



Workshop on Regional Energy Interconnectivity Challenges

5 December 2017, Brussels, Belgium

Meeting Report

Summary:

The Workshop on Regional Energy Interconnectivity Challenges took place in Brussels on 5 December 2017. The meeting gathered participants from partner countries, from EU Member States and International Financing Institutions as well as from other European entities.

The meeting is to be seen as a direct response to the Eastern Partnership Summit of 24 November and in the context of working towards the 20 deliverables by 2020 as endorsed at the Summit. One of the deliverables is the reinforcement of energy interconnectivity among Eastern Partner countries and between them and the EU. The task is to identify a pipeline of key regional energy interconnectivity projects in the context of the Eastern Partnership by 2020.

Discussions at the workshop focused on long term infrastructure planning with a regional focus, cost-benefit and market analysis to identify the real needs, technical planning and stakeholder involvement as well as ensuring the necessary investment by assessing possible investment risks and by preparing an investment friendly environment. The regional energy cooperation programme EU4Energy presented its approach towards supporting regional energy connectivity.

Operational conclusions: From now the process will be operationalized in a step-by-step approach. Step 1: Agree on criteria and methodology in writing. Step 2: Start concrete identification work. Preparatory work to be done under EU4Energy, further discussions to take place in the energy panel as necessary which will accompany the process under EU4Energy. Political endorsement is to be provided by the new cross-sectoral Platform 3 under the new Eastern Partnership multilateral architecture. This is to be reflected in all relevant work programmes.

All PowerPoint presentations given during the meeting are available on the following web-page:

<https://ec.europa.eu/energy/node/2710>



1. Opening session

Ms Anne-Charlotte Bournoville, Head of Unit for International Relations and Enlargement at DG Energy, European Commission chaired the meeting. She introduced into the subject with **Ms Audrone Perkauskiene**, Head of Division for the regional cooperation in the Eastern Partnership at the External Action Service and **Mr Vassilis Maragos**, Head of Unit for Armenia, Azerbaijan, Belarus & Eastern Partnership at Directorate-General Neighbourhood and Enlargement Negotiations, European Commission. Reference was made to the Eastern Partnership Summit in Brussels of 24 November at which Heads of State confirmed the political priority of enhancing energy interconnectivity within the overall energy cooperation. They expect the revised Eastern Partnership architecture to improve the link between experts at technical level and decision makers at policy level and to increase the cross-sectoral synergies. While the regional energy programme EU4Energy is conceived as being the main instrument in the process towards identifying key energy interconnectivity projects in consistency and complementarity with existing interconnectivity projects lists under the EU and the Energy Community approaches, they called for close interaction with the International Financing Institutions (IFIs) and the regional and bilateral financing instruments.

Ms Marion Schiller-Probst, from DG Energy, European Commission gave a short overview on the discussions which have already taken place under the former Platform 3 with regard to enhancing energy interconnectivity. She concluded that work is not starting from zero and that the benefits of better energy interconnection for the citizens and the business in the partner countries and the overall stability in the region and the EU are well recognized. Future work needed to tackle the challenges of assessing the needs and risks, getting the necessary regulatory framework in place, defining and adapting existing selection methodology, technical planning including contingency of supply, financing and sustainability as well as involving the appropriate stakeholders.

Partner countries' representatives briefly shared their expectations as regards the workshop.

2. Project Planning

This first session focused on the challenges of long term planning with regional focus, providing examples and lessons learned from the ongoing processes in the EU, in the context of the Energy Community and within the Eastern Partners and between Eastern partners and EU Member States.

Mr Adam Syolzak, DG Energy, European Commission: In the context of the EU the main objectives of enhancing regional interconnectivity are i) to end energy isolation for instance between the Iberian Peninsula and Central Europe or for the Baltic countries, ii) to eliminate bottlenecks which are among others the consequence of increasing electricity generation from renewable energy sources or of missing infrastructure and iii) to increase source and route diversification, notably as regards gas supply. Mr Szolyak underlined the need to have i) an elaborated regulation in place (software: Trans-European Network Energy (TEN-E) regulation 347/2013) which in the case of the EU is the Third Energy Package that ensures the implementation of the EU integrated energy market by creating a level-playing field on the policy and with the regulators and transmission operators, ii) a robust mechanism for the necessary economic and technological assessments, iii) regional approach which in the EU leads to four main regional geographic groupings in the electricity and in the gas and oil sectors and iv) tools to incentivise cross-border cost-allocation. Based on this the hardware infrastructure can be planned which makes gas and electricity flow as and where it is needed. The Commission Initiative on Central and South-Eastern European Energy Connectivity (CESEC), launched in 2015, is an example of a regional initiative involving non-EU countries. It serves as a bridge in accelerating the integration of Central and South Eastern European gas markets and diversification of gas supplies. It has now been extended to electricity, energy efficiency and renewable energy.

Mr Robert Schroeder, ENTSO-Electricity and **Ms Celine Heidreheid**, ENTSO-Gas described the process of the multi-criteria project assessment under the regime of their respective Ten-Year Network Development Plans (TYNDP). Assessments of the energy systems against the EU energy policies are mainly based on cost-benefit analysis and a series of different scenarios in time on how demand and supply may evolve. This leads to the identification of infrastructure needs. Individual projects are assessed against their possible benefits, residual impacts including environmental and social impact, supply and market access diversification and costs. Market indicators include the socio-economic welfare, the integration of renewable energy, variation in CO2 emissions and its impact on security of supply.

Mr Adam Balogh, Energy Community, shared challenges and examples of best practice stemming from the experience with the Projects of Energy Community Interest (PECI) and the Projects of Mutual Interest (PMI – projects between Energy Community Contracting Parties and EU Member States). Mr Balogh explained the Regulation 347/2013¹ which was adapted for Energy Community purposes and which fosters the implementation, facilitates permit granting, provides regulatory incentives and monitors the implementation of interconnection projects in electricity, gas, smart grids and oil. It could therefore provide a good guidance for projects in the Eastern Partnership context. He also presented the project assessment methodology used by the Energy Community which allows to analyse, weigh and compare projects, showing the social welfare and price changes per country and region over time and which can be broken down to producers, traders and consumers.

The discussion touched upon the overarching question how to harmonize partner countries' priorities with the EU framework and more specifically on the possibility to base work in the Eastern Partnership context on the ENTSO's methodology, the need to check on possible opportunities of the new External Investment Plan (EIP) and the Connecting Europe Facility (CEF) of the EU, the EU4Energy task to develop a methodology to make non-Energy Community countries participate in the process, the role of the regulators, questions on regional funds and CESEC, the need to identify appropriate criteria for the evaluation of the market development, data access and to take issues of competition and market distortion into account.

The interventions from the Eastern Partner countries can be summarized as follows:

Azerbaijan - Mr Kamran Huseynov, Head of Investor Relations at SOCAR provided an overview of SOCAR involvement and on the process and works in PCI, PECI and PMI² projects and candidate projects, notably along the different parts of the Southern Gas Corridor. A main obstacle is to find sufficient support from EU Member States to make projects eligible to receive PCI, PECI or PMI status. It was called on Member States to recognize that also those sections of the SGC which are not built on their territory will eventually benefit a number of EU Member States and would therefore deserve being supported to become eligible for the different project categories and to receive financial support from the CEF. Cooperation with the Innovation and Networks Executive Agency (INEA) could be considered.

¹ Regulation (EU) No 347/2013 of the European Parliament and of the Council of 17 April 2013 on guidelines for trans-European energy infrastructure and repealing Decision No 1364/2006/EC and amending Regulations (EC) No 713/2009, (EC) No 714/2009 and (EC) No 715/2009 Text with EEA relevance

² **PCI**: Projects of European Union Common Interest; **PECI**: Projects of Energy Community Interest; **PMI**: Projects of Mutual Interest between EU Member States and Energy Community Contracting Parties

Georgia – Mr George Chikovani, Ministry of Energy informed about the government’s ambition to have in place a new electricity market and a new gas market by 2019 and 2020 respectively. He reported on the current opportunities for power exchange with neighbouring countries and the potential for Georgia for electricity and gas trading and transit in the Black Sea region. The Ten Year Development Plan of Georgia, based on EU and ENTSO-E methodology, foresees establishing new cross-border connections with neighbouring countries. Challenges derive from technical issues including not existing reverse flows of gas, transfer capacity, contractual restrictions but also from differing political relations among neighbours in the region. The main challenge for the Georgian natural gas sector is the need to ensure gas supply in extraordinary situations. Solutions could be building a compressor station at the border with Azerbaijan, a new segment of the Georgia-Armenia gas interconnector, as well as organizing reverse gas flows from Turkey to Georgia in the context of the South Caucasus Pipeline. In the longer term, Georgia also supports the development of White Stream and AGRI LNG to connect with Western partners via Black Sea routes.

Belarus – Mr Andrij Sorich, Ministry of Energy reported on the existing energy system, the fact that Belarus is energy self-sufficient and that it has diversified energy relations with its neighbours Russia, Latvia, Lithuania, Poland and Ukraine being a reliable energy transit country. Belarus is interested to supply further electricity to the EU via the BRELL ring (Belarus, Russia, Estonia, Latvia and Lithuania) but is concerned about the possibility that the Baltic States may opt to leave this ring and synchronise their systems with the continental European network, which according to Belarus, is technically speaking not necessary. Mr Sorich also expressed concern that a decreasing economic viability of gas transit from Russia through Belarus to Poland could be to the detriment of further strengthening gas interconnections.

Moldova – Mr Victor Haruta, Ministry of Foreign Affairs and European Integration, stressed the need to increase the capacity and security of High Voltage lines between Moldova and Romania which would include a back-to-back station, for which the EBRD supports a feasibility study, and putting in place power interconnection between these two countries. The national energy strategy also foresees the synchronisation with the Ukrainian power system.

Ukraine: Mr Andrii Prokofiev, Uktransgaz and **Mr Piotr Kuś**, Gaz-System, reported on the concrete example of gas interconnection between Poland and Ukraine. Mr Prokofiev informed on the technical parameters of the Ukrainian gas transmission and storage systems, the progress made in Ukraine as regards the integration of the Ukrainian gas market to the EU, the implementation of the 3rd Energy Package and the concrete ongoing works towards a new gas interconnection between Ukraine and Poland which is foreseen to be commissioned in 2020. Mr Kuś complemented information on the process and the ongoing works on pipeline infrastructure on both sides of the latter project. He also brought up the perspective to link this new interconnection in the longer term with the Northern Gateway project which eventually could provide new possibilities of supply and market integration in Central and Southern Eastern Europe regions and which should be fully operational by 2022. **Ms Oleksandra Kozlovska**, Ministry of Energy and Coal Industry briefly informed on three ongoing projects, notably the construction of an electricity overhead line between Ukraine and Slovakia, a new electricity line with Romania to speed up integration with the EU grid and finally a project involving Azerbaijan, Georgia and Ukraine aiming at transporting further oil from the Caspian region to the EU, already listed under the 2016 PECCI ((Oil_01) Ukraine - Poland oil pipeline (Brody - Adamowo)). Support from the EU and Energy Community to realize these projects would be welcome.

Armenia – Mr Levon Shaverdyan, Ministry of Energy Infrastructures and Natural Resources, reported on the reforms the energy system in Armenia is conducting based on the crisis experience of the 1990s. The national strategy includes nuclear energy, with the prolongation of the Nuclear Power Plant Metsamor decided in 2014, renewable energy and energy efficiency, the diversification of

sources and routes as well as regional integration of energy markets. Reforms, notably the law on electricity and the private sector, aim at diversifying the power generation by increasing the share of renewable energy sources, particularly hydropower which has a significant potential to export electricity to neighbouring countries. In addition, solar energy is now attracting more attention and a major solar power plant will be constructed in 2018. Armenia has achieved its 2020 target of 30% renewable energy sources in its energy mix. A major challenge is the bad condition of old infrastructure systems still stemming from the Soviet times. Cooperation between Armenia, Georgia and Iran are ongoing regarding the construction of a new transmission line.

3. EU4Energy support towards regional energy interconnectivity

Ms Bella Nestorova, DG Neighbourhood and Enlargement Negotiation, briefly introduced the objectives of the regional energy programme EU4Energy in the context of enhancing energy interconnectivity in the Eastern Partnership which is to guide towards a sound policy and investment decision. She referred to the main elements which all together should support this process, notably the Neighbourhood Investment Facility/Platform (NIF/NIP), the International Financing Institutions and finally the national investment plans. EU4Energy is implemented by the International Energy Agency and the Secretariats of the Energy Community and the Energy Charter. While the Energy Community Secretariat is entrusted with the technical assistance support in the exercise to identify key interconnectivity projects in the context of the Eastern Partnership, the two other implementing parties are contributing to this work in their respective areas of activity.

Ms Thea Khitarishvili, International Energy Agency, gave an overview of the work done so far as regards data and policy recommendations and she linked this work to the interconnectivity effort. Activities so far focused on clean energy and market statistics, which resulted in tailored country recommendations with the view to merge data and policy for developing strategic planning.

Ms Svitlana Karpyshyna, Energy Community Secretariat, presented the works undertaken towards the identification of regional projects of key infrastructure in the Eastern Partnership context which is covers two out of five specific objectives under the governance component of EU4Energy. Several steps towards the identification process have taken place and have so far led to a special regional meeting in October 2017 in Vienna. Discussions focused on i) the differences between the existing regional project categories PCI, PECE and PMI and the linked project assessment workflow, ii) the differences between the various EU financing instruments such as the Connecting Europe Facility (CEF), the Instrument for Pre-Accession Finance (IPA) and the Neighbourhood Investment Facility/Platform (NIF/NIP), iii) a number of project ideas presented by Georgia and Ukraine based on a call for suggestions launched by the Secretariat in July 2017. It was underlined that such projects shall not overlap with neither PECE nor PMI but that the methodology used in those processes could be adapted to the needs of the EaP context. Many of the suggested projects turned out to be not eligible because they would fall under PECE and PMI criteria. The next step is therefore a second call for suggestions during which Georgia and Ukraine will review their suggestions according to the information received and Armenia, Azerbaijan and Belarus are invited to transmit proposals. Moldova is not participating in this specific exercise because due to its geographic situation all possible interconnectivity projects in which it could be involved are falling under the PECE or PMI criteria. In addition to the 2nd call for proposals, the Secretariat will continue with work on selection criteria, the methodology and bilateral discussions with the view to come to a joint agreement as basis for the following steps.

The **discussion** showed that further explanation is required on differences and challenges in the different project approaches, selection criteria and the methodology to be applied before the concrete project selection process can bear results.

4. Securing investment

Mr David Kramer, Energy Charter Secretariat, presented the Energy Investment Risk Assessment (EIRA), a methodology elaborated by the Energy Charter Secretariat to assess investment risks in the energy field. During its pilot phase in 2017 Armenia, Belarus and Ukraine participated in the exercise. The focus is on the policy, legal and regulatory environment related to investment in energy. The methodology looks into pre-defined specific risk areas and indicators, assesses data collection and its validation and has developed a scoring system which allows comparing country risk profiles based on a qualitative and quantitative assessment of their individual risk level. The results are presented in a pilot report which was positively welcomed by participating countries and the Charter industry advisory panel at the Energy Charter Conference on 28 November in Ashgabat. The methodology will be further improved and work has started towards a public version of this report in 2018. All Eastern Partners have been invited to participate.

In the subsequent discussion round representatives of International Financing Institutions (IFIs) shared their experiences in the planning of major energy related projects in the region and recommended best practices.

Mr Alexander Antonyuk, European Investment Bank (EIB) monitored this session. He stated that experience shows that IFIs are still at the core of financing energy infrastructure while private investment has not yet reached the importance it should have. This leads to issues of coordination among IFIs, varying methodologies used for instance as regards the economy or the carbon footprints of projects, and differing degree of success.

Mr Oliver Tricca, EIB focused on experience in the context of public procurement. While the technical level in partner countries proves to be rather high, more technical assistance could for instance further improve the adaptation of standards and the use of innovating technology. Other areas with high potential for improvement are i) to overcome conflicts between competitive and transparent processes within a country, ii) reduce the long duration of the processes by improving the project implementation, and iii) better take into account the environmental aspect of projects as ecological concerns can be decisive for a project's success. Economic questions to be discussed and solved from the beginning include for instance the cost-allocation for cross-border interconnections and back-to-back stations. Guiding criteria for project selection should include security of supply and climate action aspects, for instance in order to avoid favouring further coal based electricity generation.

Mr Giuseppe Grimaldi, European Bank for Reconstruction and Development (EBRD) based EBRD lessons learned on co-financing experience between the EIB and EBRD in the context of the Southern Gas Corridor, cooperation with Naftogaz in Ukraine and gas interconnections between Moldova and Romania. In order to attract investment basic requirements include a consistent policy approach for market integration, getting software (regulatory framework) and hardware (physical infrastructure) together by having a solid regulation in place which is a key element for the bankability of projects. The Energy Community has helped here as a bridge between legislation of the EU and the Energy Community, for instance in the case of the Ungheni-Chisinau gas pipeline or gas storage in Ukraine. He noted that often shareholders request also compliance with OECD rules.

Ms Nino Shanidze, Kreditanstalt für Wiederaufbau (KfW) office in Georgia, confirmed that in recent years the regional aspect becomes more relevant in the KfW's activities in the region. While progress in reforms can be observed, more needs to be done in the implementation of the poverty matrix and in market and electricity reforms. Environmental concerns and the need to further harmonise linked criteria become increasingly important. On the economic side, better risk assessment and market analysis could help to avoid that estimations for a project differ from the end-result and lead for instance to under-utilisation, as happened in the case of the Black Sea

Transmission line. Finally, coordination and harmonisation between the beneficiary countries, the IFIs and other donors needs to be improved.

Ms Patricia Poggi, World Bank called on the need to systematically take into account the social aspect of projects, for instance the social costs of tariff reforms. Ms Poggi reminded the benefits of regional energy markets including reliability and lower costs of energy supply, enhanced competition at regional level and support for energy diversification and integration of renewable energy. She gave examples of World Bank activities in the region including modernisation of power grids in Ukraine and Moldova, supporting Ukraine in financing gas imports and technical assistance in tariff and subsidy reform in Ukraine. In the context of the power systems in South Caucasus, different technical characteristics and standards are hampering synchronous operation and increase costs. While significant opportunities for South Caucasus regional electricity interconnectivity including to Turkey exist, the regional trade and transit is still very limited. The World Bank Group could consider cooperation along a three-step approach of i) identifying key issues including the development of a market design and implementation road map, ii) political endorsement and iii) implementation which would also include preparatory works such as reinforcing the institutional framework and finalizing the road map and timetable.

The **discussion** touched upon the need to integrate environmental and social aspects of projects, the IFIs contributing not only with financial support but also by bringing in good governance aspects, the challenge of geostrategic facts in the region including occupied territories and its impact on the energy systems, the need to prioritize projects which are in line with country strategies, the need to install monitoring mechanisms and to create incentives so that public funding of the IFIs is eventually leveraged by private funding.

5. Conclusion

Ms Bournoville made a brief wrap-up of the different meeting topics. She concluded by stating that the process needed to be operationalized and brought a step further to achieve the final goal of identifying a regional project pipeline. Therefore a step-by-step approach should be installed:

Step 1: Agree on criteria and methodology in writing.

Step 2: Start concrete identification work.

Preparatory work is done under EU4Energy. Further discussions should take place in the energy panel as necessary which will accompany the process under EU4Energy. Political endorsement is to be provided by the new cross-sectoral Platform 3 under the new Eastern Partnership multilateral architecture. This is to be reflected in all relevant work programmes. A roadmap should also be included in the work programmes in order to be able to present a list of projects by 2020.

The Chair thanked the participants for their active participation and the various speakers and colleagues for their respective contributions and she encouraged partner countries to share feedback and ideas for future cooperation and topics for the platform meeting or other events.

Enclosures: Agenda, participants list