be found in this report.

## **2. Enabling energy efficiency in buildings generally**

### **a. Improving certificates for energy performance**

Energy certification for buildings is the only way their actual energy performance can be measured objectively.

Such certificates are issued by an authorized specialist. It sets out the demand for energy necessary to use the building or premises (such as heating, hot water, ventilation and air conditioning). The certificate of estimated energy needs resulting from the technical conditions of the building and its installations should be based on its solid, objective characteristics, rather than measurements of energy consumption, which may vary depending on habits of inhabitants.

The transposition of the EU requirements<sup>4</sup> to Polish law has led to the energy certificates being of limited usefulness. Key problems to be avoided in the future are:

- Too large scope for interpretation in the application of the methodology by the certifier;
- Ignoring the obligation to carry out inspections of cauldrons, heating and air conditioning systems.

### **b. Central register for state of energy performance in buildings**

A way forward for energy efficiency in buildings in Poland would be developing a detailed diagnosis with particular emphasis on real estate sector and the process of thermo-modernisation. The diagnosis should be based on centralised information about the current stately standards for energy efficiency in buildings. Therefore, a central register of energy performance and thermal retrofit certificates should be in place. Our suggestion is to allocate the resources of the National Fund for Environmental Protection

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<sup>4</sup> Directive 2006/32/EC on Energy End-Use Efficiency and Energy Services

and Water Management for this purpose. Moreover, building a database of state buildings in Poland reinforced with a catalogue of physical and financial instruments for energy efficient construction, particularly of nearly zero energy buildings, would be of relevance. Bellona suggests Ministry of Infrastructure should be responsible for those actions as well as for creating the time schedule for reforming the energy certification in buildings. At the same time we recommend Ministry of Economy be responsible for timetable for the adoption of regulations to the Law on Energy Efficiency<sup>5</sup>.

We also suggest evaluating how effective the energy performance certificating system is in promoting energy efficiency in buildings. A detailed planning concerning verification and modernization of the energy certification in buildings would be relevant.

### **c. Revise technical requirements for buildings**

The currently applicable Polish technical requirements do not motivate to build energy efficient buildings and need review.

### **d. Ensure the future white certificate market creates demand for deep renovation of buildings**

In environmental policy, white certificates are documents certifying that a certain reduction of energy consumption has been attained. In most applications, the white certificates are tradable and a market for them is provided by an obligation put on energy distributors to achieve a certain target of energy savings by surrendering a number of white certificates to a national authority. The Polish energy efficiency scheme is to be implemented as of 2013 and it will be combining white certificates system with tendering procedures.

## **3. Programme supporting nearly zero energy buildings and their financing**

### **a. Amending the regulation of technical conditions of buildings and their location to stimulate nearly zero energy buildings**

The amendment to the *regulation of technical conditions of buildings and their location*<sup>6</sup> would be a big stepping stone. A work schedule should be created specifying the path to achieving it. The amendment should include a definition of nearly zero energy building, and the path to reach the standard of such a building. Moreover, it should determine the levels of technical requirements along with the dates of entry into force.

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<sup>5</sup> Ustawa z dnia 15 kwietnia 2011 r. o efektywności energetycznej

<sup>6</sup> Rozporządzenie Ministra Infrastruktury w sprawie warunków technicznych, jakim powinny odpowiadać budynki i ich usytuowanie

The suggested responsible entity developing the work plan on amending the regulation on technical conditions to be met by buildings and their location is the Ministry of Infrastructure.

### **b. Funding for nearly zero energy buildings**

Furthermore, we recommend including nearly zero energy buildings to the thermo-modernisation funding programme currently being implemented by NFOŚiGW<sup>7</sup>. Given the pilot nature of such a grant – funding of those activities should be higher than in conventional activities related to energy efficiency modernization of public buildings. To facilitate this, sample projects of nearly zero energy buildings should be developed. They would be an inspiration and a point of reference for all potential investors.

Pursuant to the requirements of the Energy Performance of Buildings Directive (EPBD - 2002/91/EC) - all new buildings starting from 31.12.2020 should be of almost zero energy. For public buildings, this obligation will be introduced on 31.12.2018. Therefore, in the next programming period EU funding for public buildings should be provided only for nearly zero energy buildings. In addition, we recommend registering ESCO (Energy Saving Companies) contributions to count as co-funding for EU-funded projects. The State should announce competitions for developers building highest energy standard buildings. This would facilitate the development of the low-energy housing market. The suggested responsible entity is the National Fund for Environmental Protection and Water Management.

## **4. Nationwide educational campaign**

A nationwide information campaign should be planned in detail and included in NEEAP. The plan should:

- define the detailed scope of the campaign (e.g. promoting nearly zero energy buildings);
- present a programme and channelling of the campaign (e.g. TV spots / radio training for developers, etc.);
- include a detailed budget for each operation planned within the years 2011 - 2016 (e.g. TV spots / radio, training, etc.)
- identify the entity responsible for the implementation of the campaign (e.g. Ministry of Environment)
- identify measurable desired effect (for example, on the basis of diagnosis of consumer attitudes).

The suggested responsible entity is the Ministry of Environment.

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<sup>7</sup> Narodowy Fundusz Ochrony Środowiska i Gospodarki Wodnej - National Fund for Environmental Protection and Water Management

## **5. Appointment of a representative for energy efficiency on the governmental level.**

We are advocating the establishment of a representative for energy efficiency on a governmental level. The role of such a person would be to coordinate activities for energy efficiency in various sectors - construction, industry, energy and transport.

Such a representative should coordinate and plan all actions for the improvement of energy efficiency in buildings on the governmental level and ensure that appropriate actions and responsible bodies are included in the next NEEAP.

In the longer term, the establishment of governmental institution for energy efficiency should be planned, following the example of such institutions already operating in other European countries.

## **6. Energy efficiency should be included in technical universities' studying programmes, particularly in fields related to construction.**