**MINUTES**

Expert meeting on the Energy Efficiency First (EE1st) principle guidance

24 February 2021, Webex

The objective of the meeting was to discuss the approach and three sections of the draft guidance on the application of the Energy Efficiency First (EE1st) principle. The meeting was attended by more than 150 participants.

Following the welcome from Claudia Canevari, Maciej Grzeszczyk introduced the context and objectives of the meeting.

Peter Sweatman (Climate Strategy) pointed out that PRIMES discount rates for energy efficiency were far above real costs of capital. This has a consequence on how the value of future energy savings and indeed its multiple benefits are determined. Near zero market interest rates for mortgages lead to very different costs and benefits analysis (CBA) result for buildings owners, for example. He asked for clear guidance on discount rates in CBA to Member States (MS), as CBA will be done at MS level by regulatory authorities. MS could see their own cost of debt very clearly by getting an interest rate from the yield curve for government debt of their treasury or central bank. No arbitrary rate should be set, though, at the EU level.

Miguel Herrero (SolarPower Europe) highlighted that the EE1st principle should lead to hydrogen being only used in those hard to abate sectors, where electricity may not be a technically or economically viable energy vector and should help avoid investments into unnecessary hydrogen infrastructure.

Next, ECORYS consultants presented the support study “*Assistance with the analysis to support the implementation of the Efficiency First Principle in decision-making*”. The study was considered as a possibly useful tool, and there were few comments on the scope, and on the distinction between the decision makers and possible feedback loops.

Andreas Hagnell (CEMR) indicated that the "Tool" seemed to be quite an extensive undertaking to compensate for the absence of proper pricing of carbon and energy and the availability of capital on fair terms.

Following the presentation of the draft guidelines by Maciej Grzeszczyk, a discussion on the main sections of the document took place based on the questions that were sent prior to the meeting.

The issues covered were as follows:

* Approach

Michael Villa (SmartEn) suggested expanding the scope to dynamic perspective and looking at electricity market design. The objective should be that energy is consumed in a flexible and efficient way based on the signal received from the system. There should be also incentives to move from CAPEX to OPEX approach. He asked how various elements of the Electricity Directive would be applied in the guidance.

Peter Sweatman (Climate Strategy) was in favour of different manuals for different organisations, as the meaning of the EE1st is different for different organisations / sectors. The objective should be not to build redundant assets, because the EU had a decarbonisation plan assuming reduction of energy demand. The first audience of the guidance are entities responsible for modelling of the demand curves, who should ensure that the baseline scenario was not overestimated (resilience is a separate issue) and that there is avoidance of over build. The second audience should be at ministerial level responsible for investment planning. At this level it is important to look at proper allocation of money to make sure that energy efficiency investments are considered among all transactions. Finally, for the third audience at the asset level the objective is that public policy should do utmost to make sure that private investors take into account EE1st.

Andreas Hagnell (CEMR) mentioned that the EE1 was important, but the definition should be wider – “Principle of GHG-reduction from a systems perspective". He gave a couple of examples: 1) batteries & hydrogen have big inefficiencies, but are still valuable; 2) reducing peak load (kW) is more important than saving energy (kWh); 3) use of more, but secondary (waste) resources (e.g. in district heating).

Oliver Jung (EHPA) indicated the danger that EE1st principle was not applied at all levels. Within a given projected area (sector?), it can be ensured that the principle is applied, but, at the same time, the project could be in competition with more efficient projects. One should follow the decision tree and ensure that the upper level meets the requirement of the principle before going into the details.

Stefan Thomas (Wuppertal Institute) pointed in the chat that there was a long tradition of prioritising energy supply. All the principle aims to achieve is creating a level playing field between energy efficiency and expansion of supply. In addition, if energy efficiency is more cost-effective (including wider benefits), it should be preferred.

Jean-Sébastien Broc (IEECP) clarified that one way to see the implementation of the EE1st principle could be to use an inversed burden of proof. Supply-side options should be demonstrated to be more cost-effective than demand-side options.

Arianna Vitali (Coalition for Energy Savings) agreed that the definition was good. It could be mentioned that cost-effectiveness is to be looked at from the societal perspective. She considered enshrining the EE1st in legislation was a good step, and guidelines were also useful. She suggested looking at how to involve other financial institutions. The role of the EE1st is to remove the barriers. It is important not to favour energy sales, but comfort and energy use.

Guillaume Joly (BEUC) wrote that the EE1st should result in investing in reducing energy demand and making the remaining energy demand as flexible as possible.

Erwin Cornelis (ECEEE) wrote that energy efficiency had two faces: 1) the optimisation of the ratio of output of performance, service or goods to input of (final) energy; 2) the optimisation of the ratio between (final) energy and (primary) energy input. This distinction is not always made and it does matter. The main reason to emphasise energy efficiency is that it is invisible. He said that energy efficiency did not always need to be first. He suggested a list of six options to look at: 1) energy sufficiency (sobriety), meaning the rationalisation of our need for energy services (smaller homes for instance); 2) energy sufficiency continued: selection of alternative, less consuming energy services to cover our needs (terraced houses instead of detached ones for instance); 3) energy efficiency in end-use (well insulated buildings); 4) supply of decarbonised energy (PV, etc...); 5) efficiency in energy conversion (heat pump > cogeneration > condensing boiler > non-condensing boiler); 6) carbon capture (for instance: embedded wood as building material).

Andrea Voigt (EPEE) wrote that the ultimate goal was to achieve carbon neutrality and that meant phasing out fossil fuels and moving to renewable energies. However, this could only be achieved if the demand for energy was reduced from the start (hence EE1st) and if there was enough flexibility in the energy system (which she also labelled as energy efficiency in the broadest sense, or suggested calling it systemic efficiency, in terms of demand response, storage etc.). In other words, there is no first and second, there is great complementarity and parallel action required, if we are serious about carbon neutrality.

Zsuzsanna Pato (RAP) recommended not replicating all energy efficiency policy elements. Whenever discussing end-use sectors, the key thing is to always consider demand side resources as alternative to additional supply. The leverage of EE1st guidance is different for regulated entities and market actors. The latter needs framework rules that make sure that demand side resources are available and can get the value generated by them in terms of price. Cost-benefit assessment that is energy efficiency compatible is important, but a challenging task. The EU does not have to invent it on its own and some examples could be drawn from the US.

Vlasis Oikonomou (IECP) saw the need to influence the recovery plans and just transition plans so that they could take into account the EE1st principle.

Antonio Iliceto (ENTSO-E) advocated more for system efficiency, but not necessary energy efficiency. Sometimes it can be inefficient, but important to give flexibility, which is good for decarbonisation, but not for energy efficiency. What should come first is to look at energy that was wasted. It is important to be careful that solar energy is not wasted. There is a need for a matrix with key performance indicators for waste heat.

Alexandra Tudoroiu (COGEN) also called for the need to take into account system efficiency. She indicated that best practices for the CBA under Article 14 were missing.

Peter Stratman (BNetzA Germany) commented that the CBA for DH and CHP were not beneficial to climate objectives. He pointed that CHP was highly overestimated in terms of its impact on PEC.

* Cost benefit analysis

Peter Sweatman (Climate Strategy) indicated that, when creating a toolkit, high-level guidelines were less relevant. There is the need for a materiality assessment, not necessarily on the level of investment, but guidance should be specific to various groups.

Antonio Iliceto (ENTSO-E) commented that some wider benefits were already automatically included in regular CBAs.

Zsuzsanna Pato (RAP) stressed that it was important whose standpoint it was taken into account. There are also benefits upstream up to generation. CBA should not take perspective of investor, but wider. Importantly, we should not build things, which we would not need in the mid-term.

Arianna Vitali (Coalition for Energy Savings) stressed the need to include energy efficiency in CBA. It is also about monetisation. She noted that the LTRS required quantifying wider benefits, but few MS had done so. As a next step, working on useful methodology of monetising wider benefits needs to be done. This could be integrated with the tool from the study. The Commission should also include it in modelling.

Michael Villa (SmartEn) repeated that the system perspective was needed, which should indicate whether it was necessary to invest in new generation, if demand resources could be a solution. He highlighted that the IA for the electricity directive quantified energy savings from demand-side resources.

Alexandra Tudoriou (COGEN) claimed that the avoided grid costs were not always taken into account and they could really make a difference.

* Sectors covered

Antonio Iliceto (ENTSO-E) identified production, logistic and transport, energy demand as relevant sectors for the guidance. He also indicated that every part of supply chain should be covered. Demand response should be part of infrastructure.

Michael Villa (SmartEn) added that demand response fitted perfectly in the guidance due to the system efficiency approach allowing for more variable RES without need for additional investments. Regarding transport he mentioned that electrification should be pursued in a system efficient way.

Erwin Cornelis (ECEEEE) was not sure if DSOs look at demand response in their projections, as TSOs did. He said that industry (big players) should be included.

Miguel Herrero (SolarPower Europe) pointed that, for system efficiency, there were huge benefits of connecting direct variable RES generation and demand response. Guidelines should also help invest in energy efficient RES hydrogen.

Arianna Vitali (Coalition for Energy Savings) agreed that energy infrastructure planning should be treated with a broader energy system perspective. Transparency and consistency in planning of all networks is needed, regarding evolution of energy demand, GHG objectives, and changes in other networks. To have a system perspective, joint scenarios for infrastructure network, including heat network, are needed. She also suggested that regulators should report how energy efficiency was implemented.

Michael Villa (SmartEn) agreed that NRAs should be key players in implementation and enforcing the principle. Ministries need to collect information and report it to ACER and the EC.

Experts were invited to send additional comments by 1 March 2021.

The guidance is planned for adoption by end of June 2021 together with “Fit for 55 package”. The proposal for the revised EED could also include new article dedicated to EE1st to strengthen its application.