

EU energy efficiency plans – efficient enough?

ENERGY EFFICIENCY IS NOT AS EASY TO ACHIEVE AS ONE WOULD THINK. THE 27 EU MEMBER STATES THEMSELVES ARE STRUGGLING TO GET TARGETS AND ACTIONS STRAIGHT, BUT AN EU PROJECT HAS BEEN RUNNING TO MAKE SURE THESE WILL ULTIMATELY BE SET IN PLACE, AS ECOFYS' **ROLF DE VOS** EXPLAINS.

The EU has long recognised the enormous possibilities of energy efficiency. In 2006, Brussels agreed that every Member State should strengthen its policies and put together a *National Energy Efficiency Action Plan (NEEAP)*.

Recently, the EU's *Energy Efficiency Watch* assessed all of these action plans and concluded that while good practices do exist - especially in the buildings sector – more had to be done to convert some promising schemes into real major contributions across the whole European Union Bloc.

For a long time energy efficiency has been perceived as being a quick, cheap, and direct way of combating climate change and improving the security and affordability of energy supply. But energy efficiency is actually not that easy to implement, especially in the buildings sector. And it is the buildings sector that is expected to bring about more than half the total savings potential.

National and international policies are supposed to break down barriers to implementing energy efficiency. And the NEEAPs are considered to be an important instrument with which the EU can monitor and accelerate these EU-wide efforts in energy efficiency.

The action plans cover all sectors not subject to the *Emissions Trading Scheme*: i.e. buildings; smaller industry; transport; and agriculture. And they also contain targets that should add up to a 9% efficiency improvement in all subsequent sectors in the period 2006 to 2016. NEEAPs are also supposed to focus on the instruments put in place (or announced) by each county.

In reality hardly any country met a 30 June 2007 deadline. Nevertheless, the European Commission made some provisional conclusions about the first round in January 2008. On the basis of the 17 NEEAPs that had been submitted, the Commission concluded that most action plans seemed to present a business-as-usual approach. The Commission said that it "looked forward to further plans and to the exchange of experience and best practices".

Analysing NEEAPS - the Energy Efficiency Watch

The Energy Efficiency Watch project, financed by the **Intelligent Energy in Europe** programme of the European Commission and coordinated by the *European Forum for Renewable Energy Sources (EUFORES)*, is the first project designed to assess all 27 NEEAPs in a comprehensive way.

Its goal is the exchange of information, while creating transparency on the level of countries' ambitions. The project executed an in-depth analysis of 12 selected plans, from both large and small EU countries. The research was performed by the **German Wuppertal Institute** and **Ecofys Germany** with the additional input of several stakeholders.

Malta's green leaders

In 2005 the Maltese Prime Minister Lawrence Gonzi appointed a *Green Leader* in each of the 14 ministries of EU's smallest member state. The Green Leaders act as catalysts for action to promote environmentally-friendly practices within their spheres. Energy efficiency is a main focus. They collect data, develop and implement plans and disseminate the results to other ministries.

The Green Leaders are coordinated by the *Government Environmental Corporate Responsibility Office*, which has been set up for the purpose within the *Office of the Prime Minister*. Within each ministry the Green Leader reports to the director responsible for programme implementation, who has been designated as the main focal point for environmental issues.

Although not quantified yet, a recent Maltese report concludes that the results are encouraging. Presently, strategic planning is regarded as important to help the Green Leaders to achieve their goals more effectively.



The EEW research covered several aspects of the NEEAPs, such as target setting; data monitoring; policies and measures that were implemented or announced; and best practice (the EEW project did not have the opportunity to closely monitor the results of these policies and measures, partly because a number of measures had only just been announced or had not been in place long enough at the time of the project).

More than half of the total [energy] savings potential is expected to be accommodated by the buildings sector alone.

Meeting targets

First, all NEEAP paperwork was screened to check if it complied with the requirements of the *Directive on energy end-use efficiency and energy services, ESD 2006/32/EC*. All 27 member states submitted an NEEAP and Belgium even submitted four plans – a Federal one plus three regional plans.

Almost all plans met the 9% savings target between 2007 and 2016. Some countries used other time frames, which had already been written in to national efficiency policies, and 8 of the 27 EU states even proposed more ambitious targets. The UK took the lead with an expected 18% target, while Romania proposed 13.5%. Most member states also set interim targets, which will make the monitoring of progress easier.

The public sector

One of the most important issues that had to be covered by the action plans was the extent to which the public sector demonstrated an exemplary role within its buildings and transport infrastructure. It is deemed important that governments set a good example on energy efficiency.

Formally, almost all member states apart from the Czech Republic met this requirement. They all demonstrated that energy efficiency in the public sector is promoted, however there are huge differences in scope and actions.

Most member states have established programmes for the public procurement of energy efficient appliances and buildings, but only 15 plans explicitly refer to measures (and the way they will be implemented) while others only provide very basic information.

White Certificates in Italy and France

Building on more in depth experience in Italy, France has established a system for *White Certificates*. One White Certificate represents an amount of energy savings with the customer – compared to a baseline.

Large electricity and gas suppliers are obliged to achieve annual energy savings targets, and have the opportunity to do this either by executing

projects or by purchasing White Certificates on the market. Suppliers with relatively low marginal costs may take savings measures and sell the excess certificates on the market.

Although the EEW project did not measure the effects or experiences, the system seems to be a good measure to create a market for energy efficiency. In Italy the White Certificate system is sometimes hindered by local measures, which make it hard to define priorities. The French system has announced a more coherent system.

The Irish Power of One campaign

The Irish *Power of One* (www.powerofone.ie) campaign builds mainly on education and communication. The campaign focuses on three issues: awareness on energy sources; costs; and environmental impacts. The campaign informs consumers about the impact inefficient energy use has on costs and the environment, and calls on the responsibility of the individual.

The campaign uses the power of examples:

- In the *Power of One Street* project, the energy efficiency of 8 families from different geographical and social backgrounds was tracked. Every month, the participants were set a challenge to improve their energy efficiency. The savings measured were announced in the media;
- Another example is the *Power of One at Work* project, which encourages employers and employees to be more energy efficient in the workplace. The initiative provides basic guidance on energy efficiency through an advertising campaign, a website and a toolkit for implementing a workplace energy awareness campaign at the local level.

The *Green Leaders* programme in Malta is an example of a good way to introduce efficiency targets (see box: *Malta's Green Leaders*). Sustainable public procurement programmes (The Netherlands wants to be 100% sustainable by 2010), binding targets (as the UK defined) and regulatory measures, are other effective instruments. Despite this, "in general we observe that the public sector could act more as a role model than it does at the moment," says Schüle at the Wuppertal Institute. "The public sector coverage is still rather weak, but there is a good chance for mutual learning here."

Energy services

Another important topic in the assessment of the Action Plans is the way that governments define the role of important stakeholders like utilities, retailers and energy service companies (ESCOs). A large majority of the 27 EU countries assign the role of 'important stakeholder' to the usual suspects in the energy sector: the utilities and retailers. "But the approach of these parties is still based on old paradigms," says Becker at Ecofys. "Utilities and retailers like to sell more of their products, while energy efficiency is about selling less."

The energy services could bridge this "interest gap". According to the *Energy Services Directive*, these stakeholders could largely improve energy efficiency for customers, in terms of indoor thermal comfort, domestic hot water, refrigeration, illumination and motive power. Energy services is not about selling as much as possible energy to customers, but to help them achieve efficient end-use.

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The EEW assessment however shows that member states are largely underestimating the importance of energy services and the market for companies that deliver them – the energy service companies. Only 30% of all NEEAPs refer to energy service companies. "That is a missed opportunity," according to Becker. "Especially in the buildings sector, energy service companies could achieve a great deal of efficiency for a low price or even at a profit. In the next NEEAP rounds countries should focus more on developing such an energy services market, including models for financing investments."

Next-generation action plans

The EEW project clearly indicates that the first generation of National Energy Efficiency Action Plans in many cases was too poorly developed to harvest what is a large potential for energy efficiency in Europe. The minimum requirements were fulfilled, but much more effort needs to be put into the plans, the EEW concluded.

A database of 'best practices' could inspire countries to make decisions that will effectively improve energy efficiency. This especially applies to the building sector, but also the transport sector, smaller industry and even agriculture.

Another important conclusion from the project is that new policies should be more integrated and coherently designed, instead of being a collection of individual measures, which sometimes conflict with each other. More often, these measures are not efficient in ensuring energy savings. For instance, if a subsidy is given for buildings that already comply with a standard, there would be no incentive to go beyond this. It would be more effective if all buildings are obliged to meet a standard, and that the subsidy is offered for those exceeding that level. This would stimulate innovation and progress in standards. "And innovation should be key in the next NEEAPs," says Ralph Schüle.

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A standardised reporting format would also be of great help. Also more emphasis should be put on harmonised methods to calculate targets and monitor results. And the role of energy service companies should be given more attention than now.

Given the huge challenges in emissions reductions and climate change abatement, the national action plans that have to be submitted in June 2011 will hopefully be much more sophisticated and effective than the last issue.

NB: More info about the EEW project can be found at www.energy-efficiency-watch.org/.

About the author

Rolf de Vos has been working as a science writer for almost 25 years, in the last 20 years specialising in energy, climate change and environmental issues. He now works for renewable energy research and consultancy firm, Ecofys.