

---

***Access to and operation of the  
networks with an increase uptake of  
renewable energy***

Summary of brief reports for CP

Besiana Berisha- Republic of Kosovo

Milica Andonov- Republic of Macedonia

March 7<sup>th</sup>, Vienna

---

- The RE CG Work Programme 2016-2017 includes 4 main Activities and 9 Core Topics
- One of the main activities is Activity 2 regarding the implementation of the Renewable energy Directive
- **This report is for Core Topic 6: Access to and operation of the grids with renewable energy.**
- Deliverables:
  - ✓ **Rules for connection to the grids for renewable energy producers**
  - ✓ **Balance responsibility for large renewable energy producers**

- We prepared 4 questions about this core topic 6 and send to CP:
  1. *What did your country do, to ensure that any new producer of energy from renewable sources will be connected with priority in to the system with the comprehensive and necessary information for the estimate of the costs associated with connection?*
- **Albania-**
  - Law on the energy sector (No.43 /2015)
  - Law on renewable energies and transmission and distribution codes
- **Bosnia and Herzegovina-**
  - Laws on Renewable Energy Sources, relevant rules issued by the network operators and approved by the regulatory commissions
- **Republic of Kosovo –**
  - Electricity Law, Market design and Market Rules ,Transmission Connection Charging Methodology
  - Procedures for Connection to the Transmission Network Distribution code of DSO and methodology for connection to the distribution grid
- **Republic of Moldova-**
  - Laws on promoting the use of RE (Law 10/2016), on Electricity (107/2016),
  - New Regulation on connection to the grid and transport and distribution

1. *What did your country do, to ensure that any new producer of energy from renewable sources will be connected with priority in to the system with the comprehensive and necessary information for the estimate of the costs associated with connection?*
- **Montenegro-**
    - Energy Law (“Official Gazette of Montenegro”, No. 5/16) in December 2015
    - The Electricity Transmission Grid Code and the Electricity Distribution Grid Code
  - **Macedonia-**
    - Energy Law, the Rules of the Electricity Market, and
    - Rules for the distribution of electricity, Grid Code for Electricity Transmission
  - **Serbia-**
    - Energy Law, Article 70 and the Regulation on Incentive Measures for Privileged Electricity Producers
    - Rules of the Distribution and Transmission System
  - **Ukraine-**
    - Law of Ukraine "On Electricity Sector",
    - National Commission, that performs state regulation of energy and utilities (NERC)

2. *Did your country ensure reasonable and precise timetable for receiving and processing the request for grid connection and a reasonable indicative timetable for any proposed grid connection? What is the current state and average time for getting approval? How will it be improved? If not, what are the barriers to do so?*

- **Albania-**

- Based on the transmission and distribution tariff methodologies, and according to market rules approved by ERE, transmission or distribution tariffs in the domestic market are paid as per the load and not by producers

- **Bosnia and Herzegovina-**

- All requests for the connection to the electricity grid are currently being processed by DSO and TSO within the deadlines prescribed by the relevant laws (30 or 60 days). However, the actual average time necessary for the connection to the grid is unknown and depends on case

- **Republic of Kosovo –**

- Time table from the date of application for connection till parties sign connection agreement is described in Procedures for Connection to the Transmission Network. It is depended from the project complexity, but the maximum time for getting approval for connection is 150 days

2. *Did your country ensure reasonable and precise timetable for receiving and processing the request for grid connection and a reasonable indicative timetable for any proposed grid connection? What is the current state and average time for getting approval? How will it be improved? If not, what are the barriers to do so?*

- **Republic of Moldova-**

- TSO is obliged to issue the connection technical conditions to the applicant in maximum 15 days, Regulation on connection to the grid and transport and distribution services, when the DSOs are obliged to reply in 10 days. In case of a power plant connection to the grid, the technical conditions are issued in maximum 30 days from the submission date of the required documents

- **Montenegro-**

- TSO or DSO shall decide about a request for connection not later than 15 days as of the date of receipt of the request. The deadline is extended when there is no available capacity in the grid. The deadline for decision-making about the request shall be four months following receipt of the request. In general, there is not enough capacity for connection of all new producer of energy from renewable sources. TSO and DSO are making efforts to harmonize these requests with further development plans.

- **Macedonia-**

- The detailed procedures in the Transmission and Distribution Grid Codes described above require that RE Producers receive the necessary information on costs, precise timetable for processing their requests and an indicative timetable for their grid connection.

2. *Did your country ensure reasonable and precise timetable for receiving and processing the request for grid connection and a reasonable indicative timetable for any proposed grid connection? What is the current state and average time for getting approval? How will it be improved? If not, what are the barriers to do so?*

- **Serbia-**

- The requirement of the transparent, objective and non-discriminatory showing of costs related to access to the grid is set forth in Article 176 of the Energy Law.

- **Ukraine-**

- The National Commission, that performs state regulation of energy and utilities (NERC), shall annually publish information on the expenses associated with connection to the grid of power facilities that generate electricity using alternative energy sources.

*3. Identify the problems with the rules for connection to and operation of the transmission and distribution networks. How are envisaged to be address these deficiencies?*

- **Albania-**

- Constraints/interruptions of electricity from renewable sources are reported when the distribution system operator has been forced, due to technical reasons, to disconnect a remote area where it is and where the small hydropower manufacturer is connected. This regulatory entity is also responsible for the adoption of secondary legislation on the operation of network

- **Bosnia and Herzegovina-**

- Problems and obstacles related to connection to the electricity grid will be analyzed through a specific sectorial Working Group, with all relevant stakeholders. These activities will result in a Gap Analysis of the legislative framework governing the procedures for the connection to the grid and recommendations for specific changes in the legislation.

- **Republic of Kosovo –**

- Apart from the methodology, there are no barriers concerning connection to the distribution and transmission grid networks

- **Republic of Moldova-**

- Weak development of transport network in the places with high renewable potential. According to existing legislation, if an investor is going to invest in such a project he has to wait for the grid extension or to bear the costs related to power plant connection to the network.



*3. Identify the problems with the rules for connection to and operation of the transmission and distribution networks. How are envisaged to be address these deficiencies?*

- **Montenegro-**

- DSO has received numerous requests for connection RES power plants, sHPP which are mainly located in the rural area, where grid is least developed and electricity consumption is low. Installed capacity of sHPP is usually several times higher than the maximum consumption in the area and therefore it is necessary to strengthen the system for the purpose of creating the conditions for sHPP connection

- **Macedonia-**

- Until now, there were no such cases for RE installations ready to come online but not connected due to capacity limitations of the grid.

- **Serbia-**

- The requirement of a minimum curtailment related to the takeover of energy from renewable energy sources is set forth in Article 162 of the Energy Law, which stipulates that the electricity produced utilizing RES shall have priority access in the takeover of electricity by the transmission or distribution system, except for instances where the system safety is jeopardized.

- **Ukraine-**

- A system of compensating for curtailments remains to be implemented

4. *Are plants generating electricity from renewable energy sources integrated in the electricity market? What are their obligations regarding participation in the electricity market? If not, what are the barriers to do so?*

- **Albania-**

- All RES power plants are integrated in the energy market. The energy market is designed in accordance with the Albanian market model adopted by DCM no. 338, dated 19.3.2008. This market model requires that all electricity of the distributed producer ( ) be purchased by the buyer at a regulated promotional fee approved by ERE

- **Bosnia and Herzegovina-**

- Systems that REs oblige to pay for imbalances are in development phase

- **Republic of Kosovo –**

- In Kosovo several RES producers expected to be integrated soon in electricity market,
- Based on Electricity Law, Article 25- each electricity market participant shall have balance responsibility, based on the Rule on Support Scheme RE generators should pay 25% of imbalance costs, the remainder should be covered by the Renewable Energy Fund set up to fund FIT

- **Republic of Moldova-**

- Moldova, having in mind that electricity market is being established, they are operating at this stage only with assumptions.

4. *Are plants generating electricity from renewable energy sources integrated in the electricity market? What are their obligations regarding participation in the electricity market? If not, what are the barriers to do so?*

- **Montenegro-**

- Plants generating electricity from renewable energy sources are integrated in the electricity market.
- According to the Energy Law, new sHPPs of up to 10 MW installed capacity have the status of a privileged producer and their obligations are defined by this Law., but they are release from payment of services of system balancing

- **Macedonia-**

- Preferential RES Producers operate in parallel with the market in the sense that the Market Operator is required to purchase all power delivered to the grid at the approved feed-in tariff. In this sense, RE Producers are not dispatched, but rather run when the fuel (i.e., wind, water, solar radiation, etc.) and production facilities are available. According the Market Rules, preferential electricity producers have privilege of being released from the balance responsibility (paying penalties for deviations from the generation schedules).

- **Ukraine-**

- The draft Law “On electricity Market of Ukraine”, will clearly regulate the integration of RES in the electricity market

# Recommendations

- Timeline for each activity that we have according the work programme 2016-2017

ACTIVITY 2: Implementation of the Renewable Energy Directive		2016			2017			
		Q2	Q3	Q4	Q1	Q2	Q3	Q4
<b>Core topic 6: Access to and operation of the grids with renewable energy</b>								
1. Rules for connection to the grids for renewable energy producers	Assessment of the current bottlenecks in RES connection to TSO and DSO grids							
	Propose recommendations for coordination with administrative procedures							
1. Balance responsibility for large renewable energy producers	New market design for renewable energy integration – focus on balancing market							
	Best practices in operation of the grids with more RES penetration							

# Recommendations

- Rules for connection to the grids for renewable energy producers
- **Albania-**
  - Network operators have to adapt their grid development plans to accommodate more renewable energy and increase transparency towards potential investors regarding connection and access to the grids.
- **Bosnia and Herzegovina-**
  - The transmission system operator's role and responsibilities in connecting new renewable energy producers to the network and the principles of operation of the transmission network for electricity from renewable sources have to be set in state-level legislation.
- **Republic of Kosovo –**
  - The guaranteed and priority rights given to electricity from renewable sources to be fully implemented during the operation of the system, a proper market design,
- **Republic of Moldova-**
  - Methodologies for determining connection costs for new renewable energy producers has to be implemented for the Transmission or the distribution grids.

# Recommendations

- Rules for connection to the grids for renewable energy producers
- **Montenegro-**
  - The network and market operators should increase their efforts to be able to take up more renewable energy in the electricity system.
- **Macedonia-**
  - Principles for access to the networks and operation of the grids for renewable energy producers still have to be transposed in primary legislation
- **Serbia-**
  - Grid connection procedures and commercial agreements have to be further streamlined to ensure a conducive investment environment.
- **Ukraine-**
  - Transmission and distribution system operators have to adequately clarify the technical specifications for grid connection, which are currently unclear.

# Recommendations

- Balance responsibility for large renewable energy producers
  - All Contracting Parties currently have exception from the standard balancing responsibilities of generators from RES
  - As a general principle the legislative framework and market rules should stipulate that RES producers are beyond by the same duties and responsibility as all other electricity generators, further RES generators must be subject to standard balancing responsibilities unless no liquid intraday markets exist, measures must be put in place to ensure that generators have no incentive to generate electricity at negative price

THANK YOU