CONCERTED ACTION
ENERGY EFFICIENCY
DIRECTIVE

5th Meeting CA EED

Summary of Proceedings

Date: November 2019

Contents

1 Opening Session

In the course of the fifth meeting of the CA EED in Zagreb over 140 experts, policy makers and implementers gathered together to discuss issues related to the implementation of the EED in Member States. The meeting was designed to give Member States and Norway the opportunity to exchange experiences and learn from each other.

During the opening session, DG ENER and EASME gave an overview of news and updates on current activities.

Following on, each parallel session presented their results on the following topics:

- Energy transformation, transmission and distribution
- Art. 7 implementation 2021-2030
- Article 8 approaches to unresolved issues
- Comprehensive assessment update and role of waste heat utilisation in decarbonisation of heating and cooling

2 Parallel Sessions

The Parallel Sessions of the 5th meeting covered the following topics: Energy transformation, transmission and distribution, Article 7 implementation 2021 – 2030, Article 8 Audits: approaches to unresolved issues, Article 14 Comprehensive Assessments and Annex VIII.

2.1 Energy transformation, transmission and distribution

The aim of the sessions was to explore the potential for energy savings from the reduction of energy losses in generation, transmission and distribution in energy systems. Furthermore, it was important to identify not only the difficulties and barriers in the implementation of energy efficiency measures in the energy transmission and distribution network, but also discuss success stories shared by different Member States.

Session 1 – EED Article 15 the viewpoints from the Commission and the Regulators

The first session started with a presentation and discussion on the EED Article 15 topic from the Commission perspective by a representative from DG ENER. It was reported that there are different recent studies on energy losses in electricity and natural gas networks, where the conclusions are very similar and point out that natural gas losses are much lower than in electricity losses, especially promoted by security issues of natural gas networks. The Commission is preparing, until the end of next year, the common methodology as foreseen in the EED, to encourage network operators to reduce losses, implement a cost-efficient and energy-efficient infrastructure investment programme and properly account for the energy efficiency and flexibility of the grid. In the meantime, all MS are asked to submit input for the stakeholder consultation by DG ENER.

The Council of European Energy Regulators (CEER), presented the views of the Regulators about Article 15 of the EED and the Clean Energy Package (CEP). As the main conclusion, CEER refers that Regulators have already best practice guidelines for incentives for system operators, and these can be used to improve energy efficiency, among other goals.

Session 2 – Member States Good Practices on EED Article 15

The second session started with a presentation by a representative from France on energy efficient transmission and distribution electricity networks in France, based on real examples of smart grids.

Following that, there was a presentation from a representative from VIESGO (a Spanish generation and distribution operator of electricity company) based on a real Spanish example about the dynamic operation of grid capacity which maximizes the integration of renewable energy, avoids grid constraints and reduce grid reinforcement costs.

The last presentation was given by a representative from Netbeheer Nederland (Dutch Association of Grid Operations) about the importance of flex solutions and an approach of system integration in the Dutch electricity networks.

As main key finding and conclusion of both sessions discussions, stands out that the increasing share of renewable energy sources and penetration of electric vehicles create new challenges for the networks, especially in the distribution network and markets. In this context, regulators already have considered how to reduce losses in electricity systems and continue to work on the topic. By the end of the year, CEER will publish a new document about the present and future of energy networks in Europe. In many cases across Europe, the costs associated with losses are passed on to consumers, giving system operators no incentive to reduce network losses. Proper measures should be introduced to incentivize system operators to reduce losses in their grids, or at least maintain them at low levels if they are already efficient. Given the need for high investments in the network for renewable connection reinforcement, MS are looking for sustainable solutions to solve the problem and at the same time decrease energy losses in networks. For example, using the physical limit of power transmission capacity on existing infrastructure, based on cable temperature, or creating platforms where TSO and DSO can share data and information in real time. However, this solution still needs legal support from regulators.

2.2 Article 7 implementation 2021 – 2030

Regarding the coming EED Art. 7 obligation period 2021−2030 Member States' need to plan and notify measures and methodologies as required in the EED Annex V (5) and in the Governance Regulation Annex III. The aim of the

1st session was to get information on policy mixes for achieving Article 7 targets and to get a summary by the Commission of the most common issues regarding the M&V of the measures notified in MS to implement the current EED obligation period 2014−2020 – with a view to minimising eligibility issues for the new period.

A representative from RAP presented in the 1st session possible policies for Article 7 implementation. The theory indicates that there is no silver bullet policy, and a package of policies is the best. Counting on the success of just one policy measure does not seem to be a reliable approach. A combination of policy measures would also lower the risk for MS to face unexpected shortfalls towards the end of an obligation period. On the other hand, the implementation of many policy measures creates costs and a huge administrative burden – and requires an excellent implementation of a monitoring and verification system to avoid double counting. In practice, most MS currently make use of a package of measures approach. There is scope for more innovation in policy approaches and synergies – we need to keep exploring those and sharing experience to get to an optimal mix more quickly. The presenter also shared that carbon tax revenue recycling could perhaps be one possibility to finance energy efficiency measures.

A representative from DG ENER highlighted in their presentation additionality and materiality of the measures. Importance of the principles of additionality and materiality' in the context of implementation of a reliable M&V system, were highlighted. The Commission presents the major key elements and practical examples for a compliant M&V system in the Annex to the Commission Recommendation on Article 7 EED. In the presentation links were also given to some guidance and good practices related to M&V development as well as guidance related to materiality for describing the rationale and intervention logic of the policy measure. The presenter also emphasised the importance that all parties (market actors, ministries, agencies and third parties) responsible for M&V have the same understanding of specific terms, e.g. what are new energy savings, total annual savings and cumulative energy savings.

In the 2nd session information was shared by Spain and Sweden on experiences and lessons learned as well as possible future changes, regarding the measures they have notified for the current EED obligation period 2014−2020 and will also notify for the upcoming obligation period 2021–2030.

A representative from IDAE (Spain) presented success factors of the Spanish obligation scheme, which they will also continue in the upcoming obligation period. In their scheme, obliged parties contribute annually to the national energy efficiency fund. The obligation is based on the final energy sales of the companies.

A representative from Swedish Energy Agency presented the tax model approach applied in Sweden. In Sweden, taxes are the core instrument in Article 7 implementation. However, several other complementary policies are also in place. In the presentation, it was highlighted that using taxation requires intensive work with estimations and simulations. However, Article 7 calculation costs and administration compared to bottom up monitoring for all other policies are low.

In the 2nd session, MS were asked to discuss lessons learned in the implementation of Article 7 during the current obligation period and possible ideas on how to overcome barriers in the upcoming period. Based on the MS input via the post-its, many MS will consider, make changes and improve their M&V. MS that already have EEOS in place also identified room for improvement for the next period. These issues were also partly related to M&V. Alternative measures were considered important to ensure enough savings. The good start with enough delivering measures in the policy mix was highlighted due to the cumulative nature of the Article 7 target. Awareness raising measures targeted to all parties and in several ways, was also highlighted in the discussions. Input during the session was well in line with the working document, which was based on the MS answers to the questionnaire in June 2019.

Based on MS interest, a webinar will be hosted by Ireland to facilitate further discussion related to the topic “How to design and implement taxation measures that run-in combination with an EEO”. Ireland will present the approach they are planning and look for lessons and guidance from other MS.

2.3 Article 8 Audits: approaches to unresolved issues

The group focused on unresolved issues with regard to Article 8. There are two main issues which a large number of MS still regard as an issue; that is the definition of SMEs and the treatment of small multinational facilities. The first session had presentations from MS, followed by a workshop on good practices currently adopted by MS. The second session was dedicated to DG ENER research into the two main issues, progress on the research, and a workshop on possible solutions to resolve the problem.

Session 1 had presentations from Germany, Portugal, Sweden and Spain. Germany and Portugal spoke of their online portals to register and assess whether an energy audit was required by those registering. The major advantage of this approach is that the sites, facilities or organisations are firstly captured and their energy use recorded.

Thresholds are then applied as to whether those registered need an audit or not. The German system encourages registration by offering added value outputs. When the energy audit is uploaded to the system it provides a management summary to the user on their performance, and informs them of relevant support schemes depending on the opportunities entered. The presentation by Sweden highlighted that for them, and possibly many MS, a small number of users account for the vast majority of energy usage. And also that there was typically a 'long tail' of smaller and harder to reach obligated enterprises. Spain highlighted how the federal and local systems are aligned to encourage and track compliance.

This was followed by a workshop on the current good practices in operation across the MS participating in the session. Four main themes arose; tracking systems for registering those who need to report (including the policy benefits of being able to assess data); scope & communication (setting thresholds, SME definitions, and importance of active communication); cost effectiveness (focus on the biggest users and their opportunities, appropriate audit depending on size); and adding value to those who comply (adding value enhances compliance and data quality, feedback on performance helps users).

The second session was joined by representatives from DG ENER and CEPS who are contracted to research the SME/multinational issue. DG ENER outlined that there was a new EU government whose priorities, when established, may affect the Article 8 work programme. For now, DG ENER are firstly asserting there is a problem with the SME definition in the EED. The decision and resolution phase may take 1-2 years or longer. MS were encouraged to engage in the research study, and subsequent engagements on the topic. From session one, it's clear MS prefer solutions that encourage those with the largest potential to implement their opportunities, than solutions resulting in a lot of administration time on identifying and ensuring smaller enterprises comply. The session concluded with a workshop led by CEPS on MS ideas on how the issue could be resolved. The good practices (thresholds, cost appropriateness, focus on large users, and clearer scope definitions amongst others) from session 1 were identified as desired solutions. DG ENER concluded by thanking everyone for their contributions, and stated how important MS feedback and engagement was for him and the project.

2.4 Article 14 Comprehensive Assessments and Annex VIII

With the Annex VIII revision of the EED, the Comprehensive Assessment (CA) of the potential for efficient heating and cooling is more linked with the Energy Union governance regulation, stressed a representative from DG ENER in his presentation of a recently published guideline document on the content of the CA. The CA update is more technology neutral and links to the National Energy and Climate Plans (NECP); it is detailed, covering all 5 dimensions of NECP, and follows its reporting and planning concept (forecast of heating demand and supply for the next 30 years, with more precise information for the next 10 years) but still provides sufficient flexibility to focus on relevant heating and cooling aspects of Member States (MS).

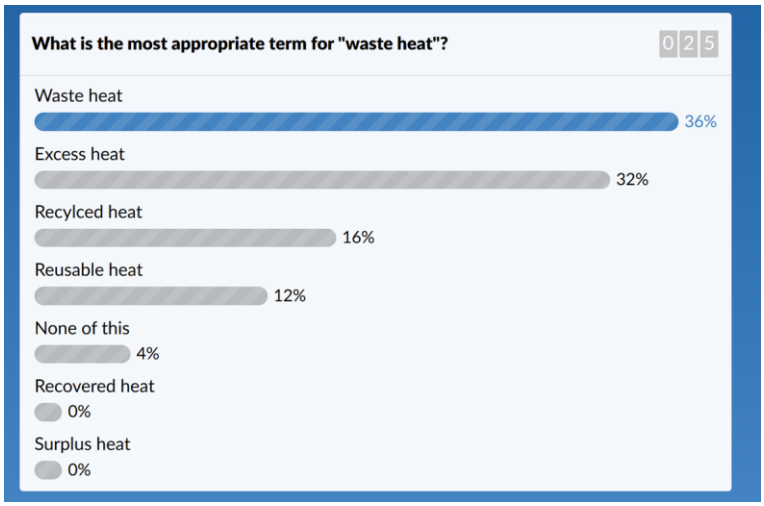
15 EU-supported research projects (14 H2020 projects and 1 LIFE project) presented by a representative from EASME are dealing with planning, technologies and business aspects relevant to the CA and are a useful source of tools and data for CA preparation (heating and cooling mapping and waste heat utilization). A representative from the Hotmaps project provided a detailed presentation of the Hotmaps project, an open source mapping and planning toolbox for strategic heating and cooling planning. Using open source architecture, Hotmaps enables MS planning support by use of existing standard data and additional own data input to improve work with additional proprietary details.

The presentation and dynamic discussion of the definition of waste heat brought more clarity and common understanding to this rather complex topic:

- Heat from combined heat and power (CHP) is not waste heat (unless it involves the use of additional residual low-temperature heat using additional technological solutions).
- There is a difference between the treatment of waste heat in the EED and the RED II: for RED II, only waste heat supplied to district heating and cooling systems is applicable (relevant for an indicative target 1.3% yearly RES increase from Article 23) whereas for EED any waste heat utilization is treated as energy saving.

More guidance is necessary on this topic to enable broader waste heat utilization (internal waste heat supply, supply between companies, supply from data centers, more complex internal waste heat utilization solutions, what is the difference between ambient heat and waste heat, renewable cooling etc.) and to avoid different treatment and reporting on waste heat potential in the CA update. Reporting should be harmonized also with Eurostat standards on waste heat statistics.

As the term waste heat has a certain negative connotation and is often mixed with heat produced from waste, 25 participants responded to an electronic survey (figure below). The majority (36%) voted that ‘waste heat’ is the most appropriate term, followed by ‘excess heat’ (32%).



The confidentiality of data still remains an issue for some MS, but this could be overcome by using data aggregation in reporting. The challenge is the provision of good and reliable data, depending on the needs of each country and the integration of available data from different sources and studies (for example common data and projections for NECP, global warming prediction studies, etc.).

A common statement was also that the potential for district cooling is very low. Efficient cooling can only be achieved by other technologies such as heat pumps and RES cooling technologies.

The group discussion regarding the CA update was very constructive. Participants were divided into three regional groups (Northern, Central, and Eastern and Southern EU), and reached the following key conclusions:

- MS are still preparing for implementation (only a few MS have already started implementation) and it seems the approach is more comprehensive (involvement of more experts and tools), and that they expect better output compared to the first CA (more policy documents on heating and cooling).
- The CA update will be partly or fully outsourced in the majority of MS – mainly due to demanding data collection.
- Integration of RES is a challenge in industry and cities; some issues were raised about RES integration into cost benefit analysis methodology.
- Guidance update on waste heat and RES cooling methodology is necessary.
- Discussion on the usefulness of mapping and assessment of technical potential was raised between some northern MS.

3 Other Parallel Sessions

Other Parallel Sessions were organised to brief participants about developments on specific topics: Draft NECP Assessments, the EPATEE project, the energy efficiency first principle and Energy Efficiency funds - Article 20.

3.1 Draft NECP Assessments

A Croatian representative presented the work towards the final NECP and challenges, namely regional cooperation and elaborating additional measures.

The Commission presented the Commission's assessment of the draft NECPs and highlighted the importance that before the end of the year MS collectively pledge to reach the EU 2030 targets for energy efficiency. On energy efficiency, only a few Member States submitted sufficiently high contributions for 2030 in their draft NECPs. The aggregate assessment shows a substantial ambition gap of 6.2 percentage points for primary energy consumption and 6.0 percentage points for final energy consumption. Thus, the majority of Member States will need to consider additional policy and measures to support higher ambition for energy efficiency.

The Commission explained that the Commission services have also facilitated the exchange of best practices, which can help learning from the experience of other Member States.

In addition, the Commission recalled that in order to allocate the public financing smartly, Member States need to submit the final NECPs as complete and comprehensive as possible, which include an assessment of the investment needs to achieve the national objectives. The more detailed the breakdown of investment needs, the more useful it would be. The Commission highlighted that the completeness of the final NECPs would also be an enabling condition under Governance of the energy sector. Similarly, enabling conditions apply to the fulfilment of key requirements in relation to energy performance of buildings and energy efficiency. The objective it to ensure the prerequisites for the effective and efficient use of Union support from the Cohesion Policy Funds (the ERDF, the ESF+ and the Cohesion Fund).

Finally, the Commission presented the voluntary guiding template for the notification of the methodology for policy measures under Article 7 EED). Member State representatives welcomed the Commission services efforts and highlighted the great practical value.

3.2 EPATEE (H2020 project)

In the first part of the session a representative from the Energy Institute Hrvoje Pozar presented the outcomes and main messages from the H2020 funded EPATEE project (www.epatee.eu). This project developed tools and practical knowledge to make consistent impact evaluation an integral part of the policy cycle. The support tools and activities developed are based on analysis of existing evaluation approaches and are available in the EPATEE online toolbox. The discussion following the presentations clarified that EPATEE focused on existing approaches of ex-post impact evaluation and highlighted the importance of making evaluation an integral part of the policy cycle and the transparent documentation of methods and assumptions used during the evaluation.

In the second part of the session a representative from DG ENER introduced the background of the on-going study on Article 7 EED commissioned by DG ENER. A representative of the consortium presented the overall approach and timelines of the study. The focus of the discussions was on the development of a repository of practical examples and further reading on key issues for the implementation of Article 7 (such as evaluation, design of policy mix, M&V). An informal discussion followed, and it was clarified that the presentation didn't represent the views of the Commission, but rather the views of the consortium doing the study. In addition to the issues discussed during the presentation, some participants raised the issue of the possible decline of energy savings over time, referring to the annexes of the new guidance note. Also, the costs of evaluation programmes were discussed. Other participants discussed the difficulty with evaluating the savings from behavioural measures, including the potential risk of double counting. However, the discussion concluded that evaluation is not an option but a requirement and that better methods need to be developed and implemented in the future.

3.3 Energy efficiency first principle

The Commission presented the principle and reiterated its legislative definition. The Commission highlighted its importance in National Energy and Climate Plans (NECPs). There are several on-going projects financed by Horizon 2020 that will help with conceptualisation of the principle and making it operational (ENEFIRST, sEEnergies and Odyssee-Mure). This is timely, given that DG ENER is working on embedding the principle in its decision-making procedures. The Commission stressed that the principle is not only important for Member States, but now also for the Commission.

The discussion emphasised that the energy efficiency first principle must be used to break silos and be duly taken into account by decision-makers in areas other than energy efficiency. Several participants mentioned helping national coordinators of NECPs fully to appreciate the energy efficiency first principle. Resistance to that can be expected, in particular when it comes to gas, energy infrastructure and security of supply areas.

There was an agreement that we may have to find a better narrative for energy efficiency and the energy efficiency first principle and use synergies with renewables and CO2 savings to our advantage.

Participants agreed that full implementation of the principle will take many years and underlined the need to identify and exchange best practices to help with implementation of the principle. The session was welcome as a good starting point for discussions that will have to be followed-up in the future work of the Concerted Action.

3.4 Energy Efficiency Funds Art. 20

The aim of the session was to give examples of energy efficiency funds and to share experiences on use of funds to support measures with high upfront cost.

A representative from the Croatian Environmental Protection and Energy Efficiency Fund (EPEEF) gave a presentation on how the fund works in Croatia and highlighted the diversity of financing streams going into the fund (dedicated fees, revenues from ETS, EU funding and EEA funding). The fund has financed more than 35000 projects in 15 years and a good practice example was the renovation of a hospital in Split where there was a 56% reduction in energy consumption.

The second presentation was given by a representative from the H2020-project Latvian Building Energy Efficiency Facility (LABEEF). LABEEF is a privately set up fund that finances proprietary Energy Performance Contracts that meet certain criteria. The fund is active only in Latvia for the moment, with the aim to be rolled out in Slovakia, Bulgaria and Poland. The overarching requirements for financing of EPC contracts, within this project, is reduction of energy consumptions of over 50% and repayment of investment through generated savings within 20 years.

Group discussions followed the presentations and they concluded that EE funding takes lot of knowledge, effort, capacity and learning from past experiences.

4 Presentations and Good Practice Factsheets

A number of presentations provided participants with valuable insights into Member States' EED implementations as well as examples from EU projects and information from the European Commission. Presentations are available on the CA EED website.

Energy transformation, transmission and distribution

Provisions of the amended EED (EU) 2018/2022

Energy efficiency and Art. 15 from a Regulator's point of view

Energy efficiency in electric grids in France

Efficient distribution grid operation initiatives

Flexibility & System Integration

Art. 7 implementation 2021 - 2030

Designing effective policy mixes for delivering on Article 7

Success factors of the Spanish obligation scheme and lessons learned for the upcoming period

Art. 8 (Audits) approaches to unresolved issues

Energy audits What's next, what's new?

Issues regarding implementation on Art.8

Article 8 Audits in Portugal

Study on SME definition for Article 8

Example of an audit summary in Germany

Energy Audit Obligation Art. 8 in Sweden

Art. 14 Comprehensive Assessments and Annex VIII

Waste heat and cold RED II

Using Hotmaps for generating input to Article 14

PLANHEAT

Draft NECP Assessments

NECP in Croatia

EPATEE (H2020 project)

EPATEE

Energy efficiency first principle

Energy efficiency first principle

Energy Efficiency Funds Art. 20

Green Buildings: Scalable financial instrument - Latvian Baltic Energy Efficiency Facility

Environmental Protection and Energy Efficiency Fund

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For further information please visit **www.ca-eed.eu** or contact the CA EED Coordinator Lucinda Maclagan at lucinda.maclagan@rvo.nl

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