

Changes in applied policy measures on energy savings in EU-countries

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Keywords

energy savings, policy measures, MURE, end-use, ESD, NEEAP, EU policy, European Commission

Abstract

Trends in energy savings policy for households in EU-27 countries have been analysed, based on policy measures available in the MURE-database. It regards the amount and type of policy measures over time, differences between countries, coverage of targeted energy uses, qualitatively estimated impact, etc. The results cover the past period 1990-2007. The National Energy Efficiency Action Plans of EU-27 countries, required by the Energy Service directive of the EC, have been analysed as to the measures chosen by each MS. It regards both saving measures as well as policy measures. The results, obtained as part of the EMEEES-project, cover the period 2008-2016. The results for the past and for the future are compared to see whether changes in policy making have occurred recently. On the one hand the focus is on EU-wide trends and catching-up of new member states. On the other hand the focus is on developments for specific policy measures per country. The comparison will also highlight the role of EU-policy in intensifying the energy savings efforts in European countries.

Introduction

Recently energy use and energy savings have received much more attention due to the increasing evidence on the occurrence of the greenhouse problem. Moreover, the security of supply issue has surfaced again, due to the disruptions in gas supply from Russia to Europe. Finally, the peak-oil discussion

and the very high oil prices in last year have raised doubts about availability of oil in the (near) future.

Energy savings can help to solve the problems mentioned. Actually, up to now energy savings have been the most important factor in decreasing CO₂-emissions and dependence on fossil fuels, much more than extra renewable energy (see [IEA, 2004]). At first these energy savings were due to the very high oil prices at the end of the seventies. After the collapse of oil prices in 1986 the incentive to save energy came from the emerging greenhouse gas problem [Brundtland, 1987]. In most developed countries a large array of policy measures on energy savings were deployed in the nineties.

Although a lot has been accomplished as to energy savings the present situation asks for a much larger contribution. For this contribution we cannot rely on high energy prices as the fast fall of the oil prices in 2008 shows. Therefore, new and/or strengthened policy measures are needed to provide much more energy savings in the coming years. Then the question arises whether this change is already visible in national and EU savings policy. Another question is how EU and national policy interact.

To answer these questions, an analysis has been made of historically applied policy measures in the period up to 2007 in Europe. The MURE database [ISIS] on policy measures was used for this analysis. Due to time constraints the analysis has been restricted to the households sector. For policy measures to be applied in the future, an analysis has been made of the National Energy Efficiency Action Plans (NEEAP) for all EU countries, available at [DG-TREN]. These NEEAPs were drawn up in response to the Energy Services Directive [ESD, 2006]; they contain a more or less comprehensive list of policy meas-

ures on energy savings, to be applied in the period 2008-2016. Here the results for the household sector are presented. The comparison for the period up to 2007 and the period from 2008 on starts with the amount of policy measures, but the main focus is on the chosen (new) types of policy measures. It must be stressed that the analysis does not regard the impact of the policy measures, as not enough information was available for this kind of analysis.

In the next section an overview is given of recently applied policy measures, as available in the 2008 version of the MURE database. The third section gives a short overview of future policy measures in the NEEAPs for EU countries, with a focus on the number of new policy measures. The fourth section compares the results for recent years (MURE) and future years (NEEAP), using a list of new and/or diverging policy measures. In the fifth section special attention is given to the role of the EU as to the strengthening national policy on energy savings. Finally observations are given and conclusions are drawn.

Recent policy measures

MURE DATABASE ON POLICY MEASURES

The MURE database [www.mure2.com] provides an overview of the most important energy efficiency policy measures for EU-27, Croatia and Norway. Per policy measure the following is specified:

- Sector: Households, Industry, Transport, Tertiary and cross-sector.
- Status: completed, ongoing or planned policy measures.
- Period: year of introduction and (for completed policy measures) end year
- Type: legislative/normative, legislative/ informative, financial, fiscal, information/education, co-operative and taxes.
- Semi quantitative impact: low, medium or high impact (expert estimates)
- Other properties: targeted energy users, actors involved, etc.

For each policy measure a detailed description is available which contains, if available, a quantitative impact in terms of energy savings and/or CO₂ emission reduction. The database excludes long term R&D measures, measures to improve supply side efficiency and greenhouse gas reduction measures without a direct link to energy efficiency. All policy measures from 1990 to the current year are available. The following results are described in more detail in [Odyssee/MURE, 2009].

OVERVIEW OF CURRENT POLICY MEASURES FOR HOUSEHOLDS

Figure 1 shows the number and type of policy measures for all EU countries, Norway and Croatia and the EU itself. European countries deploy on average 15 policy measures to stimulate energy efficiency. Germany and the UK have the largest total number of policy measures; Greece and Malta have very few policy measures in the period up to 2006. The high number for the EU is partly due to counting all labels for appliances as separate policy measures.

The policy measure are diverted into the following types:

- legislative/normative (e.g. standards)
- legislative/informative (e.g. mandatory labels)
- financial (e.g. subsidies)
- fiscal (e.g. tax deductions)
- information/education
- co-operative (e.g. voluntary agreements)
- taxes (on energy or CO₂ emissions)

The figure shows very diverse mixes of policy measure types per country. However, some general observations can be made. Legislative and financial measures are very common, while co-operative and tax measures are sparsely applied.

In past years policy measures have been introduced at a varying rate in the EU-27 (see Figure 2). For new member states (NMS) the introduction has increased after more and more countries becoming part of the EU. The EU itself has only started with policy measures from 1995 on. The “dip” around 2004 is mainly caused by the low introduction levels in EU-15 countries in 2004 and 2005.

Household policy measures targeted at dwelling related uses can regard the envelope, boilers, overall heating, ventilation/air-conditioning and lighting (see Figure 3). In the past policy measures on heating were targeted at the envelope (prescribed thickness of insulation) or boiler efficiency separately. Presently performance standards targeting both at the same time are more customary (see overall heating in the Figure). Very few policy measures regard lighting in households.

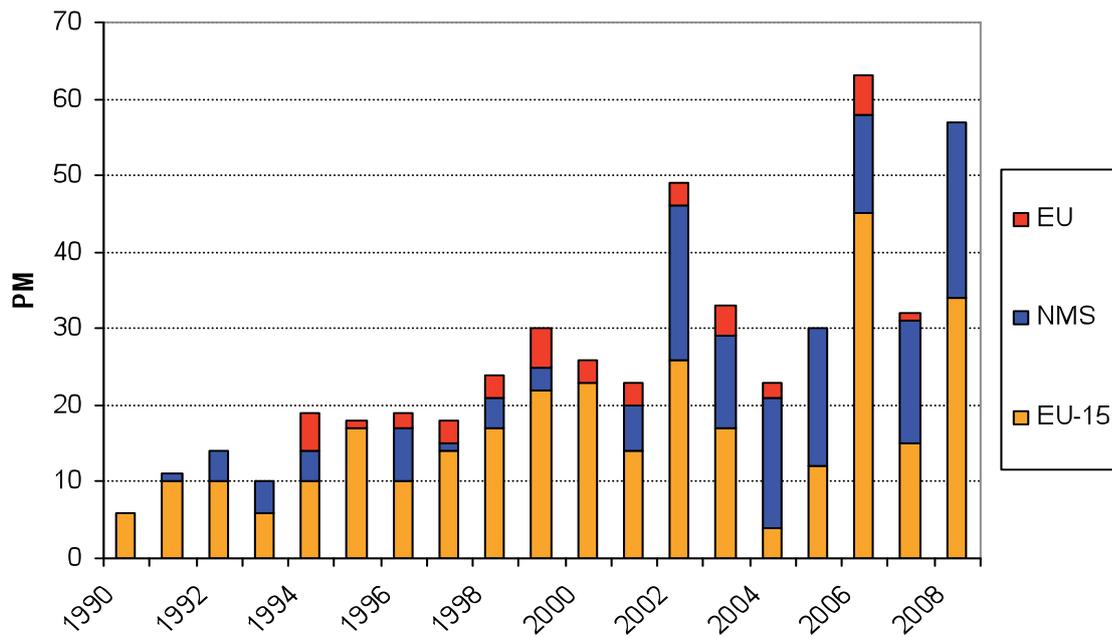
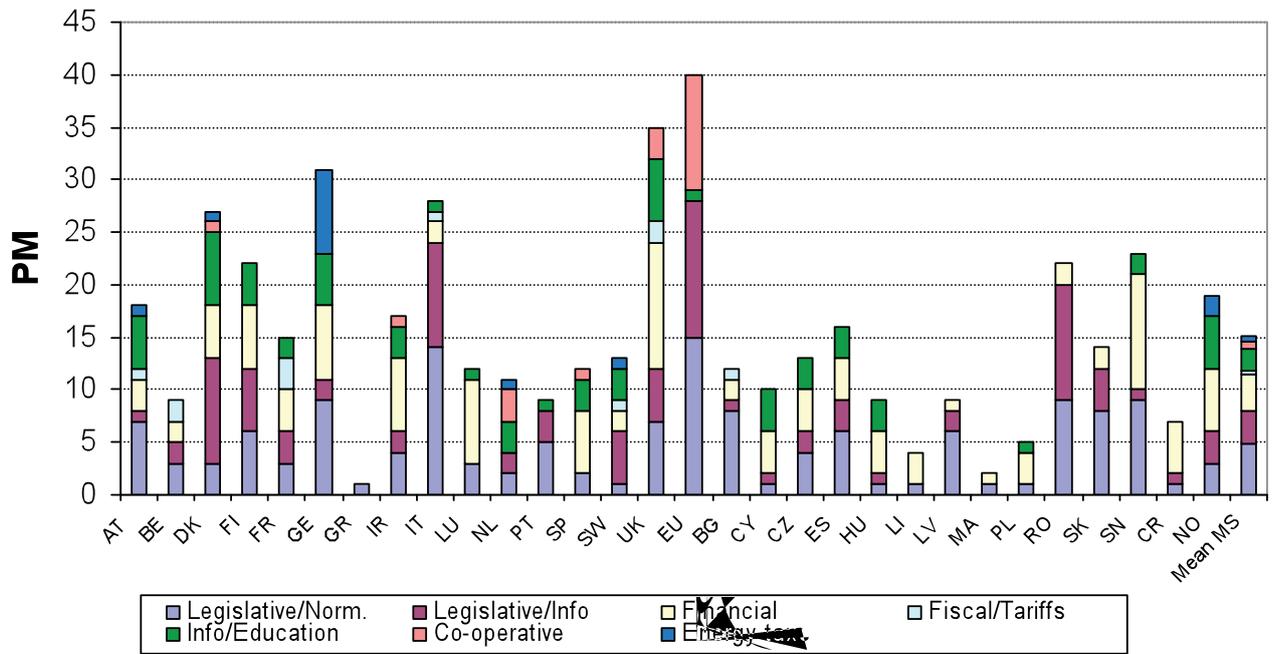
All countries except Cyprus have ongoing policy measures focused at new dwellings, as demanded by the Energy Performance on Buildings directive of the EU. Portugal and Malta do not have policy measures focused at existing dwellings. However, they have policy measures focused at both new and existing dwellings.

Most policy measures focus on the moment of buying more efficient appliances or investing in energy savings. However, there is also a need to influence daily energy use, e.g. by information or by energy taxes. Yet, some countries do not have any such policy measures (Belgium, Lithuania, Malta, Poland and Croatia).

Future policy measures

NATIONAL ENERGY EFFICIENCY ACTION PLANS

The Energy Service Directive [ESD, 2006] has obliged all 27 EU countries to draw up a National Energy Efficiency Action Plan (NEEAP). This plan, for the period 2008-2016, should show how the target of 9% energy savings in 2016 is realised. The 9% target regards energy savings in end-use sectors, excluding energy use that is part of the Emission Trading Scheme (ETS). In the NEEAP the countries should describe so-called Energy Efficiency Improvement (EEI) measures that contribute to the ESD energy savings in 2016. In most cases the EEI measures imply one or more policy measures from government bodies.



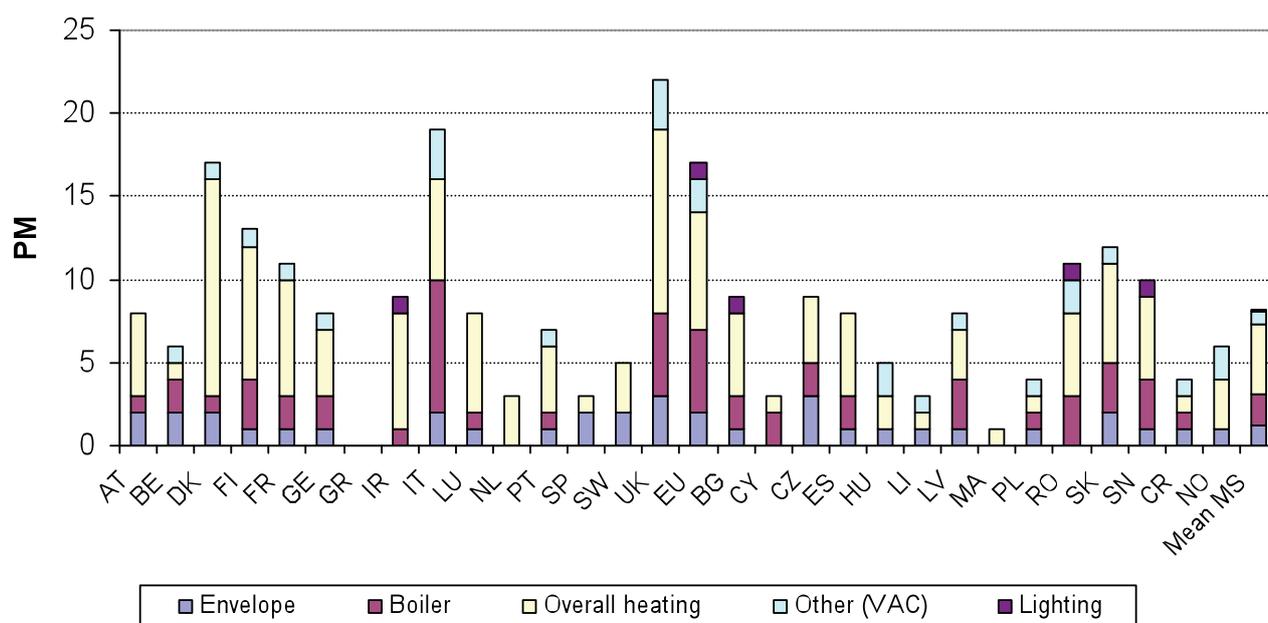


Figure 3. Policy measures targeted at dwelling related uses (2006).

As part of the EMEES project the NEEAPs have been analysed as to targeted energy use and policy measures applied. The results are described in [EMEEES, 2009]. Here results for households are presented. As countries did not in all cases provide useful descriptions of the EEI measures, the analysis does not yield a complete overview of 27 NEEAPs. It must be seen as a first scan of policy measures to be deployed up to 2016. However, this will suffice as the focus is on general changes in applied policy measures and the use of specific new policy measure types.

OVERVIEW OF FUTURE POLICY MEASURES FOR HOUSEHOLDS

Figure 4 shows the number of policy measures that has been found in the NEEAPs per country. Contrary to the earlier MURE overviews no figures are given for the EU itself because it regards national action plans. The full bar represents also policy measures that are already present in the MURE-database for years up to 2007 ("Before 2008"). These "old" policy measures are left aside in this analysis that focuses on newly formulated policy measures. In that case about 11 policy measures are present on average for households (see "Mean MS" to the right, figure 4).

Changes in applied policy measures

CHANGES IN AMOUNT OF POLICY MEASURES (HOUSEHOLDS)

The policy measures in the MURE database (up to 2007) and the NEEAPs (newly formulated from 2008 on) are compared. The average number in the NEEAPs (about 11, see "Mean MS" in Figure 4) is lower than the number based on MURE (about 15, see "Mean MS" in Figure 1). This does not necessarily mean that the policy effort is decreasing in Europe. The new policy measures come on top of the set of existing policy measures that will still contribute in 2016 to the ESD savings target.

For e.g. Lithuania, Poland and Latvia the NEEAP number for future years is much larger than the MURE number for recent years. An explanation could be that these new Member States started late with policy formulation and use the NEEAPs to catch up.

On the other hand countries like Spain and Denmark have relatively few (newly formulated) policy measures in their NEEAP compared to the situation for recent years. A low number of newly formulated policy measures does not necessarily mean lack of ambition. The impact of the few new policy measures, e.g. a White Certificate system, could be substantial. And countries with many existing policy measures will have less need for new policy measures to reach the energy savings needed in 2016 (see for instance the MURE database on Denmark).

NEW POLICY MEASURES (HOUSEHOLDS)

When scanning the MURE database on policy measures per country it proves that the majority of policy measures have been used for years and by most countries. These policy measures constitute standards on insulation and heating system for new dwellings, various policy measures for the energetic upgrading of existing dwellings (using advice and incentives like subsidies, tax rebates and voluntary agreements for the various actors), labels for appliances, information campaigns, etc.

The focus of this analysis is on new and/or diverging policy measures. In table 1 a list of relevant items has been mapped. In some cases the focus is on saving measures or targeted energy use for which various new policy measures are mentioned. E.g. discouragement of incandescent lamps can be realised by a ban (EU policy) or by a levy (Ireland). The new policy measure types are arranged in a number of groups related to targeted energy use or the mechanism to influence energy use.

In the columns the countries that apply the new policy measures are specified. The policy measures are sometimes already specified in the MURE database for years before 2008 (see

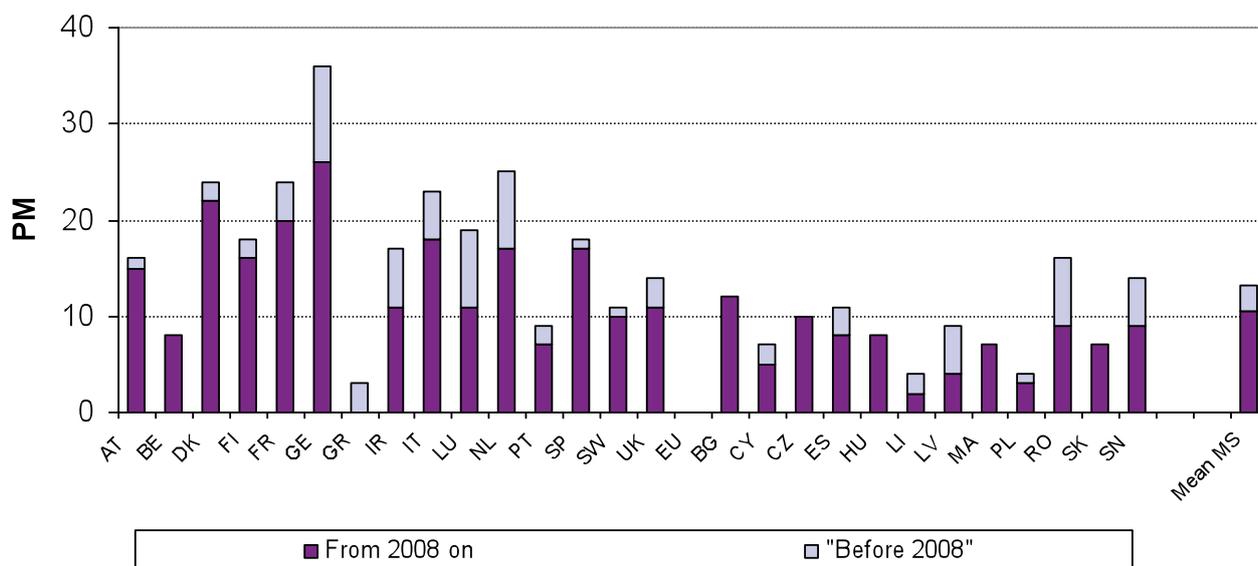


Figure 4. Policy measures for households from the NEEAPS

column “MURE up to 2007”). However, it is shown that the NEEAPs contain much more of these new or diverging policy measures (see “NEEAP from 2008 on”). In Table 1 the items are explained and commented upon.

COMMENTS TO THE NEW/DIVERGING POLICY MEASURE

Above-EU policy on appliances

With the Ecodesign directive (Ecodesign, 2005) as follow up of the label directive the EU will take a new step in stimulating savings on appliances and lighting. However, this will take some time to take effect. Some countries already anticipate on these developments by introducing their own national policy measures. For instance the UK is taking the lead in the practical formulation of Ecodesign minimum efficiency standards.

Removal of incandescent lamp

The minimum efficiency standards for lighting from the Ecodesign directive could practically ban the incandescent lamp. Some countries walk ahead by introducing their own ban or a levy on these lamps.

Above-EU policy on dwellings

Countries face strengthening of their policies on new dwellings due to the obligation in the ESD or the recast of the EPBD. In reaction quite a number of countries introduce policy measures that step-by-step strengthen the performance standards in the future, even to the point of energy-neutral or zero-emission dwellings. Sometimes a voluntary approach is applied first, followed by generally applied standards.

Spatial measures for dwellings

Next to measures on the individual dwelling there are saving measures that regard the placing, spacing and orientation of the dwelling. Placing near a heating grid enables to use waste heat, a sound spacing of dwellings makes district heat more affordable and the radiation from the sun can be better used by an orientation to the south.

Space cooling

Presently the heat loss of dwellings gets all attention. However, as climate will warm up the cooling of dwellings in summer will become more important. Only a few countries (Austria and Sweden) have introduced policy measures that explicitly account for this problem and try to minimise space cooling needs.

Removal of single glazing windows

Double glazing has become more and more the standard glazing and prices hardly differ due to the low volume of single glazing produced. Therefore some countries take the next logical step and ban single glazing from the market.

Certificates for dwellings

The EPBD obliges countries to have certificates on the energy use of (new) dwellings to be rented or sold. However, the information on the certificate does not by itself deliver energy savings. Therefore several countries extend the certificate system in such a way that it will stimulate savings.

Energy poverty

For poor families it is more difficult to save energy due to their often old dwellings that are difficult to upgrade energetically, and their lack of money to buy the most efficient appliances. Therefore some countries have special programs that focus on financing the saving measures for poor families.

Combined heat and power(CHP)

Most measures focus on savings on final energy use including conversion of fuel in a boilers. By combining the production of heat with that of electricity savings on primary energy use can be realised. Some countries will stimulate CHP because this is the goal of the CHP directive of the EU (CHP, 2004).

Table 1. New and/or diverging policy measures in MURE and the NEEAPs. (? = the status of the policy measure is uncertain)

	MURE - up to 2007	NEEAP- from 2008 on
Appliances		
Above-EU policy	AT	BE,GER,UK
Discourage lamp		FR,IRL ,UK
Dwelling		
Above-EU policy (new)		AT,BE,DK,FR,GER,IRL,ITA,LUX,SK,UK
Spacing of dwellings		AT,IRL
Space cooling		AT,SWE
Ban on single glazing		FR
Certificates dwellings	ITA,SK,UK	AT,GER,HUN,IRL,LV,NL,PL,RO,SWE
Energy poverty	IRL,NL,UK	SLO
Supply		
CHP		AT,IRL,MAL,SWE,UK
District heating	AT,DK	AT,GRE,NL
Substitution(oil/electr.)	FI,SWE	FI,GER,GRE
Wood	FI,FR,SWE	ITA
Mandatory solar	GRE?,SPA?	GRE,ITA
Services		
WCS/EEC	BE,FR,ITA,UK	BE,DK,EE?,,FR,PL,UK
ESCO support		FI,GER?,GRE,IRL,ITA,LT,RO,SWE
Energy services		CZ
Control		
Smart meters	IRL	AT,DK,GER,GRE,IRL,MAL,UK
Maintenance		CY
Compliance		DK,SK, UK
Energy check	GER	AT,UK
Mandatory audits		CZ
General incentives		
Tax on energy/CO2	AT,DK,GER,NL,SLO,SWE	BE,FI,GER,IRL?,LV,SWE?,UK
Fund/credit (international)	BG	BG,LV,LT,,MAL,NL,RO,SK

District heating

The same reasoning as for CHP is valid for district heating. Despite the large potentials only a few countries are active in this field.

Substitution between energy carriers

Substitution can lead to energy savings, e.g. if coal or oil stoves with a low conversion efficiency are replaced by gas system with a higher efficiency. Replacement of electricity for direct (resistance) heating, with its large conversion losses in power stations, also saves energy. Apart from energy savings the security of supply is often another reason for substitution.

Use of wood

The use of biomass is not a saving measure in itself, but it saves fossil energy and limits CO₂ emissions. In some countries wood is used still in the old fashioned way in stoves. However, some countries re-introduce wood in a modern comfortable way.

Mandatory solar

Solar boilers or PV-cells are not a saving measure in itself but can save fossil fuels. Because these options are quite costly a voluntary approach, with some subsidy, will not deliver much effect. Some countries use a more pressing approach, e.g. coupling solar devices to getting a license to build the house.

WCS or EEC

A White Certificate System (WCS) obliges energy distribution companies to save energy at their clients. They have to prove the savings by showing certificates that represent savings. They can earn the certificates themselves or buy them from other parties. WCS systems are currently applied by France and Italy. An Energy Efficiency Commitment (EEC) system, without tradable savings, is present in Belgium (Flanders) and the UK. A number of other countries will start with such systems as well, although it is not always clear how robust the plans are.

ESCO support

Energy Service Companies (ESCO) save energy at the place of an energy user in return for a part of the cost savings. Often they arrange the financing of the saving measures as well. In order to create a market for ESCOs, as demanded by the ESD, some countries will take action in the field of legislation (level playing field) or creating a market.

Energy services

ESCOs provide energy services but not all energy services come from ESCOs. Other parties, such as distribution companies, plumbers or kitchen sellers, could supply both the systems and the energy to run them. Despite the large focus of the ESD on energy services very few countries propose policy measures to provide them.

Smart meters

Smart meters are electronic devices that measure continuously the power and energy used. The difference with standard meters is that they can communicate the results to the distribution company and to the user. Electricity companies can use the results for load management. If users see their daily use it is expected that they will save energy. If the readings are combined with information on saving possibilities the savings could be even larger. Already many countries have a policy on introducing the smart meters which is strongly stimulated by the EU.

Maintenance

In order to realise the potential savings of efficient systems maintenance is necessary. However, most policy measures focus on the investment phase and not on the utilization phase. Therefore some countries propose specific policy measures on good maintenance.

Compliance

With regulation getting more strict and costly, e.g. for new dwellings, there is a risk that prescriptions are not fully followed. Therefore compliance will become an issue in future years. Only a few countries have taken action on compliance for building regulations (Denmark and UK) or labelling (Slovakia).

Energy check

In order to be able to take saving measures energy users should know their possibilities to save. Audits, applied in large industry, are too costly. Therefore there is need for rather simple audits. However, do-it-yourself calculation schemes on internet might impose too much barriers for most households. Therefore an individual advice should be offered almost free of charge. A few countries try to apply such a system.

Mandatory audits

For large complexes of (rented) dwellings an more elaborate audit can be done. However, all kind of barriers will prevent landlords from taking action. Only one country solves this problem by making the audit obligatory.

Taxes on energy or CO₂

Very few countries presently deploy such energy taxes that they really influence energy use, as has already been observed in the section on present policy measures. From the NEEAPS it proves that some countries plan to introduce (extra) energy taxes on household energy use. In case of an ecological tax reform the tax income replaces taxes on labour, thereby increasing the competitiveness of companies. However, for the few cases with a tax the height generally remains very modest.

Energy fund

Another new policy measure type is a revolving fund for energy efficiency project where the cost savings are invested again in new projects. Again a number of countries, often in new Member States, intend to introduce such a fund.

SOME OVERALL TRENDS FOR NEW POLICY MEASURES

In the field of standards for new dwellings many countries take own action to strengthen the energy performance standard. Often the goal changes from minimum energy use to minimum or zero CO₂ emissions, where it is unknown which part is due to savings and which part to renewable sources.

For existing dwellings countries take extra action to increase the effect of certificates because on their own they probably do not deliver energy savings.

It is often not clear how the supply items (CHP, fuel substitution, renewables) fit into the ESD and adjacent NEEAPs. That's probably the reason why only few countries pay attention to these items that save fossil energy.

Smart meters are often stimulated in the NEEAPs but other control measures on actual use (maintenance, compliance, energy check) are far less popular, probably because the ESD is not focusing on them.

Financing seems to be a problem for new member states only; therefore measures are concentrated there.

Role of EU policy

EU POLICY

The role of EU policy was already touched upon several times in the preceding sections. In this section this role is analysed more systematically, including the trend in time. Due to time and space constraints the analysis is restricted to the household sector. However, it is believed that the results can be generalized for all end-use excluding the part under emission trading.

EU policy with a direct impact on member states policies and on savings by European energy users is formulated in the form of directives of the European Commission that have to pass the European Parliament and the European Council (Heads of States). The demands in the directives have to be met by the Member States, including transposition of rules into national law. The most important directives are:

- Directive on mandatory labels for appliances [Labels, 1992]
- Energy Performance of Buildings directive [EPBD, 2002]
- Ecodesign requirements of energy using products directive [Ecodesign, 2005]

- Energy Services directive [ESD, 2006]

The introduction of obligatory labels on appliances has stimulated the market for more efficient appliances and thus decreased electricity use for refrigerators, washing machines, cloth dryers, etc.

The EPBD demands that Energy Performance standards are formulated for new and renovated dwellings which should be regularly updated. Moreover, it demands certificates showing the energy use of all dwellings to be sold or rented. The certificate should stimulate measures to decrease space heating energy use.

The ESD expects that countries will realise 9% energy savings in the period 2008-2016 and facilitates this by stimulating the provision of energy services to energy users, funding schemes, information on daily use with smart meters, etc. Also the obligatory national energy efficiency action plans and evaluations will probably have much influence on the introduction of (new) policy measures by countries.

The Ecodesign directive takes a further step by introducing minimum efficiency standards for a larger array of energy using appliances and systems. Up to 2006 EU policy constituted the directive on mandatory labels only. The EPBD, ESD and Ecodesign directive affect energy savings from 2008 on.

ROLE OF EU POLICY IN THE PAST

EU policy on energy savings has started in the middle of the nineties (see Figure 2). For the period up to 2007 the label directive and the EPBD are the most relevant directives. The Ecodesign directive is in the phase of formulating EU standards per device, and the first check on ESD accomplishments by the Member States is in 2011. The EU influence on national energy efficiency works through three types of policy measures:

- EU-defined
- EU-follow-up
- EU-related

EU-defined policy measures regard legislation at the European level. There are about 40 EU policy measures on households energy savings (see MURE database). However, only part of these is directly influencing energy savings, for instance in case of agreements between the EU and European manufacturers of electric appliances.

EU-follow-up regards national policy measures that result from transposition of EU-directives into national law. E.g., the labelling of appliances in the shops is forced by national legislation which is in turn a direct result of demands in the Label directive. The same holds true for mandatory energy certificates for dwellings and buildings and the EPBD.

EU-related national policy measures can be seen as an indirect result of EU-policy. For instance, the introduction of smart meters can be seen as a way to meet the ESD obligation to inform the energy users about their energy use. The same is true for information campaigns, in the light of the obligation to raise awareness about the need for energy efficiency. Abolishment of incandescent lamps can be seen as acting ahead of new legislation on basis of the Ecodesign directive.

The national policy measures in the MURE database have been scanned as to their relation with the various EU directives

(see Figure 5). It shows that the amount of policy measures differs substantially between countries. A large part of the differences can be explained by the speed with which countries transpose EU legislation. However, in some cases these policy measures lack because they were thought not to be important for national savings. The large number of EU-defined policy measures (40, not presented to scale) is partly due to the specification of separate EU measures for each type of appliance. The bar to the right for 'Mean MS' shows that on average 5 policy measures per country are a direct or indirect result of EU policy. This is about one-third of all policy measures applied (see Figure 1). The majority of these policy measures regards transposed EU directives.

ROLE OF EU POLICY IN THE FUTURE

The role of EU policy for future policy measures has been analysed on basis of the content of the NEEAPS. As mentioned earlier the analysis was restricted to newly formulated policy measures from 2008 on. These have been scanned as to their connection with EU directives, including the EPBD and the Ecodesign directive. The results are presented in Figure 6, with policy measures divided into:

- EU-follow-up
- EU-related.

With regard to the number of policy measures per country it can be observed that the differences between countries are smaller than for recent years (see Figure 5). The few strongly diverging cases regard countries for which the NEEAP does not specify new policy measures attached to EU directives. For the EU itself no data are shown because there is no EU NEEAP.

On average about 4 policy measures originate from EU policy, or more than one-third of the (new) policy measures in the NEEAPs (see "Mean MS" for "From 2008 on" in Figure 4). Almost the same ratio was found earlier for on recent years based on MURE data. This could be interpreted as a "not increasing EU influence on national savings (policy)". However, if countries transpose EU legislation fast into national policy measures, these policy measures will be part of the MURE set for recent years. If there is a slow transposition the national policy measures due to EU policy will be part of the future policy measures based on the NEEAPs.

Thus, the ratio future/NEEAP and recent/MURE will be dependent on the chosen demarcation year 2008. On the other hand, the year 2008 with NEEAPs starting could be a watershed year as to the effort to stimulate energy savings. Given this reasoning it seems not very plausible that EU policy either loses ground or takes over national savings policy. The best guess is that EU policy has a firm and continuous influence on national policies on savings.

Observations and conclusions

The overview of policy measures for recent years, based on the MURE database, shows very diverse mixes of policy measure types per country. However, some general conclusions can be made. Legislative measures, such as mandatory labels and standards for new dwellings, and financial measures, such as subsidies of tax rebates, are very common. On the other hand

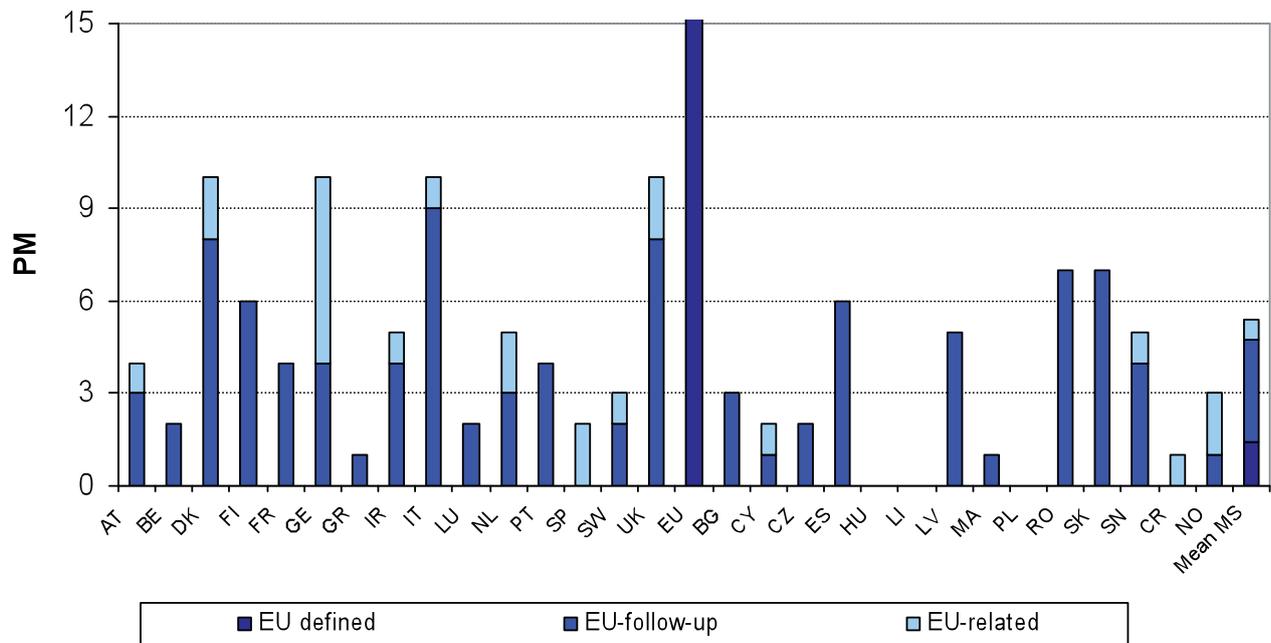


Figure 5. Present national policy measures in relation to EU policy (Households).

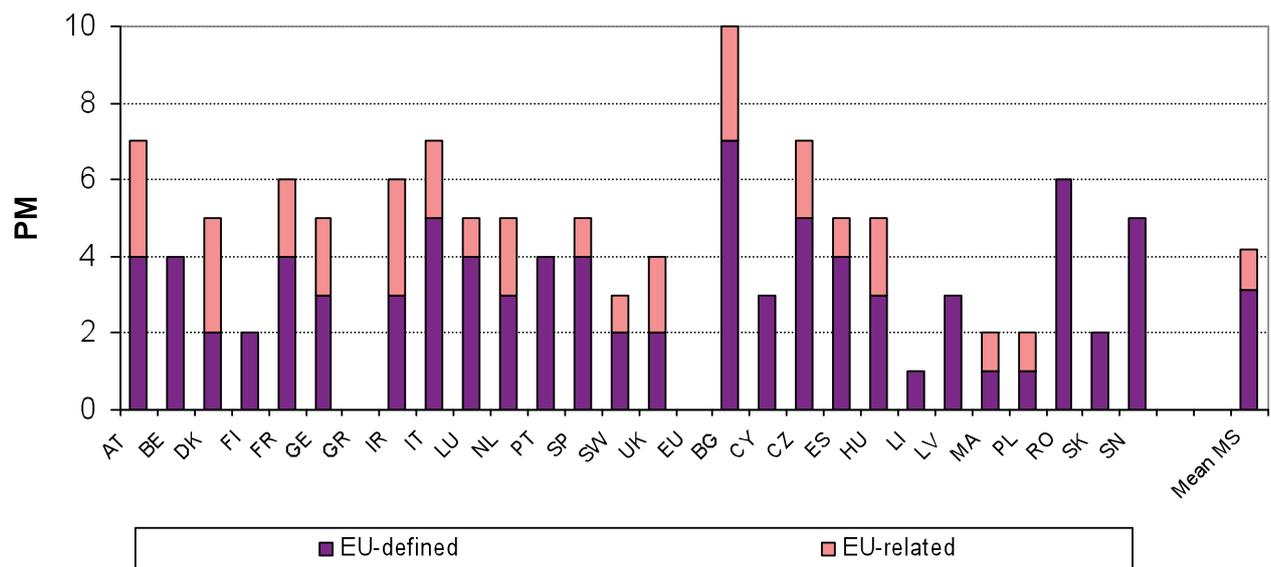


Figure 6. Future national policy measures in relation to EU policy (Households)

co-operative measures, such as voluntary agreements, and tax measures are sparsely applied.

The introduction of savings policy in time differs as well. The EU itself has only started with policy measures from 1995 on. For new member states (NMS) the introduction has increased strongly after becoming part of the EU.

The overview of future policy measures is based on an analysis of the National Energy Efficiency Action Plans (NEEAP) per country, set up due to the Energy Service Directive. Not in all cases the 27 EU countries provide useful descriptions of the policy measures.

Part of the policy measures in the NEEAPs were introduced in the years up to 2007. These “old” policy measures have been

left aside in the analysis that focuses on newly formulated policy measures

The average number of future policy measures in the NEEAPs (newly formulated from 2008 on) is somewhat lower than the number for recent years based on MURE. However, this does not have to mean that the effort is decreasing as most “old” policy measures will keep contributing to future energy savings.

For some countries (mostly new Member States) there are much more future measures, while for other countries (often EU-15 countries) there are more policy measures for recent years. An explanation could be that these new Member States started late with policy formulation and use the NEEAPs to catch up.

The majority of policy measures present in the MURE database and NEEAPs has been used for years and by most countries. The focus of this analysis has been on a list of new and/or diverging policy measures.

These new/diverging policy measures are already present for recent years in a small number of countries. However, according to the NEEAPs much more countries will apply these new or diverging policy measures in the future.

Overall, the new policy measures on the list are not chosen by enough countries. In some cases they may offer little savings, or countries have other priorities. But another cause could be a lack of focus in the directives.

The role of EU policy as to national policy on savings has been analysed by looking at policy measures that have a relation with EU directives, such as Labels, EPBD and Ecodesign. It proves that both for recent and for future years about one-third of all national policy measures is connected to EU policy.

The number of policy measures connected to EU directives differs substantially between countries for recent years. An explanation could be the speed with which countries transpose EU legislation into national law. For future years the differences between countries (for newly formulated policy measures only) are smaller.

Given the not always assured completeness of the sources, and factors like the speed of transposition of EU legislation, it can be concluded that EU policy has a firm influence on national policies on savings, but this influence is increasing clearly.

Overall it can be concluded that ample examples of new and interesting policy measures are available for many countries that have not applied them so far. However, it was not possible in this analysis to show which of these measures will contribute most to total ESD energy savings.

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Acknowledgements

The results, based on the MURE database, have been obtained in the recent ODYSSEE/MURE project, with assistance of Stefano Faberi (ISIS), Didier Bosseboeuf (ADEME), Bruno Lapillonne (ENERDATA) and Barbara Schломann (ISI-Fraunhofer).

The results, based on the NEEAPs, have been obtained in the EMEEES project, with assistance from Coen Hanschke (ECN Policy Studies) and Stefan Thomas (Wuppertal Institute).