

1st Regional Exchange of Modelling Experts involved in the Development of Integrated National Energy and Climate Plans (NECPs) in Southeast Europe

Building up Modelling Capacity for Integrated Energy and Climate Planning

Meeting minutes

Virtual exchange via MS Teams, 30-Apr-2020, 09:30-12:00 am

Participants

Representatives from Albania, Bosnia and Herzegovina, Kosovo*, Montenegro, North Macedonia - Government stakeholders, local and regional experts; consultants: REKK, SERA and Klimapolitika; the Energy Community Secretariat (ECS) and GIZ.

Introduction

Dubravka Bosnjak (GIZ ORF-EE) and Veit Raisch (GIZ KEEP) made the introductions to the first Regional Exchange of Modelling Experts involved in the NECP process. Purpose of the exchange was to establish contact between national experts involved in the modelling of the NECP development of different partner countries and to facilitate a discussion of modelling approaches, data availability and quality, challenges, best practices, cross-sectoral and regional issues.

Anja Rosenberg (ECS) presented the NECP process in the Energy Community.

Energy and Climate Modelling: Sharing experiences

Agnes Kelemen (Klimapolitika) shared experiences in **Montenegro**. The modelling is being done in with TIMES model in cooperation with MANU and will be finalized in May. It focuses on 3 sectors (electricity, industry, residential buildings) and looks at energy related emissions only. There are 3 scenarios: existing measures, additional measures, "EU ambition scenario" (which is in line with the previous EU 2050 targets).

Aleksander Dedinec presented the experiences in **North Macedonia**. The NECP process is supported by GIZ ORF-EE. The Energy Strategy of the country has been adopted, EE law adopted in February 2020, Law and LTS is ongoing, Energy Law will be changed for the legal basis for NECP (is under public debate), second draft NECP (up to 4th chapter under development). Yesterday experts were informed that the North Macedonian LTS will also provide an outlook to 2050. Had a meeting with ECS in January, fruitful discussions, then a meeting on 3rd March with 5 TWGs and NGOs, stakeholders. The draft has 3 scenarios, impact assessment has been made and presented in April to the TWG. It was decided that only 2 scenarios, reference and green will be covered in the final NECP. CO₂, CH₄, N₂O, PFCs, HFCs are included and all sectors. MARKAL-Macedonia model is used with IPCC methodology using regression analysis. GDP is used as a reference; data has been collected from the UN. Projections on development of population are based on UN data. Fuel prices are from the

World Energy Outlook. CO2 tax will be introduced in both scenarios. Technology and production costs have been also assessed for different fossil and renewable energy technologies. While investment costs might be the same in each country, production cost are country-specific because of different circumstances e.g. wind speed. The first draft of the first 2 chapters has been developed and reviewed by the ministries and international actors, ECS. The draft has been redrafted in accordance with the comments received. Decarbonization targets have been compared with the NDC targets. RES gross final targets have been modeled as well in energy, transport, heating and cooling sectors for both scenarios. For EE both for primary and final energy consumption have been modelled in line with requirements of the directives. In transport -19% by 2030 can be made. In the internal market no targets, but measures have been identified. EU targets have been already achieved for 2020 and 2030. More than 50 PaMs have been defined in a tabular format. By May the final version should be produced.

Laureta Dibra presented the process in **Albania**. The work on the ground has started about a month ago with the support of GIZ and local experts. The international consultancy for non-energy sector modelling has not yet been selected. The energy related emission modelling is being done by Klimapolitika. Dora Csernus from Klimapolitika added, that data gathering is ongoing, quite a lot of data has been received in April. Viktor Racz (REKK) explained that the energy and transport related models are just being built up in TIMES model. In the model CO2, N2O, CH4 gases will be added in the most detailed way as possible. Transport will be split in different modes of transport (buses, cars, high duty vehicles) and according to distances (short/long). Accordingly, further work is needed to differentiate energy use in the residential sector e.g. heating, cooling. Base year – being the year of the Energy Balance to be used to calibrate the model - should be 2017/2018 because of data availability. First results are expected to be presented by July.

Branka Knezevic reported on NECP development in **Bosnia and Herzegovina**. The WG has been formed under the MOFTER in the beginning of last year. 5 TWGs have been formed later on as well with over 90 representatives. The process is supported by GIZ ORF-EE in cooperation with GIZ BiH bilateral projects, UNDP, USAID, WB and other donors. Data has been collected, checked and harmonized. Even though the institutions operated previously independently, now the data is in line. The NEEAP is being drafted. Modelling is being done in a LEAP model. RES support scheme is also being analyzed. The IRENA REMap study is used for the RE part. The NDC, climate action plan 2030, climate adaptation and low emission strategy are also being updated, should be finalized by October 2020. Several meetings have been organized to harmonize different strategies. First NECP draft has been already drafted in line with Governance Regulation. After Covid-19 outbreak, TWGs will be organized to assess draft, determine targets and PaMs. Esad Smajlovic (GIZ) showed the LEAP model used and the different datasets available for the country. Mirza Kusljagic (GIZ ORF-EE expert) added that in BIH there are still conflicting strategies in the energy sector, therefore different scenarios had to be added in the NECP. It was underlined that the regional coordination and the aspects of the regional market are of utmost importance. Feasibility and economic aspects of TPPs will change in line with market expectations and the introduction of carbon pricing. Furthermore, costs for RE are dropping, therefore a RE portfolio is being developed in BIH. The challenge is

the fragmented market in BIH, however. Key aspects of decarbonization are the coal phase out and the RE integration. Other crucial aspect is RES-T, which should also be discussed in detail in the future. As emissions from AFOLU, IPPU and waste are not reflected in LEAP, these need to be added to the LEAP results based on the NDC/ GHG inventory work.

Biljana Cherepnalkoska has explained that Kosovo* has started modelling, in on April 24th the reference scenario has been already presented on demand side in LEAP. The transformation side is under review by the electricity market group, their remarks are awaited by first week of May. Base year is 2015. All sectors are included; however, transport sector is quite demanding. The KS Statistical Agency does not have good data for transport. Residential sector is modelled by bottom-up methodology differentiating heating, cooking, electric appliance incl. lighting, hot water etc. The methodology is in its final phase, however not adopted. Building renovation strategy is under development, therefore it will be used in a later phase for the modelling work. Sabit Gashi, the NECP coordinator added that the process is supported by GIZ ORF-EE and GIZ KEEP project. The first chapter is being drafted already by TWGs. Currently working on the analytical part of the NECP. The second chapter has been started already by some TWGs, however not all of them started. Since there are some strategies lacking (industry and transport), the work is challenging. Biomass for space heating will be a crucial fuel in the future, therefore they are planning a common approach with GIZ and ECS. Introduction of gas is being discussed for balancing needs. Regional aspects (markets, security, etc.) should be better discussed in a later stage. The energy strategy only covers the years until 2026, therefore it has to be updated as well. Regarding the new TPP in XS, there are some challenges on governmental level, which have to be resolved, however the TPP has to be reflected in the plans. It was also added that the energy strategy does not cover all aspects of energy production. Consultants however have been contracted to prepare new forecasts for some areas. These challenges have to be tackled during the production of the NECP. Ms. Abersesha Isufi pointed to the challenges in terms of available information and data when designing policy scenarios. Currently, these scenarios cannot draw from a transport or industry sector development strategy. Similarly, current policies do not cover natural gas or central heating. In addition, there is no data on the consumption of oil products. The latest forecast for energy consumptions for 2015-2024 is outdated by now. Also, the approach for structuring energy products in some statistics is currently refitted.

Discussion

Anja Rosenberg (ECS) responded on some questions. It was explained that the 2030 modelling exercise by the EC has secured additional budget to include national modelling experts in the preparation of the study. Furthermore, the two ongoing EC studies (RES-T and carbon pricing) were already partly presented and comments and suggestions by national experts invited. Results will be shared with CPs. Furthermore, Tibor Schaffhauser (ECS) shared that REDII will be introduced in the EnC next year which will have new rules on biomass. If CPs, especially XS would like to discuss implications of this, the ECS can set up a separate call on the topic. It was also requested from CPs, that if they have already some draft parts of their NECPs ready, please do share them with the ECS in order that the ECS can support the process from the beginning and provide informal comments or suggestions.

It was discussed whether CPs are planning to use the year 1990 as the base year for reflecting their greenhouse gas emissions following the same approach as EU MS. For several CPs it was too early to decide at this stage, since they are still in the data collecting mode. This topic will be taken up in the next exchange then. The sometimes-conflicting targets in CPs in regard to the policy consolidation process were mentioned to remain as a challenge. Participants pointed out that regional integration was crucial for decarbonization. Hydro power might play an important role for balancing and achieving climate targets

MKD explained that sensitivity analysis is very important, therefore it will be done for small hydro power plants. ECS explained that the ECS is currently working on guidelines on small hydro power plants which will be up to public consultations shortly. In that regard, also the various software used in the CP were discussed. It was mentioned that LEAP can export or import data within Excel sheets to embed data from non-energy related sectors. It was emphasized that the regional exchange is also highly relevant when it comes to energy imports and exports among CPs and to consider this for the NECP drafting process and modelling Energy sector projections leverage on MARKAL and Power2Sim software, which account for the regional integration of North Macedonia with other countries including EU MS. Being asked for data collection and verification approaches, MKD pointed out that the calibration of their models for the period 2012-2017 delivered better results than a calibration for one year. In addition, stakeholders were involved in every workshop that was held during the preparation of the Energy Development Strategy, which the current NECP process builds up on. Participants raised further questions on what assumptions to base a longer-term outlook to 2050 on, in particular in terms of assumptions on policy development. As this question could not be discussed sufficiently, it might be taken up again during the next exchange.

Closure

Dubravka Bosnjak and Veit Raisch (GIZ) asked participants to share their ideas via email on topics for the next sessions or bilateral exchanges. Furthermore, underlined that GIZ and ECS are further support the NECP process, therefore please contact us if support is needed. It was also stressed CPs to have bilateral exchanges among them to share experiences. ECS can be also contacted directly for further support.