



Key Policy Conclusions

From the Energy Efficiency Watch 3 Project

This paper provides key messages about effective policy making for energy efficiency, based on the findings of the 'Energy Efficiency Watch' (EEW, www.energy-efficiency-watch.org). EEW is an EU co-funded project analysing energy efficiency policies in all EU-28 member states. The Key Policy Conclusions are a synthesis of the results of 1) a screening of EU-28 policy documents, 2) a survey among 1100 energy experts from all EU countries and 3) a business stakeholder consultation in five selected EU member states.

EEW3 delivers practical evidence on where the implementation of energy efficiency policies stands, what is working well, what less - and why this is the case. Furthermore, ideas are provided on policy development enabling the transition towards a green industrial policy.

EU energy efficiency policies are shaped by four directives:

1. Energy Efficiency Directive (2012/27/EU, EED),
2. Energy Performance of Buildings Directive (2010/31/EU, EPBD),
3. Ecodesign Directive (2009/125/EC, ED) and
4. Labelling Directive (2010/30/EU, ELD).

All four directives have a track record of increasing energy efficiency in the EU. They are enabling business in various sectors: building renovation, industrial production, transport systems, procurement of energy efficient products, various standalone business models, etc. While the EU directives have defined the way forward, the effectiveness of the individual directives varies. EEW3 highlights considerable progress in national implementation, but also shows a wide gap for reaching the full energy efficiency potential and targets. The Key Policy Conclusions provide both general recommendations applying to all directives and detailed recommendations per directive.

All Stakeholders want energy efficiency policies, provided that they are effective

1100 stakeholders from all 28 EU member states were approached by EEW. Coming from different backgrounds (businesses, agencies, academics, governments & public institutions), they all had a positive attitude towards energy efficiency policies, agreeing that opportunities clearly outweigh the risks. Europe becoming 'number one on energy efficiency' is connected to many concrete chances such as job effects, increased competitiveness, stimulating innovation. However, policies are only regarded as supportive in this respect if effective and stable. If policies are frequently changing, if their structure and implementation is intransparent, especially commercial stakeholders will perceive them more as a burden than as a support for their business.

Therefore, acceptance for energy efficiency policies depends on the quality and effectiveness of policies as such. In this respect, the following conclusions give advice on how the quality and effectiveness of energy efficiency policies can be increased.

General recommendations to improve the effectiveness of policies

Stakeholders express their positive attitude towards EU framework directives provided that they encourage effective policies. This can be achieved by implementing the following recommendations:

1. Developing positive European and national narratives on energy efficiency
2. Better communication and higher effectiveness of energy efficiency policies
3. Fostering innovative business models
4. Introducing binding and specific targets and effective financial instruments

Developing positive European and national narratives on energy efficiency

Energy efficiency provides the chance to achieve climate targets, a strengthened economy, and energy security all at the same time. So far, EU directives have not been able to create a common understanding of the multiple benefits of energy efficiency for all EU Member States and the variety of their citizens, companies, and public authorities. Experience from various Member States shows that the added value of energy efficiency needs to be explained and communicated by national governments in order to implement successful policies and create broad acceptance and subsequent political majorities in favour of energy efficiency. The same holds for EU level policies.

Guiding the development of positive national narratives on energy efficiency, an EU debate or a joint vision on energy efficiency is essential to encourage countries to act on energy efficiency. Especially now that energy security stands high on the political agenda of many countries, this narrative can be used to create a common incentive in creating strong energy efficiency policies. In addition to energy security, the narrative on increased competitiveness, economic growth, employment, health, and, finally, climate and environment, can help to bring all countries together, jointly realising the aim of the 2020 Strategy: smart, sustainable and inclusive growth.

The Concerted Actions were launched to support the implementation of European directives. National authorities meet regularly to informally share information and best practices to successfully implement the directives and avoid pitfalls. The Concerted Action on EED should assist countries to develop their national narratives, framing energy efficiency policy as an investment, not a burden.

Existing national narratives on energy efficiency

In Germany, the national narrative originates from a long lasting debate about reducing economic vulnerability by the right fuel mix. It received its final political push in 2011 by the Fukushima nuclear accident, resulting in a broad majority of supporters for the energy transition, the so-called *Energiewende*, with a strong focus on energy efficiency. National consensus is based on the strong economic and technological dimension of the *Energiewende*, in combination with both ecologic aspects and the debate on security of supply.

In the 1970s, Denmark had an exceptionally high dependency on oil in its energy mix with more than 90% of its energy supply based on imported oil. Thus, the oil crisis in 1973 and 1979 created significant economic difficulties for the country. This crisis however pushed energy efficiency, renewables and, for some time, also coal in combination with agricultural and social policies (IRENA 2013)¹. Now, Denmark is one of the leading countries in the development of renewable energy and energy efficiency in the world (WWF 2013)². It has achieved a well-accepted balance between security of supply, agricultural and social politics, and ecological matters.

In countries, where the national narrative on energy efficiency is not yet very strong (e.g. many Central and Eastern European countries), and economic development is higher on the agenda than e.g. climate policy, political discussions should emphasize the multiple benefits of EE such as:

¹ IRENA (2013): GWEC Denmark. https://irena.org/DocumentDownloads/Publications/GWEC_Denmark.pdf.

² WWF (2013) Denmark – Global Leader on Climate and Energy.

- Technological transition and boost of innovation, accompanied by business opportunities especially in struggling regions, such as creation of new qualified jobs, and increased international competitiveness
- Leveraging co-benefits: improved energy security, fighting energy poverty, improving air quality etc.

In the upcoming Commission Impact Assessment for the non-ETS, positive benefits of a higher efficiency target on the decrease of the energy bill and the reduction of import dependency should be shown.

To find the right way of highlighting the multiple benefits of energy efficiency in the respective national context, results from IEA and the Horizon 2020 project 'COMBI' can be used. It is also important to listen more to the business community about how their market perspectives can be supported by effective policies. Where arguments for energy efficiency can be matched better with respective national priorities, also policy stakeholders who have so far been sceptic about EU driven energy policies could be persuaded to develop a positive narrative for energy efficiency. Such a process should be sufficiently reflected by e.g. the Concerted Action and in EU research programmes like Horizon 2020.

Better communication and higher effectiveness of energy efficiency policies

It must be acknowledged that energy savings with the related terminology and methodology can be a rather complex matter. Policy instruments to a certain extent must take into account this complexity (e.g. for target setting, quantification of savings, monitoring and verification). On the other hand, business stakeholders (e.g. companies dealing with EE) regard the need of upfront information as transaction cost. I.e. the higher the complexity of a program, the lower they will rank its attractiveness for supporting a profitable business. This can lead to the dilemma that, together with frequent changes of terms and conditions, EE programs are not used by the target group. At the side of policy makers, this effect can lead to the perception that there was no need for EE support policies, and programs are abandoned instead of improved.

Thus, there is a need to put more focus to the **translation** of complex methodologies and terminologies **into easily applicable and reliable, continuous implementation programmes**.

Here, the National Energy Efficiency Action Plans (NEEAPs) and other reporting play an important part, providing information about the quality of explanation of policies and allowing comparisons between the member states. There is also a need for a joint and coherent analysis of potentials, technology roadmaps, transformation pathways and end-points, and scenarios between Member States and the different EU directives. Based on this, policy makers must pay sufficient attention to reducing transaction cost for market actors and create attractive policy packages (i.e. combinations of policy instruments reinforcing each other, e.g. the policy packages recommended by Energy Efficiency Watch 2³). The European Commission could take the lead.

In this sense, it is recommended to include in the compatibility evaluation of national policies with EU directives criteria for the effectiveness of policies such as:

- attractiveness to the target groups,
- streamlined participation,
- sufficient funding to achieve potential,
- awareness of the policy and benefits by the target groups.

Exemptions from EU Directives should be abolished or reduced. National target debates often focus on making the best bargain with exemptions (most notably the exemptions in the EED, cf. below) rather than ambitious energy efficiency policies as a chance for economic prosperity. Further action

³ http://www.energy-efficiency-watch.org/fileadmin/eew_documents/Documents/EEW2/Good_practice_ways_out_of_energy_debt_BROCHURE.pdf

in terms of translating the complexity of directives and clearly defining actions is needed (e.g. the implementation of public procurement, which is still subject to interpretation). A Concerted Action committee could deal with policy coordination and coherence. It could provide concrete advice on how to translate regulation from EED, EPBD, Ecodesign/Labelling and the Renewable Energy Directive into policy measures tailored to their respective target group implying low transaction cost and providing transparency and continuity for building business cases around them.

Fostering innovative business models

One of the general barriers for energy efficiency, continuously observed since EEW1, is a structural conflict of interest with existing business models in the energy sector. Commercial stakeholders making profits on selling energy will not be in favour of cutting their markets by reducing the overall consumption of energy - and mobilize their lobby power accordingly - unless they are provided with a clear route towards alternative business models.

One aim of the EED is to establish an energy service market. Yet, each country follows different routes in implementing such a market. The definition of Energy Service Companies (ESCOs) is kept very wide, and focusses in some cases just on selling energy efficiency products, while the supply side remains unchanged. Current business models of energy suppliers require a fundamental transformation, where companies can capitalise energy savings as core part of their business (e.g. energy performance contracting).

Countries that have been able to develop innovative energy services are for example Denmark, Italy and France, while results in the UK are mixed. In Germany, it is more the suppliers of energy efficient products and materials that are benefitting from the existing subsidy schemes. Well-designed energy efficiency obligations (EEOs) provide opportunities for project developers to identify and commercialise savings potentials that are more difficult to address e.g. under subsidy schemes. EEOs can also provide the structural advantage of creating one single market for savings, instead of tackling savings potentials by a multitude of single measures. EEOs are not necessarily the best option for all countries. But it is recommended that countries revise their policies, fostering innovative energy efficient services, enabling the transition towards business models generating revenues from energy savings, and no longer from selling energy. Also, the creation of 'energy savings networks' has shown good results in many EU countries.

Energy Performance Contracting

Business approaches for energy performance contracting have been around already for two decades. A service provider ensures that ambitious saving measures are implemented at the client's side and thus his or her energy bill is reduced. Part of the money the client saves is paid as a regular fee to the service provider for a determined period. So far, in most countries energy performance contracting finds only a niche market, impeded by administrative and legal barriers. However, there are some good practice examples of how to further encourage this business. Especially the Czech Republic, Sweden and Austria have created advanced markets by declaring Energy Performance Contracting a priority in the energy-efficiency sector (Transparens 2013)⁴. Best practice can be found in an EEO guidebook.

Going along with the above, it is important to create favourable conditions for international energy efficiency service business. So far, each country is developing its own energy services sector. It is not possible, for instance, for a project developer operating under an EEO in his country may not be able to expand to another EU country, as some systems by design give preference to domestic players. In order to realise economies of scale on European level, national schemes should also be made accessible for service providers from other EU countries, e.g. by applying European tendering rules.

⁴ Transparens (2013): D2.1 European EPC Market Overview. Results of the EU-wide market survey.

This does not mean, however, to allow international trade of White Certificates, which would create complex problems of their comparability.

Introducing binding and specific targets and effective financing instruments

To define and measure the aimed effect of any policy, it is essential to have binding and specific targets in place. Therefore, policy measures mentioned in the NEEAPs should always be connected to a specific target, as a breakdown of a specific and binding national and EU targets for final and primary energy consumption. Acceptance for targets in member states can be increased if they are asked to suggest measures with respective targets, which in a bottom up process accumulate to a national target.

Energy efficiency has the potential to become the number one solution for economic recovery in the EU, under the condition that the available money is used in the right way. Structural Funds are a very strong instrument. However, the current handling is too bureaucratic and often problematic. This has led to a paradox situation where there is not a lack of financing options for energy efficiency measures per se, but rather a low absorption capacity of EU funds, especially from the EU-13 countries. To increase this absorption capacity, the following conditions will need to be improved:

- Streamline administrative requirements across all levels (EU, national, regional) and avoid accumulation of rules coming from different level
- Developing information/visibility of financial instruments together with local agents
- Increasing technical assistance to potential project developers and applicants in combination with financial instruments *by mobilising the amount of money earmarked for TA in the structural funds.*

Detailed Recommendations for each Directive

The Energy Efficiency Directive

The Energy Efficiency Watch 3 project has identified only a few examples of significant improvement of National Energy Efficiency Action Plans (cf. EEW3 Country Reports⁵). The review of the EED planned for 2016 is an important opportunity to advance energy efficiency policies in all Member States.

For the review of the EED, it is recommended to:

- Expand the EED's timeframe to 2030, especially Article 7.
- Remove exemptions for phasing-in measures and for counting savings achieved in the past, but include energy used in the transport sector when calculating the Article 7 energy saving target. Almost all Member States have made use of these exemptions. Removing them would increase the delivery of savings to be achieved.⁶
- Provide more verification of the calculation of the target and the energy savings. The use of calculation methods and data is often not fully explained. In particular:
- Provide more harmonisation and verification of the eligibility of measures, materiality and additionality of savings and double counting. This includes in particular additional savings from standards such as building standards, taxation measures and use of price elasticities as well as support measures for renewable energy which are unclear or possibly not eligible. Many Member States might exaggerate the impact of their policies and measures.
- Install robust systems for monitoring, reporting and verification. Measuring needs to be transparent and as standardised as possible.

⁵ to be available at www.energy-efficiency-watch.org from around March 2016

⁶ For further reading see: Coalition for Energy Savings (2015): Implementing the EU Energy Efficiency Directive: Latest analysis of Member State plans for end-use energy savings targets (Article 7). http://energycoalition.eu/sites/default/files/20150316_Coalition-for-Energy-Savings_Updated_Art._7_report.pdf and Ricardo-AEA (2015): Study evaluating the national policy measures and methodologies to implement Article 7 of the Energy Efficiency Directive. <https://ec.europa.eu/energy/sites/ener/files/documents/Final%20Report%20on%20Article%207%20EED.pdf>.

- Further support the removal of market barriers (e.g. further develop financing instruments/initiatives and provisions to support ESCO services related to building renovation and industrial energy efficiency).
- Implement a 3% renovation rate for all public bodies, not only for national governments.
- Consider if state expenditure for energy efficiency policy and its implementation agencies can be exempt from counting to Member States' public debt, as revenues from it to the state budget are often higher than expenditure.
- Overall, discount rates should be revised for the impact assessment.⁷

The Energy Performance of Buildings Directive

Building renovation rates need to be increased, and renovations need to achieve “deep” savings instead of the current focus on maintenance and insufficient measures.

For the review of the EPBD, it is therefore recommended to:

- Strengthen and clarify provisions on renovation of existing buildings (e.g. have a more specific definition of major renovation and the required actions and standards, strengthen provisions on compliance).
- Introduce, in addition to primary energy as currently leading indicator of energy performance,
 - the indicator of CO₂ to reflect climate targets.
 - an energy need indicator to be able to ensure (in parallel to the definition of nearly zero energy buildings) low heating and cooling energy demands of buildings.
- Introduce definition / requirements on renovating existing buildings into definition of nearly zero energy buildings.
- Further develop requirements on energy performance certificates to support their increased acceptance and uptake (e.g. through a stronger connection to support schemes and shaping the Energy performance certificates to include building specific renovation roadmaps towards deep renovation and built on life-cycle costs / cost-optimality instead of short payback times).
- Give more guidance on the definition of nearly zero energy buildings and on how to roll them out in Member States
- Organise a joint EU-wide effort of the Member States to reduce costs of deep renovation, including by coordinating national building renovation roadmaps and streamlining financial incentive schemes provided under the EED.
- Consider introducing one or more measurable and trackable targets to the EPBD (e.g. achievement of (primary) energy and CO₂-savings in 2030/40/50).

The Energy Labelling and Ecodesign Directive

The evaluation of the ELD and ED by the European Commission highlights the revision of the energy label and the lacking speed of market surveillance. It is estimated that 10 – 25% of non-compliance exists in European markets and that 10% of potential energy savings are lost because of this.

Elements to consider for the ED and ELD are:

- Learning from previous experience (institutional memory, sufficient attention to technical standards supporting regulations and available data of sufficient quality) to create high ambition levels for all product groups.
- Pay more attention to energy consumption of products in the regulatory process, rather than energy efficiency to not inadvertently promote larger appliances.

Disclaimer

The sole responsibility for the content of this publication lies with the authors. It does not necessarily reflect the opinion of the European Union. Neither the EACI nor the European Commission are responsible for any use that may be made of the information contained therein. The analysis performed here is based almost exclusively on the information provided in the NEEAPs. Consequently, a low score for any of the criteria analysed could also be the result of a NEEAP lacking detailed information. Furthermore for some countries, national experts were consulted to review the reports. However, an expert was not available for every country and a full analysis of the policies and measures was only possible for a limited number of reports. The purpose of this assessment is not an absolute policy overview among Member States but is focusing on each Member State's individual conditions.

⁷ For further reading see: ECEEE (2015): Evaluating our future. The crucial role of discount rates in European Commission energy system modelling. http://www.eurima.org/uploads/Modules/Mediacentre/ecofys_evaluatingourfuture-final20151019.pdf.