



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



Contract N°: IEE/13/824/SI2.675067

Energy Saving Policies and Energy Efficiency Obligation Scheme

D3.2: Report Workshop on Article 7 of the Energy Efficiency Directive

Project Coordinator: Joint Implementation Network - JIN

Task 3.2 - Leader Organization: Austrian Energy Agency



March 2015

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1 General Aspects ENSPOL

1.1 About ENSPOL

ENSPOL (Energy Saving Policies and Energy Efficiency Obligation Scheme) is an EU-funded project targeting the effective and proper implementation of Article 7 of the Energy Efficiency Directive in all Member States (MS) and beyond. The major objective of ENSPOL is the establishment, revision and implementation of robust Energy Efficiency Obligation Schemes or alternative policy measures in each Member State. At the same time, the project envisages the provision of appropriately refined information and supportive strategic tools to all targeted stakeholders.

The major outputs of ENSPOL can be summarised as follows:

1. Undertake a **robust analysis of the existing and planned EEOs schemes** building on and bringing together previous research and analysis.
2. Undertake a **robust analysis of potential alternative measures or additional policies**, building on and bringing together previous research and analysis.
3. **Develop guidelines for the design, revision and implementation of robust EEOs and alternative measures** that create positive synergies with EEOs in line with the requirement of Art 7 EED, including a process for ensuring the effective engagement of key stakeholders.
4. **Establish observatories at national and EU level and undertake capacity building and training activities in project partner countries.**
5. Create a **web based stakeholder platform** - a one-stop-shop where MS can easily access information and guidance on all issues relating to implementation of Article 7.

The major expected results can be summarised by the following three points:

- **Creation of favourable conditions** for improved implementation of Article 7 in project partner countries leading to robust new schemes and/or alternative measures put in place.
- **Enhancement and strengthening** of the existing schemes and/or alternative policies in partner countries.
- **Ensure the effective engagement** of the wide range of stakeholders with an interest in the implementation of Article 7 and promote broad consultation.

1.2 Objectives of the Workshop

The ENSPOL Workshop on Article 7 of the EED: Energy Efficiency Obligation Schemes (EEOs) and alternative measures was held on the 5th of February 2015 in Brussels, Belgium.

The objective of this workshop was to bring together policy makers and stakeholders from EU Member States (MS) to discuss the implementation of Energy Efficiency Obligation schemes (EEOs) and Alternative Measures delivering Article 7 of the Energy Efficiency Directive (EED).

The following issues were addressed:

- What considerations lead to the choice of a certain implementation option in different Member States? What are the key methodological and policy design features adopted to comply with Article 7 of the Energy Efficiency Directive?
- What are the advantages and disadvantages to both EEOs and alternative measures? What are the next steps to successfully implement Article 7 of the Energy Efficiency Directive?

The results of this workshop will contribute to a better understanding of what works and what does not work in relation to the implementation of the EEOs and alternative measures under Article 7, as well as how to overcome the barriers associated with both approaches in order to reach the required energy savings targets by 2020.

Within the next months of the project, the effective engagement of the broad range of stakeholders with an interest in the implementation of Article 7 will be fostered. One opportunity to enable a wide consultation and knowledge exchange among policy makers and key stakeholders will be given within the EU Observatories. The work of the European Observatory will be based on one meeting per year in Brussels with accompanying actions and ongoing dialogue maintained outside of the meetings via the web based stakeholder platform. Thus, ENSPOL will ensure that opinions and views of all interested parties are taken into account and the pros and cons of the different options available are reflected in an objective manner.

Workshop Material: The workshop programme is available in Annex 1 and all presentations are available for download on <http://enspol.eu/events/workshop-article-7-eed>.

2 General Aspects about the EU Energy Efficiency Directive (EED)

The Commission provided an overview of the implementation status of Article 7 of the EED among the Member States.

The 2012 Energy Efficiency Directive establishes a set of binding measures to help the EU reach its 20% energy efficiency target by 2020. All EU MS are required to use energy more efficiently at all stages of the energy chain from its production to its final consumption. By 5 December 2013, Member States had to notify to the Commission their plans for Article 7. By 30 April 2014, further information could be notified in the NEEAPs. Finally, by 5 June 2014, Member States were obliged to notify national measures transposing Article 7 as part of the general transposition.

Based on the notified Member States' plans, the implementation status has been assessed by the external contractor Ricardo – AEA/CE Delft consortium.

According to this assessment, 17 MS will use an EEO to reach the targeted savings. Thereof 4 MS have indicated to use an EEO as the only measure (BG, DK, LU, and PL). 11 MS will have the alternative approach (BE, CY, CZ, DE, EL, FI, NL, PT, RO, SK, SE) as indicated in Figure 1.

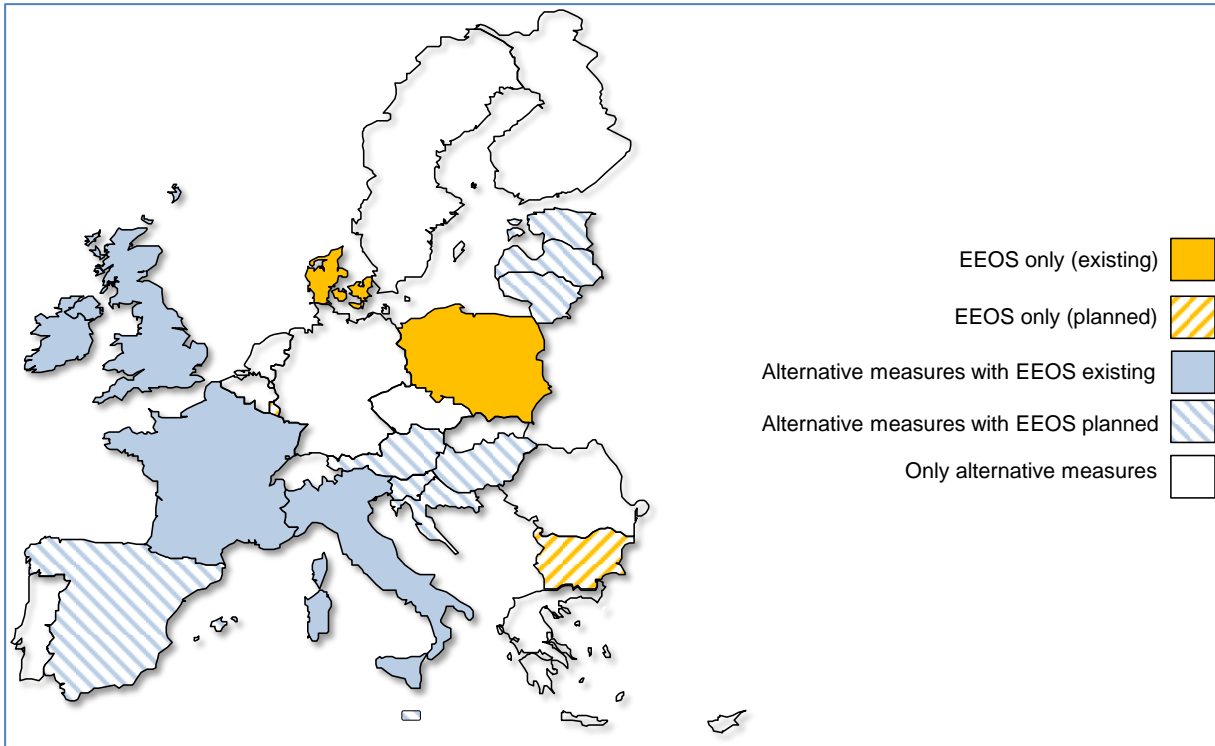


Figure 1: Map of MS with existing and planned EEOs (only those notified) (Source: DG Energy /Ricardo – AEA/ CE Delft consortium)

The following figure shows the breakdown of energy savings by type of policy measure based on notified savings. The study shows that all MS (but one) have excluded transport from the baseline in the calculation of the target. Furthermore, most of the MS have used the exemptions under paragraph 2 of Article 7 (with max cap of 25%). According to this assessment, the sum of the expected savings is slightly higher than the sum of the target.

It has been explored how much of the total energy savings expected from Article 7 will be achieved by EEOs and what share will come from alternative measures. Figure 2 shows the breakdown of energy savings based on notified savings by type of policy measure indicating that 40% of the savings will come from EEOs whereas the rest (60%) will be achieved through alternative measures.

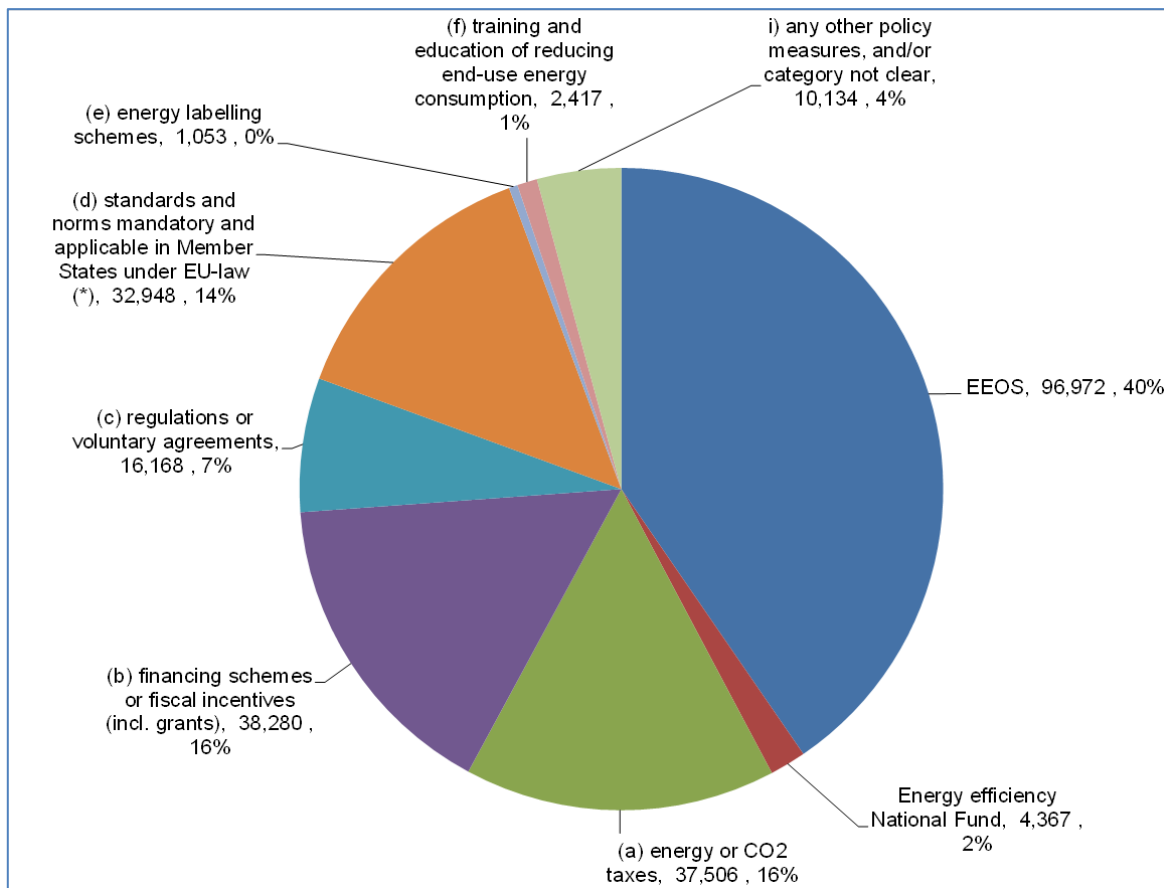


Figure 2: Breakdown of energy savings based on notified savings by type of policy measure (ktoe) (Source: Ricardo – AEA/ CE Delft consortium)

Furthermore, it was examined in which sectors the savings will be achieved. This breakdown to sectors shows that almost half of the savings will be generated in the building sector (48%) followed by cross cutting measures such as taxes, industry as well as the transport sector. One quarter of the savings is not clearly assignable.

The Commission remarks that MS still need to provide further information on various areas in order to further assess whether the proposed policy actions will deliver the aimed savings or not. Areas that should be improved or on which further information from the Member States is needed are the following: the calculation of the target (e.g. deducting own-energy use from the baseline), the eligibility of policy measures (e.g. RES, taxation), methodological aspects, monitoring and verification system as well as penalties.

After the overview given by the Commission, Ricardo-AEA expanded on it and presented further results of the study they have undertaken for the Commission, evaluating the

national policy measures and methodologies to implement Article 7 of the Energy Efficiency Directive.

Some of the main findings of the study:

Concerning the different sectors it is mentioned that MS allow obligated parties to achieve **savings in all sectors**. A big share of the savings is likely to be achieved among the building sector, but still the split across the sectors has not been clearly specified. For most of the new EEOs clearly defined targets are missing.

Concerning the aspect of **banking and borrowing** there seems to be no specific regulations from the MS.

Not all MS seem to have established a **penalty** to be imposed on obligated parties that fail to meet their individual energy saving targets or at least it is not mentioned in their notifications or NEEAPs.

Trading of Energy Savings in the EEO scheme is allowed within some MS. Whereas some only allow bilateral trading (AT, UK, DK), others also allow trading among third parties as well.

Requirements with a **social aim** have only been included in four MS.

The choice of the **obligated parties** varies within the different MS: whereas some put the obligation on energy suppliers (Bulgaria, Luxembourg, Slovenia, and Spain), others put it on distribution companies; only (Lithuania) or MS (Estonia, Malta) put it on both distribution companies and suppliers.

3 Energy Efficiency Obligations Schemes (EEOs)

3.1 Existing and Planned Energy Efficiency Obligation Schemes (EEOs)

3.1.1 Overview of ENSPOL Analysis on Existing and Planned EEOs

For the complete presentation on the ENSPOL analysis on existing and planned EEOs, please visit <http://enspol.eu/events/workshop-article-7-eed>. The ENSPOL report on existing and planned schemes will be available on the ENSPOL website by the end of April 2015.

The good ingredients and pros for EEOs include:

- A continuous monitoring of the scheme and the market.
- An inherent learning process that allows for necessary re-design of the scheme.
- A steady growth of the scope (obligated parties) and the level of the savings targets. This takes into account the learning process necessary for the scheme to grow.
- A focus on buildings (rather homogeneous measures).
- EEOs can support the growth of the ESCO and energy advice market.
- The general awareness regarding energy efficiency is increased.
- A primary focus on low-cost measures (e.g. efficient lighting, efficient boilers, and roof insulation).

Re-design of the EEO. EEOs are often redesigned, which shows the flexibility of the instrument to adapt to changing markets and perceptions. It is important to understand the reasons for these changes as Member States planning to implement an EEO can learn from them. Examples for the re-design of EEOs include the obligation of transport oil suppliers in France as additional obligated parties and the modification of the calculation of energy savings in the Italian scheme.

Challenges in implementing EEOs. Member States implementing an EEO should be aware of the necessary learning process for obligated parties. National differences as regards existing policies and other factors should be taken into account. A single solution for all Member States does not exist.

The main lessons learned from EEOs can be summarised as follows:

- **Keep the rules simple and easy to understand** if you want a scheme with many active parties. A catalogue of standardised actions listing best practices in terms of energy efficiency measures and the deemed savings that can be expected from these measures can be very effective to decrease the complexity of the scheme.
- **The set-up of an EEO usually takes a number of years** due to the following reasons: (1) discussions with relevant stakeholders, (2) learning by the obligated parties of how to implement energy efficiency projects, (3) establishing the relevant monitoring and verification procedures, and (4) establishing the overseeing authority.
- **EEOs have to reflect national peculiarities.** All the EEOs studied have different design details as regards e.g. obligated parties (distributors or retailers; type of energy supplied: electricity, gas, heating oil, district heating, transport fuel), eligible sectors, eligible projects, monitoring and verification, and the fund raising mechanism.
- **EEOs are primarily used to deliver relatively low-cost energy efficiency measures.** This maximises cost-benefit ratios on an individual level but does not support technical innovation or behavioural change. EEOs do not seem to be particularly suited to trigger the diffusion of new generations of energy efficiency products to the market.
- **The concept of additionality** (energy savings that would not have occurred without the EEO) is implemented in different ways by the different Member States. This indicates a lack of comparability of savings reported from the different schemes.

3.2 Experiences with EEOs from Member States

3.2.1 Denmark: An Existing EEO

For the complete presentation on the Danish scheme please visit <http://enspol.eu/events/workshop-article-7-eed>.

The most important findings/statements for the Danish scheme are:

- The DSOs have a strong role in improving energy efficiency and have been actively involved in the EEO from the beginning. This also results in a high commitment of DSOs for the EEO.
- In Denmark the EEO is today perhaps the most important energy efficiency policy instrument. The current savings target is twice the target of what is required in Article 7 of the EED.

- The obligated parties have an active role in finding solutions for determining savings of energy efficiency measures, thus for defining calculation methods.
- Full transparency of costs would drive costs down on the supply side and at the same time up on the demand side. The overall effect of increasing transparency of costs is not clear.
- 60%-70% of the savings in the EEO are delivered in industry where still a lot of unexploited savings potential lies.
- The trade of energy savings plays only a minor role in the Danish EEO.
- Evaluation of the scheme showed 50% of additional savings in industry and 20% in the household sector.

3.2.2 Ireland: A New EEO

For the complete presentation on the Irish scheme please visit <http://enspol.eu/events/workshop-article-7-eed>.

The most important findings/statements for the Irish scheme are:

- Ireland has chosen to adopt the alternative measures approach combining alternative measures with an EEO.
- Top-down targets for individual companies are set based on official statistical data.
- The sub-sectoral targets for the EEO as regards the share of achieved savings are: 20% in the residential sector, 75% in non-residential sectors and 5% in energy poor households.
- Obligated parties can buy themselves out of achieving the energy savings up to a share of 30% of the obligation.
- The methods employed to calculate energy savings are: (1) deemed savings for measures in the residential sector and (2) scaled or measured savings based on IPMVP (or an equivalent methodology) for measures in the non-residential sectors.

3.3 Group Discussions on Policy Aspects of EEOs

3.3.1 Social Issues

The group on social issues was moderated by Tina Fawcett from OUCE - University of Oxford.

3.3.1.1 Basic Considerations on Social Aspects

The Energy Efficiency Directive states that the common framework should allow Member States to include requirements in their national scheme that pursue a social aim, in particular in order to ensure that vulnerable customers have access to the benefits of higher energy efficiency. Member States are encouraged to include requirements with a social aim in the saving obligations they impose fostering a share of energy efficiency measures to be implemented as a priority in households affected by energy poverty. The reason for that is that fuel poverty and energy affordability are becoming increasingly problematic across the EU due to rising energy prices. For low income households it is less likely to afford energy efficiency improvements, unless they receive extra support. On top of that it might be the case that costs are passed back onto household bills undermining the problem and the financial burden imposed on low income households.

3.3.1.2 Main Topics Discussed

After a general introduction, people worked in small groups to discuss a number of topics and worked out a number of aspects of social issues that they would like ENSPOL to investigate and further analyse.

Definition of fuel/energy poverty? How does the definition vary by country, does every country have its own definition of fuel/energy poverty, is there an EU definition? First of all the issue of a clear definition has been raised. In order to be able to tackle the issue one has to know where the fuel poor households are. In principal, energy poverty refers to the lack of access to modern energy services (household access to electricity and clean cooking

facilities, e.g. fuels and stoves that do not cause air pollution in houses)¹. Nevertheless it remains difficult to define disadvantaged groups. Participants argued that this is not only linked to income or energy efficiency of housing equipment. It could also be related to access to low cost fuels, e.g. single home owners may be able to access free biomass or low cost coal for heating – whereas people in multi-family apartments are tied in to higher cost district heating as it is done in the Czech Republic for example.

Discussions also revealed that the aspect of **data sharing** on who is in fuel poverty between government departments is a critical issue. **Who will have access to that data?** Critical lessons learned should be shared and exchange on good policy practice in Member States should be fostered.

EEO suitable to tackle social issues? Effective policy to address social issues? During the discussions, the group raised the question whether the Energy Efficiency Obligation may be the ideal way of delivering upon social objectives, or whether there are other measures that would be more effective. In this context the possible conflict between CO₂ reductions and fuel poverty has been talked over. The main intention of EEOs is the reduction of CO₂. Nevertheless, experience has shown that EEOs can lead to an increase in energy prices affecting low income households. This may lead to clashes between CO₂ reduction and fuel poverty raising the question which of these two should be prioritised.

Furthermore the question on how to distribute costs and benefits has been raised. How to distribute the burden more equally? Should there be different charges for different users? Balance between sector measures in industry – will this have an impact on domestic bill payers?

During the discussions Member States also remarked that **further aspects, like non-energy benefits or unemployment/employment effects of EEOs and alternative measures, should be examined.**

How important are social issues within the design of your EEO? Will this change in the future? Among Member States the importance of including social issues is perceived slightly differently. For some MS as for example France it is a first priority of the French EEO not only

¹ IEA <http://www.iea.org/topics/energypoverty/>

a sub-objective. Other Member States do perceive it as an important factor but have not included it in their EEO yet, whereas others have taken it into consideration and tackle it only within specific areas, e.g. Greece refers to this issue along with the residential measures which are part of the alternative measures and not the EEO. Other countries as Estonia and Luxembourg have not tackled the issue within their schemes as energy poverty is not discussed under the EED. Luxembourg for example supports energy poverty by a mechanism other than the EEOs.

How does your EEOs tackle social issues? Are there any innovative approaches to including social issues? Most MS have not included requirements with a social aim in their schemes. Only a few such as Austria, France, Ireland and the UK have made such provisions. In France, certificates delivered from low income households will receive uplift by a factor of 3. In Austria, all savings achieved at energy poor households are multiplied by a factor of 1.5. During the discussions it has also been raised that market driven schemes make it competitive to add measures to fuel poor household. Hence it should be seen as a driver for energy companies to find cost-effective measures in the right place. Nevertheless, experience showed that those cost-effective measures are not suitable for those households affected by fuel poverty. In Norway, the tax system is used to fund energy efficiency measures (National Fund); they distribute the debts of poor households among other customers who are paying for it. It has been mentioned that looking at options for giving fuel poor household a rebate directly linked to the cost of the scheme through existing mechanisms for rebates could be an option to support them.

What are the advantages and disadvantages of including social issues within your EEO? If an EEO is dealing with social issues it should be obligatory as is the case in the UK and not just voluntary. This will ensure that people with low income/high consumption will be included in the process. Furthermore, it may help to make the scheme more 'acceptable' - a clear political interest. Additionally, it will allow a transfer from subsidies to energy efficiency measures. Despite all the above-mentioned advantages of including social aspects, this may also lead to some disadvantages e.g. costs for energy are a less important issue than household income. Reaching difficult target groups, as fuel poor households, involves high transaction costs. Finally this may lead to lower savings for higher costs. Government needs to compensate with alternative measures.

In conclusion, it is important to find the right balance between the policy objective of energy savings and social aspects. It is important to ensure that the achievement of the social objectives do not hinder the pursuit of the primary objective to achieve energy savings. Nevertheless, MS have to ensure to tackle the issue of fuel poverty and energy affordability which are becoming increasingly problematic due to rising energy prices.

3.3.2 Trade with Certificates

The group on trade with certificates was moderated by Dario Di Santo from FIRE – The Italian Federation for Energy Efficiency.

3.3.2.1 Basic Considerations on Tradable Markets

An EEO can work just as a target imposed to an obligated party (DSO, supplier, end user, etc.). However the obligation can be combined with some flexibility by giving other actors (the so-called voluntary parties) the possibility to get white certificates for implementing energy efficiency projects. By this, voluntary parties can also participate in the scheme.

In principle certificates can then be traded between obligated and voluntary parties through bilateral contracts or on a dedicated platform for the spot market. By including trading, the EEO can become an incentive for the voluntary parties to implement and report energy efficiency measures.

There are several aspects to be taken into account when designing a trading scheme. One of these aspects is the decision on issuing certificates for energy efficiency projects. For example, in France, all certificates are issued at once, while in Italy, they are issued over a period of several years.

Tradable markets usually require or are coupled with the possibility of banking of certificates (some years or all over the duration of the scheme). Banking increases the flexibility of the scheme but also the risk of speculation.

3.3.2.2 Main topics Discussed

Is a tradable market useful? A tradable market can be useful especially if a country wants to promote the ESCO market and there are no DSOs capable of playing an active role in the EEO for some reason. From a market perspective, a tradable market can create better synergies among ESCOs and obligated parties. For smaller players, it is easier to react quicker to market price changes.

Can a tradable market improve the cost effectiveness of the scheme? As long as prices can change, trading can improve the cost-effectiveness of the scheme. However, EEOs prices should remain stable enough to ensure that cash flows generated by energy efficiency projects can be accounted for risk assessment analysis by banks.

The choice to enable trading also depends on the envisaged type of energy efficiency industry. If the goal is to create a market with many players of various sizes and ESCOs, the

issuing of certificates creates a market for them. In Italy, for example, this approach triggered a growth in the ESCOs market. Denmark, on the other hand, did not opt for white certificates, which created certain stability in the market over the years and kept the quality of the energy savings projects at the same level.

What are the costs of a trading scheme? The example of the Italian scheme was mentioned. In Italy the certification scheme costs 0.1 Euro/certificate. At current obligation targets, this results in a total cost of the tradable market of around 600,000-800,000 Euro per year. This amount is roughly 0.1% of the total system costs of the white certificate scheme (including DSO's tariff reimbursement, administrative costs and certification costs of the scheme). It can be followed from the Italian example that the costs of a tradable market are justified provided the EEO targets are high enough.

What about introducing caps or minimum thresholds for market prices? Caps include the level of penalties and an eventual reimbursement for obligated parties. The introduction of thresholds to limit the fluctuations of market prices over time can favour the development of financial tools and the involvement of banks to support ESCOs and end-users in implementing energy efficiency projects. On the other hand such provisions can alter the capability of the system to ensure cost effectiveness. It is thus advisable to constantly monitor the development of the market and price trends that are not in line with certificates supply and demand trends. Italy did not publish the penalty (ceiling) in order to avoid an artificial push of the market price. In the absence of a sufficient supply of certificates (with banking provisions), suppliers tend to keep certificates to sell later, and this raises the price for obligated parties and reduces profitability of ESCOs. To control this either a small penalty on the banked certificates can be introduced, or a cap to the maximum price of the certificates can be set. On the other hand, in case of oversupply the price of the certificates can fall at a very low level, as happened for example in Italy in the first two years. This second issue can be limited by introducing an increase of the target for the next year linked to the amount of excess certificates (provided it doesn't alter the cost of the system too much).

Spot market vs bilateral transactions. A right mix between the two options can be the right solution, since it allows the suppliers of white certificates to find the optimal approach and cover part of the risks. The problem with bilateral contracts is the lack of transparency and that they do not favor activities of small players. In markets with large distributors (like Italy), there is a preference for bilateral contracts, but there is also a spot market. Bilateral contracts in Italy are used for larger transactions since large amounts of certificates can be purchased by signing one contract, instead of passing through many spot market transactions and for intragroup transactions (ESCO and obliged distributor owned by the same group). In this second case of intertwined market players, the price of bilateral

transactions is often lower than the spot market (it can even be zero). For suppliers the main advantage of bilateral contracts is the possibility to sign long-term contracts to ensure a constant cash flow during the year in which certificates are given for a certain project (in Italy from 5 to 10), or the opportunity to obtain financial advantages (like the possibility to sell in advance their future certificates to traders in change of a reduced price). Of course this will be different in countries like France in which the certificates are all issued when the project is presented. The spot market (in Italy used as average for one third of the transactions) is preferred for small transactions and when the supplier is interested in getting the money for the certificates he owns at once, for example in case of favourable market prices. This can prove to be an entry barrier for new players. In France, where there are large suppliers, there is no real spot market and thus parties always know the counterparty. This can be problematic because large players are afraid of 'rumours' in the market (of not carrying out energy savings and preferring certificate trading instead).

Transparency of prices. Transparency is usually more important when the EEO scheme and should also work as an incentive for market operators and end-users. Players need to know price trends in order to develop projects and borrow money from banks. Two important factors for ensuring transparent market prices are:

- Availability of the spot and bilateral market prices, at least as averages and minimum/maximum values.
- Awareness of the target in advance (especially if there are low hanging fruits).
- Qualification of experts to bring savings to the market (as outsourced to externals or developing in stock capacity in obligated parties).

Market structure. Large and small players contribute differently to the trading market. While the former are slower in identifying the energy efficiency measures but quicker in adapting to the market price, the latter (together with ESCOs) can identify energy efficiency measures faster and thus contribute to keeping prices on low levels.

In summary, tradable markets

- are an effective tool to develop an active ESCO market.
- allow profiting at least partially from the theoretical cost-effectiveness of such a mechanism.

3.3.3 How Are EEOs Embedded in Policy Mix?

The group on “How EEOs are embedded in policy mix” was moderated by Elodie Trauchessec from ADEME - Agence de l’Environnement et de la Maîtrise de l’Énergie.

3.3.3.1 Basic Considerations

Most Member States have had energy policies in place for several years already. In this session the main discussion was on how to deal with the implementation of a new system or the combination of existing policies with the EEO. The EEO is a new policy family so it might take more time to develop and implement it as it takes time to establish new schemes. If the EEO is newly combined with an existing policy mix, the complexity and dynamics of existing policies have to be considered and it is recommended to ensure coherence among the different policies.

3.3.3.2 Main Topics Discussed

How can we judge which is the best choice? The main problem dealing with this question is that there is no available data. If there is data the quality is rather low and the quantity is so scarce that one cannot make comparison. It was recommended to check the US systems concerning data collection. In the United States, 25 states adopted EEOs and there are a lot of cost-effectiveness studies. Still the perspectives of these studies vary among each other; hence it is difficult to make a comparison between them and the data/results they produced.

What were the main drivers in setting an EEO? For some MS it was an obligation, e.g. Lithuania and Poland to set an EEO as it was the cheapest choice for the state budget. Some countries already had a green certificates scheme, so they thought it would be easier to also introduce an EEO scheme. Ireland decided to adopt alternative measures combined with an EEO because the EEO was not able to fit the obligation.

Lithuania adopted both alternative measures (for the refurbishment of buildings) and an EEO (on energy distributors) for social and economic reasons (EEO is not easy to accept and promote as it is paid by the energy bills of the final users), in order to use EU financial instruments to reach the target. Ireland has a similar case: they first decided to adopt EEO, but then they opted for alternative measures combined with an EEO (for the same reason).

Some Member States do not consider an EEO as the sole energy efficiency policy instrument as it is economically quite expensive to get money from energy bills. For this reason they chose an integrative approach between EEOs and alternative measures.

How did you integrate EEO in the existing scheme/policies? EEOs have to be embedded in an existing policy mix. Since national circumstances between Member States differ from each other, EEOs are designed quite differently in Member States. In order to integrate an EEO in an existing scheme it is essential to keep it simple and clear. Moreover it is necessary to have a clear implementation structure and monitoring regime. EEOs need to be integrated with other measures in order to work properly (and to avoid problems with savings calculation).

Consistency between EU legislation: Energy efficiency is a part of broader initiatives on achieving EU energy and climate change policy objectives. Hence it is important to establish a link between the different initiatives and foster consistency. When tackling energy efficiency it is necessary to keep in mind other EU legislation dealing with different topics but having an impact on energy – EED, RES directive, CO₂ policies, e.g. the exchange of oil boilers. The intention should be to exclude lock-in effects. The exchange of oil boilers is not eligible as an energy efficiency measure in Austria, since they will be in place for 30 years though they are not seen as a sustainable solution in order to reduce CO₂ emissions. Along with the implementation of the European Directive 2009/28/EC on the promotion of the use of energy from renewable sources, the installation of heating oil boilers is not fostered anymore. Instead heating based on renewable resources as for example solar heat, biomass heating, etc. is fostered.

To conclude, one reason for Member States to implement an EEO is that there is no public funding available for alternative measures and an obligation is a possibility to refund financing. It is recommended to better coordinate different policies and directives avoiding contradictory measures.

3.4 Group Discussions on Technical Aspects of EEOs

3.4.1 Double Counting

The group on double counting was moderated by Gregor Thenius from AEA – Austrian Energy Agency.

3.4.1.1 Basic Considerations on Double Counting

Under the Energy Efficiency Directive, EU countries should set up an energy efficiency obligation scheme. This scheme requires energy companies to achieve yearly energy savings of 1.5% of annual sales to final consumers. In order to reach this target, obligated parties have to carry out measures which help final consumers improve energy efficiency. As an

alternative, or in addition, Member States have the possibility to take other policy measures to achieve energy savings among final costumers. Regardless of the approach chosen to implement Article 7, Article 7(12) specifies that *Member States shall ensure that when the impact of policy measures or individual actions overlaps, no double counting of energy savings takes place.*²

Two main aspects of double counting have been discussed during the group work. Firstly **double counting within one policy measure** and secondly **double counting when combining EEOs and alternative measures**.

3.4.1.2 Main Topics Discussed

How do MS identify double counting? Some Member States have set up or intend to set up a database to identify possible double counting. The aim of these databases is to collect the necessary information on implemented measures in order to enable them to monitor, control and verify energy savings. As far as the UK is concerned, they have a comprehensive database which they use to eliminate double counting. They filter the results by the address field. Whenever double counting is detected it is the supplier's responsibility to sort out the issue. In order to handle such a large amount of data and ensure comparability across measures the database contains drop-down menus and no free text is possible. In fact, the database is a huge data dictionary.

Other Member States (e.g. Ireland) have chosen the electric meter number to avoid double counting. Their approach is that end users only have one assignable meter. Experience from other countries has shown that there is a danger of bypassing, since some end users have more than one meter within one housing unit housing thus making double counting undetectable.

Another chosen solution is that suppliers request a signature from consumers, confirming that he/she gives the saving to one party only. Nevertheless it still happens that some measures are being filed in by more parties (which all have a signature from the costumer). In this case it is handled on a "first come, first serve" basis. Savings are being counted only

²Directive 2012/27/EU

once and attributed to only one actor. How to make this system fair? Who takes credit for the action?

As a consequence it may be recommended to use more than one variable to check against double counting. However, a database cannot be considered a universal solution to eliminate the risk of double counting of energy savings. Nonetheless, a database, even when equipped with functionalities to identify double counting, has to be combined with expert knowledge and staff that assess once again that no single measure that has been through the technical selection process is reported twice.

The discussions have revealed that many Member States have more than one database in place (UK) that contain information on policy measures and (subsidized) energy efficiency measures. It is recommended to consolidate these databases or interlink them so that all the information on implemented energy efficiency measures is stored in one central database with the information being administered by one independent body to avoid double counting.

How to deal with data protection when it comes to data bases? This is a sensible issue especially when several databases are consolidated. Such databases contain a whole lot of sensible data (address, probably also a hint about the income to meet the social requirements within the EED) and functions that allow entry, storage and retrieval of large quantities of information. It is therefore necessary to handle data with great care.

How to make this system fair? Who takes credit for the action? For allocating energy savings to different policy measures, some Member States mentioned that energy savings will only be counted for one policy measure in order to avoid double counting. Some Member States e.g. align savings only to EEOs though quite some share comes from alternative measures. An approach that does not seem to be fair since it dilutes the overall picture. In France 90% of the target will be met by the EEO and the remaining 10% by alternative measures. In order to avoid double counting, France will only notify the savings reached by the EEO.

It is recommended to implement a clear methodology for the avoidance of the potential double counting of the selected measures and a clear procedure to identify whether measures are overlapping or not. Experience shows that it could be useful to use more than one variable to check against double counting.

3.4.2 Materiality & Additionality

The group on materiality and additionality was moderated by Jacob Høgh from danskenergi – the Danish Energy Association.

3.4.2.1 Basic Considerations

The session started with a discussion on different definition of materiality and additionality. It turned out that the understanding of these terms as well as the concrete implementation of them in policy is quite different among Member States. The discussion showed clearly the lack of homogeneity regarding the concepts of additionality and materiality. Several participants underlined the need of having a common definition of both terms as a starting point.

In general materiality means involvement in the action. When looking at additionality, the question asked is, “What would have happened otherwise?” Participants agreed that it is very complicated to measure the energy savings that wouldn’t have been achieved without the implementation of EEOs. Both terms are thus crucial for the determination of the baseline when calculating savings from energy efficiency measures. One of the participants referred to additionality as the capability of the system to promote a change.

Materiality needs to get proved first, after that additionality is checked.

3.4.2.2 Main topics discussed

Determination of additionality and materiality. It turned out that the baseline determination and selection (market average baseline or project specific baseline, dynamic vs. non-dynamic baselines)³ varies significantly from Member State to Member State. Thus a quantification of these concepts leads to different numbers in Member States. With

³ E.g. what level for a boiler change can consumers claim? All savings (baseline is the old boiler) or only the difference between the new boiler and the market average of newly sold boilers? These two options result in a significantly different level of eligible energy savings.

different – non-harmonised – rules between Member States as regards additionality and materiality the energy savings reported under Article 7 are not comparable.

An EEO can also have the role to boost transformation of the market. Additionality could therefore be defined as the requirement to go beyond today's standard by only promoting BAT (best available technologies) in order for an energy efficiency measure to be eligible.

A further step in determining additionality is connected with income levels. One suggestion is to take into account the income level of households. Low income households may exhibit different behaviours to higher income households. In the UK, for example, heating saving measures can only be claimed for low income homes, as it is assumed that higher income homes will replace boilers with the latest models in line with the building code, whereas the poorest households cannot afford to replace broken boilers and therefore use electric heaters instead.

Methods to identify additionality. Two basic methods to evaluate additionality were discussed: (1) surveys made to companies and (2) questionnaires to consumers. Deemed savings can then be reduced by the same percentage as the resulting calculated/observed additionality.

The desirable level of additionality. It is not possible to achieve 100% additionally through the implementation of an EEO. Trying to do that will generate high economic costs as a result. Increasing additionality thus always comes at a cost.

Ways of increasing additionality. Different ways of increasing additionality were discussed. These include (1) giving advice to consumers, (2) giving low subsidies to consumers and (3) promoting incentives at community level. Incentive schemes at community level are expected to promote greater change, because the incentive is more visible. It was agreed that a combination of different measures/incentives (e.g. advice and subsidy) provides the highest level of additionality.

3.4.3 Free Riders

The group on free riders was moderated by Tadeusz Skoczowski from KAPE – The Polish National Energy Conservation Agency.

3.4.3.1 Basic Considerations

A general definition of free riders is “parties that would implement efficiency measures even in the absence of the scheme and take direct advantage of it”. It was commonly agreed in the discussion that it reflects the main concept well. However there are more sophisticated

approaches in practice. The group agreed that in the framework of the EED additionality and free riders are closely related subjects.

The following formula represents a basic approach for taking into account free riders:
Net savings = gross savings – free riders.

3.4.3.2 Main Topics Discussed

Prerequisites in an EEO. It is essential to have an independent evaluator to assess the functioning of the scheme on a regular basis. In Member States with EEOs in place the scheme is evaluated by such an independent body and this brings added value to the system.

Overlaps with additionality. The concepts of free riders and additionality are very similar although the definition of free riders is broader. The term additionality is more technical whereas free riders is more personal.

Acceptable level of free riders. It was discussed what is better for the functioning of the scheme: Accept free riders or exclude the effects of free riders with 100% certainty? Both solutions are not acceptable or feasible from a monitoring point of view so regulators/operators of schemes have to decide what share of free riders is acceptable, and thus how much additionality there should be at least in the scheme.

Identifying free riders. The share of free riders for policy instruments is often unknown. Even though there are statistical methods to measure the effect they are rarely used in the evaluation of policy instruments. Participants concluded that methods to identify free riders based on surveys are unreliable. A practical method might be to look at the historic market and to develop a business-as-usual scenario from that.

Means for reducing free riders. One participant remarked that at least in theory the higher the energy savings target in an EEO, the lower the number of free riders. Another means for reducing the effects of free riders is the introduction of dynamic baselines. The share of free riders also depends on the cost of the energy-efficiency measures. The higher the cost of the eligible measures the fewer free riders. Free riders exist in all kinds of policy measures. The participants of the workshop did not have the feeling that policy instruments differ with regards to the level of free riders.

In conclusion to the discussions it was said that any EEO shall be equipped with a reliable system of measuring energy savings, and only savings of good quality shall be eligible. This ensures the environmental integrity of the EEO scheme. Ideally an EEO should be adjusted for factors as free riders and spill-over effects.

4 Alternative Measures

4.1.1 Overview of ENSPOL Analysis Alternative Measures

For the complete presentation on the ENSPOL analysis on alternative measures in the framework of the EED please visit <http://enspol.eu/events/workshop-article-7-eed>.

. The ENSPOL report on alternative measures in the framework of the EED will be available on the ENSPOL website by the end of April 2015.

Most of Member States rely on alternative measures – either in combination with an EEO or without. Only four Member States opt for an EEO only to comply with Article 7 of the EED.

Among the alternative measures, financial/fiscal schemes dominate (more than half of alternative measures), followed by regulations and agreements and training and education programs.

In most countries, some of the alternative measures proposed for Article 7 adopted appear to be either non-eligible or non-additional.

Most countries chose alternative measures outside the remit of energy companies (e.g. standards, taxation and support for infrastructure and human systems) to meet their energy savings target according to Article 7. The relative roles of the alternative measures need further analysis which will be undertaken later in the ENSPOL project.

4.2 Experiences with Alternative Measures from Member States

4.2.1 Netherlands: Alternatives Only

For the complete presentation on the Dutch approach please visit <http://enspol.eu/events/workshop-article-7-eed>.

The most important findings/statements for the Dutch approach are:

- The Dutch ambition is to achieve savings in final energy consumption of 1.5% p.a. with alternative measures to an EEO.
- Energy savings are calculated on the basis of policy packages and not assigned to individual measures.

- The main instrument to achieve the Dutch energy policy goals is the Energy Agreement for Sustainable Growth.
- The Energy Agreement for Sustainable Growth:
 - has a built in monitoring system which allows for the adoption of additional measures in the event targets are not met.
 - is based on real savings as compared to deemed final energy savings.
- The Dutch system and the implemented systems are based on commitment from social partners and stakeholders putting the common interest above separate interests.

4.2.2 Austria: A Combination of Alternatives and an EEO

For the complete presentation on the Austrian approach please visit <http://enspol.eu/events/workshop-article-7-eed>.

The most important findings/statements for the Austrian approach are:

- Austria opts for a combination of an EEO and alternatives.
- The EEO is expected to deliver roughly half of the remaining energy savings target of Article 7.
- Austria lists a broad range of alternative measures eligible for Article 7 in the NEEAP
- In order to reduce uncertainty about funding and financing and the future savings of alternative measures, Austria decided to introduce an EEO as an additional measure to achieve savings.
- In the EEO energy suppliers (all energy carriers) are the obligated parties.
- Measures in all sectors are eligible.
- 40% of savings have to be achieved in households.
- There is a compensation payment of 20 Cent/kWh instead of reporting measures.
- The main federal support schemes are not eligible for the EEO in order to exclude large scale double-counting. Thus the EEO is expected to be targeted mainly at non-subsidized areas/sectors (large industries, municipalities, transport).

4.2.3 Greece: Alternatives Only

Dimitrios Athanasiou, Ministry of Reconstruction of Production, Environment and Energy

For the complete presentation on the Greek approach please visit <http://enspol.eu/events/workshop-article-7-eed>.

The most important findings/statements for the Greek approach are:

- Greece discussed within working groups whether an EEO or alternative measures should be implemented. It was decided to implement alternative measures only instead of an EEO since there are high administrative costs involved with the implementation of an EEO
- 18 alternative policy measures have been selected to fulfil the requirements under Article 7 of the Energy Efficiency Directive (EED).
- The selected measures vary regarding the targeted end use sectors: The majority of the measures focus on the public and transport sector (totally 11 measures), while other measures will be implemented in the residential sector (3 measures) and tertiary sector (3 measures).
- The majority of them provides financial support and incentives, while the rest of them either promote the conduction of training and educational activities and the implementation of EU standards or are legislative and institutional.
- The Ministry of Environment, Energy and Climate Change is responsible for the planning, implementation and the monitoring of the proposed measures in collaboration with the support of other Ministries.
- The verification, monitoring and control method will be based on conducting inspections from the authority, which is responsible for planning and financing each measure separately.
- Implementation of methodology for the avoidance of the potential double counting of the selected measures.

The main challenges Greece faces:

- Limited awareness of the public, insufficient fundability from end users and the strict evaluation criteria from the banks for borrowing the end users.
- Lack of motivation from public entities for participation and the low technical capability of the municipalities' technical staff.
- Lack of motivation from companies to participate under proposed actions and programmes and uncertainty regarding realized energy savings.
- Continuing administrative complexity, subsequent high transaction costs and delays, funding and liquidity problems from the ESCOs part associated with difficulties in access to finance (i.e. strict evaluation criteria from banks to borrow the ESCOs).

The final two topics have been discussed within the plenary.

4.2.4 Double Counting, Materiality & Additionality

According to the EED, MS are not allowed to count measures that would have happened anyway. Only energy savings that would not have occurred without the alternative measures are eligible. Both terms, materiality and additionality, have led to discussions among the participants. Concerning the aspect of materiality the Member States are in need of further definitions.

Some MS only have one policy measure for the implementation of Article 7 (EEO or one alternative measure), which makes it easier to avoid double counting. Whereas having several policy measures in place makes it more difficult avoiding double counting, especially when using a bottom-up approach. In this case MS have to ensure that when there are overlaps between measures no double counting will occur. The Netherlands stated that they report yearly on energy efficiency savings, taking a sectorial approach thus excluding double counting. Finland as well takes a sectorial approach to define monitoring numbers, and to make sure that no overlaps occur.

4.2.5 Cost Effectiveness of Measures

Cost-effectiveness analysis is used to compare the relative costs and outcomes (effects) of an action, hence it is a good tool to decide which measures to implement. The costs for achieving the energy saving measures include (i) the total administrative costs for the regulator of the scheme (set up, design, implementation and running costs), (ii) the program costs, and (iii) the additional investment costs, which are the costs of investing in a specific energy saving technology related to the costs of the respective standard technology.

Germany will opt for alternative measures. They have had a look at the cost effectiveness of measures but have to remark that it makes no sense to compare these measures against each other since they are dependent on too many different parameters.

Austria remarks that cost effectiveness should not be solely linked to how many kWh can be saved per euro but also to other factors, for example CO₂, health issues, and social considerations. Hence cost optimisation should not be the primary factor for choosing alternative measures.

In contrast in Greece, the cost effectiveness (EUR/kWh) of the measure was the essential indicator to decide whether an EEO or alternative measures should be implemented. It was decided to implement alternative measures only instead of an EEO since there are high

administrative costs involved with the implementation of an EEO and the cost effectiveness is lower with an EEO.

In Ireland the cost to achieve savings for the government is much higher than for the energy suppliers; therefore Ireland is not opting for alternatives only, but rather for a combination with an EEO.

Comparing the benefits of an investment with the costs is a simple method to measure energy efficiency cost-effectiveness. Knowing the costs of the individual measures gives a good basis to choose the most effective measures to achieve the set targets.

5 Conclusions

The ENSPOL workshop on the 5th of February in Brussels brought together EU and national policy makers, energy agencies, energy companies and interest originations in order to discuss various aspects of Article 7 implementation. The larger part of the workshop was dedicated to discussing Energy Efficiency Obligation Schemes (EEOs).

The main insights concerning the design of EEOs are:

- EEOs have to be **embedded in an existing policy mix**; national circumstances between Member States differ, that's why EEOs are designed quite differently in Member States.
- EEOs usually start from rather low savings targets and a limited number of obligated parties and **grow over time** with respect to these two factors.
- Existing EEOs are designed in such a way that they **remain flexible and open for changes**. It is necessary to allow for this learning process in EEOs.
- The rules of the scheme should be simple and easy to understand.

Things to keep in mind for EEOs are:

- They usually **focus on low-cost measures** (low hanging fruits). Other policy instruments seem to be more suited to trigger long-term investments.
- EEOs **can boost the ESCO** and energy advice market.
- Regardless of different concepts a target of 100% of additionality for each energy efficiency measure is only achievable at a very high cost.
- One main driver for implementing EEOs is the **lack of public funding** available for alternative measures and an obligation is a possibility to refund financing.
- It is recommended to **coordinate between different policies** and Directives avoiding contradictory measures.
- A right balance between the policy objective of energy savings and social aspects should be aimed at; the achievement of the social objectives should not hinder the pursuit of the primary objective to achieve energy savings and vice versa the EEO should not worsen the problem of fuel poverty.
- Tradable markets are an effective tool to develop an active ESCO market and allow profiting at least partially from the theoretical cost-effectiveness of such a mechanism.
- The **concept of additionality is implemented in different ways** by the different Member States. This indicates at a lack of comparability of savings reported from the different schemes.

6 Annex

6.1 Annex I – Agenda

Workshop on Article 7 of the Energy Efficiency Directive: Energy Efficiency Obligation Schemes (EEOs) and alternative measures

5 February 2015

Venue: European Commission, Centre Albert Borschette, room AB-4A, rue Froissart 36, 1040 Brussels.

10:30 – 11:00	Registration
11:00 – 11:10	Welcome and short presentation of ENSPOL <i>Vlasis Oikonomou, JIN –Joint Implementation Network</i>
11:10 – 11:30	Overview of the implementation status of Article 7 of the EED among the Member States <i>DG Energy, European Commission</i>
11:30 – 12:25	Existing and Planned Energy Efficiency Obligation Schemes (EEOs)
11:30 – 11:40	Status quo indicating the most important pros and cons of the current design of the EEOs <i>Nele Renders, VITO</i>
11:40 – 11:50	First results of a study evaluating the Article 7 submissions of EU-28 member states commissioned by DG Energy Study <i>Jan Rosenow, Ricardo-AEA</i>
11:50 – 12:15	Experiences from Denmark and Ireland <i>Jacob Høgh, Danish Energy Association</i> <i>Josephine Maguire Joe Durkan, Sustainable Energy Authority of Ireland</i>
12:15 – 13:00	Group Discussions on Policy Aspects of EEOs <i>Group 1: Social Issues (Moderator: Tina Fawcett, OUCE)</i> <i>Group 2: Trade with certificates (Moderator: Dario Di Santo, Fire)</i> <i>Group 3: How embedded in policy mix? (Moderator: Elodie Trauchessec, ADEME)</i>
13:00– 13:45	Lunch Break
13:45– 14:45	Group Discussions on Technical Aspects of EEOs <i>Group 1: Double Counting (Moderator: Gregor Thenius, AEA)</i> <i>Group 2: Materiality & Additionality (Moderator: Jacob Høgh, danskenergi)</i> <i>Group 3: Free Riders (Moderator: Poland, KAPE)</i>
14:45 – 15:30	Moderators report from group discussions to panel
15:30 – 16:15	Alternative measures to EEOs
15:30 – 15:45	Status quo on alternative measures across EU-countries, sectors & eligible policy measures <i>Niki Artemis Spyridaki, UPRC – University of Piraeus Research Center</i>
15:45 – 16:15	Presentations from the Netherlands and Greece implementing alternative measures only as well as Austria combining EEOs with alternative measures. <i>Lucinda Maclagan, RVO – Netherlands Enterprise Agency</i> <i>Gregor Thenius, AEA – Austrian Energy Agency</i> <i>Dimitrios Athanasiou, Ministry of Reconstruction of Production, Environment & Energy</i>
16:15 – 17:00	Group discussion on alternative measures <i>Group 1: Double Counting, Materiality & Additionality (Moderator: JIN)</i> <i>Group 2: Cost Effectiveness of Measures (Moderator: MEECC)</i>
17:00 – 17:30	Considerations leading to the choice of a certain implementation option in different Member States
17:30– 17:45	Wrap-up and Next Steps <i>Vlasis Oikonomou, JIN –Joint Implementation Network</i>

6.2 Annex II – List of Participants

Workshop on Article 7 of the Energy Efficiency Directive: Energy Efficiency Obligation Schemes (EEOs) and alternative measures

5 February 2015

Venue: European Commission, Centre Albert Borschette, room AB-4A, rue Froissart 36, 1040 Brussels.

First Name	Last Name	Organization
Achberger	Susanne	Permanent Representation of Austria to the EU
Adjarova	Liyana	ABEA
ANATO	Serge	EDF
Athanasiou	Dimitrios	Ministry of Environment, Energy and Climate Change
Bach	Peter	Danish Energy Agency
Bayer	Edith	Regulatory Assistance Project
Broad	Will	Department of Energy and Climate Change
Brudl	Franz	WKÖ
Brunson	Aurore	Bruxelles Environnement
Canevari	Claudia	EC
Cardoso	Cristina	Directorate General of Energy and Geology
Carmichael	Emilie	EST
Cavalcanti	Juliana	CERTINENERGY
Creasey	Emma	Energy Saving TRust
Czako	Veronika	European Commission, EASME
deconninck	christian	ATEE
Di Santo	Dario	FIRE
Dragović	Mia	Croatian National energy efficiency authority in Center for monitoring business activities in the energy sector and investments
Duffy	Aileen	Ofgem
Durkan	Joe	SEAI
Eng	Vegard	Norwegian Ministry of Climate and Environment
Fawcett	Tina	University of Oxford
Ferrari	Clausio	Federesco
Georgiev	Zdravko	Association of Bulgarian Energy Agencies - ABEA
Gerbeti	Agime	GSE
Herrmann	Alexandra	Oesterreichs E-Wirtschaft
Hogh	Jacob	DEA
Holmberg	Rurik	Swedish Energy Agency
JEANDEL	Alexandre	GDF SUEZ
Jóźwiak	Jakub	PGE Polish Energy Group
Jurackova	Marcela	Ministry of Industry and Trade
Karasek	Jiri	SEVEn
Kiela-Vilumsone	Lelde	EC
Krivosik	Juraj	SEVEn
Kulevska	Tsvetomira	Sustainable Energy Development Agency

Lino	Nathalie	EDF
Maclagan	Lucinda	Netherlands Enterprise Agency
Maguire	Josephine	SEAI
Mazur	Anna	KAPE
MENAGER	Yann	French Ministry for Energy / General Directorate for Energy and Climate Change
Moorkens	Ils	VITO
Navickaitė	Jolanta	Permanent Representation of Lithuania to the EU
Norvydas	Tadas	SE Energy Agency
Oikonomou	Vlasios	Joint Implementation Network
Oliveira	Carla	Ministère de l'Economie
Osso	Dominique	EDF
Petersone	Andzela	Ministry of Economics of Latvia
Pickl	Nina	Austrian Energy Agency
Pouley	Carolien	Elia
Renders	Nele	VITO
Rimkunaite	Kristina	"Lietuvos energija", UAB
Rosenow	Jan	RICARDO AEA
Salameh	Dalia	Permanent Representation of Austria to the EU
Schonfeld	Janna	European Commission
Seguret	Amelie	BlaBlaCar
Skoczkowski	Tadeusz	Polish National Energy Conservation Agency (KAPE)
Sørli	Martine	Ministry of Petroleum and Energy
Spijker	Eise	Joint Implementation Network
Spyridaki	Niki-Artemis	University of Piraeus Research Center
Tanghe	Tine	VEA, Flemish Energy Agency
Thenius	Gregor	Austrian Energy Agency
Thomas	Johannes	Federal Office for Economic Affairs and Export Control (BAFA)
Tonsgaard	Maria	Dansk Fjernvarme
Trauchessec	Elodie	ADEME
UTZMANN	Frederic	CertiNergy
Väisänen	Heikki	Energy Authority
Valenzano	Davide	GSE
Van Eeckhout	Bram	Eandis cvba
Vega Barbero	Jose Manuel	Stockholm Environment Institute at University of York
Venturini	Veronica	FIRE
Zoboky	Peter	Ministry of National Development