



# Energy Community experience and developments

Nenad Stefanović
Senior Expert for Electricity
ECRB Electricity Working Group Co-Chairman

3<sup>rd</sup> Joint ECRB – MEDREG Roundtable "Regulatory Principles and Regional Electricity Markets" 27 September 2016

**RAE**, Athens

### **Topics of Interest**

- CACM Regulation
- South East Europe Regional Action Plan (SEE RAP)
- Recent development status
- Berlin Process
- Q&A

## Third Energy Package: New Network Codes

### 3<sup>rd</sup> Package - NCs

- Production changes
- Increased generation of electricity from RES
- Increased generation on distribution network
- Consumption changes
- Increased Demand Side Response (DSR)
- Customers becoming prosumers
- Increased use of new appliances (electric vehicle)
- Market integration
- Increased cross-border trade
- Coupling of electricity markets

## **Third Energy Package**

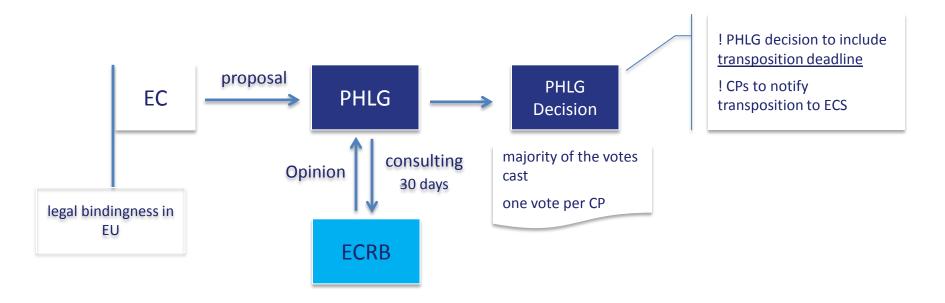
- On EU level, the entry into force of the Third Energy Package together with the target of completing the internal energy market by 2014 form the framework for electricity market development
- Third Energy Package was incorporated in the Energy Community in October 2011 with a transposition deadline by 1 January 2015
- This also includes adopting the European Network Codes, once legally binding on European level, in the Energy Community (Decision 2011/02/MC-EnC of the Ministerial Council of 6 October 2011)
- Ukraine has abstained from approval of the decision until the internal state procedures of ratification are performed
- Network Codes will, finally, have the form of a directly binding Regulation
- Different from EU, European Regulations do not develop direct applicability in the Energy Community but need to be transposed into national legislation
- The Energy Community Council by Decision 2011/02/MC-EnC empowered the Energy Community Permanent High Level Group (PHLG) to decide on the applicability of the European Network Codes and Guidelines in the Energy Community

## European acquis

- The first Regulation issued by the EC on market integration is the Commission Regulation (EU) 2015/1222 establishing a Guideline on Capacity Allocation and Congestion Management ("CACM Regulation") entered into force on 14<sup>th</sup> August 2015
- 2) A second **Regulation on Forward Capacity Allocation** ("**FCA Regulation**") was adopted by Member States on 5<sup>th</sup> October 2015 and it is expected to enter into force in 2016
- 3) Finally, the comitology process for a **Regulation on Electricity Balancing** is expected to start in 2016
- All these three Regulations have to be considered a relevant part of the European acquis and, as a consequence, should be adopted by the PHLG and transposed in the legal framework of EnC CPs
- ECRB has already made several times a strong plea for the timely and content wise coherent implementation of the NCs in the EnC without unnecessary delay

## Implementation of new acquis

- Standard procedure
  - Decision of the Ministerial Council
- Network Code procedure





Reciprocity and common legal rules needed for technical operation of interconnected networks and integration of markets!



### The 8th Congestion Management Region - SEE

 The so called 8<sup>th</sup> Congestion Management Region was established according to the approach used within the EU (ERGEG Electricity Regional Initiatives)

- The agreement on the South East European region was reached at the Ministerial Council in June 2008: The 8<sup>th</sup> Region was created by MC decision in June 2008
- The definition of the 8<sup>th</sup> Region was an important step towards the establishment of a SEE Regional Market for electricity
- As a result, a common Coordinated Congestion
   Management method, including capacity allocation,
   is to apply for the following territories:
  - the eight Energy Community Treaty
    Contracting Parties
  - the neighboring countries Bulgaria, Greece, Hungary, Romania, Croatia and Slovenia
  - Italy with regard to the interconnections between Italy and the CPs to the EnC Treaty (DC undersea cables)
  - Moldova and Ukraine are not technically in parallel synchronous operation within ENTSO-E, and thus cannot perform operationally CACM mechanisms in the 8th region



#### SEE

8 contracting parties

>20 borders

Population: 137,12 million

### **SEE Coordinated Auction Office**



- CEE and SEE TSOs decided to implement Explicit Flow-based CA
  mechanism in SEE Region ... vs. CWE, SWE and Nordic Region where Implicit
  NTC based mechanism is implemented (Market Coupling, Market Splitting)
- Coordinated Auctions and SEE CAO are in compliance with Regulation 1228/03 (714/2009) and CACM provisions
- Establishment of SEE CAO targets harmonisation of the allocation and nomination rules for Long and Short term transmission rights in the 8<sup>th</sup> Region
- EnC MC in December 2008 supported the location of SEE CAO in Montenegro
- Project Team Company in Charge of Establishing SEE CAO (PTC) has been officially registered in Montenegro on 4 July 2012 with the scope of preparing the effective operation of the SEE CAO (www.seecao.com)
- SEE CAO Company shareholder agreement by the TSOs of Albania, Bosnia and Herzegovina, Croatia, Greece, Kosovo\*, Montenegro and Turkey
- SEE CAO started to operate in 2013
- First allocation procedure were organized by SEE CAO: Yearly allocation for Q1 2015: an initial step towards centrally coordinated forward capacity allocation
- NTC based approach for SEE CAO as the first step
- SEE TSOs drafted Auction Rules and SEE Regulators approved SEE CAO related rules and will perform CA and SEE CAO Monitoring + define revenues distribution
- Obstacles for participation: VAT problem (FYR of Macedonia); Albania joining; Serbia activity plan

## South-East Europe Regional Action Plan

- The goal of integrating the seven European electricity regions into a single market area is addressed through the *Regional Initiatives* process which falls under ACER's responsibility and focuses on four cross-regional roadmaps:
  - Capacity calculation
  - Long term capacity allocation
  - DA capacity allocation (Market coupling)
  - Continuous mechanisms for implicit cross border intraday trading
- 8<sup>th</sup> Region participates in ACER's coordinated Monitoring activity
- SEE RAP defines the steps for regional market integration in the 8<sup>th</sup> Region streamlined with the milestones and actions of the European *Electricity Target Model* and the four crossregional roadmaps

## Action needed to overcome the identified constraint(s) in SEE RAP

- All elements of SEE RAP can be implemented within the legal framework of the 2<sup>nd</sup> Energy Package... but it needs update after the 3<sup>rd</sup> Energy Package and CACM NC
- Establishment of a regionally coordinated congestion management is explicitly required by Regulation (EC) 714/2009 (ex 1228/2003)
- It was realized that stronger political support, promotion and commitment are necessary to proceed... actions followed...
- Fully regionally coordinated allocation process for the entire 8<sup>th</sup> Region still lacks participation of Bulgaria, FYR of Macedonia, Romania and Serbia – joining underway
- Athens Forum in 2014 highlighted the need for TSOs of Bulgaria,
   Macedonia and Serbia, which so far have not participated in SEE CAO,
   to come up with concrete plans and timelines regarding their
   participation in a regional capacity allocation body
- Romanian stakeholders indicated clear commitment, once the neighbouring bidding zones' TSOs are cooperating within SEE CAO

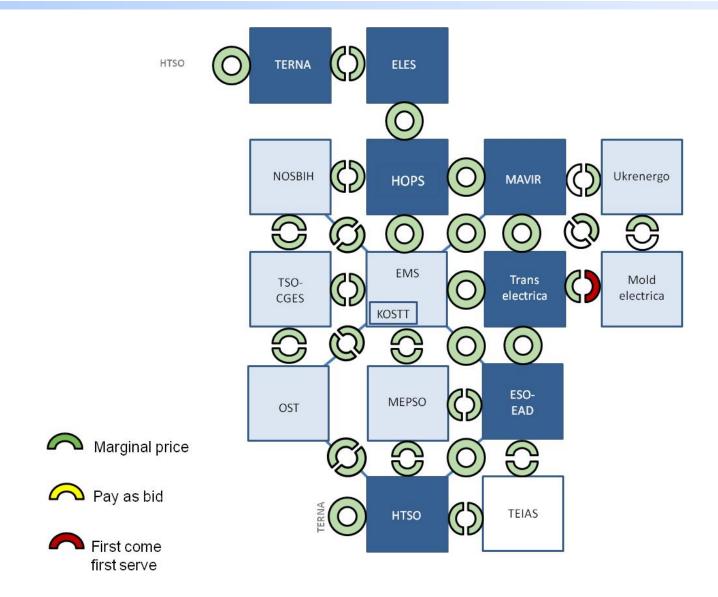
## Action needed to overcome the identified constraint(s) in SEE RAP

- Bulgaria, Croatia and Serbia established Power Exchange in 2015/16 and DA operation started in 2016:
  - > IBEX (Bulgaria) started DA operation in January 2016
  - ➤ CROPEX (Croatia) started DA operation on 10 February 2016; The new CROPEX day-ahead market is operational as a part of the European Union—wide Multi Regional Coupling (MRC).
  - SEEPEX started DA operation on 17 February 2016; open for MC and offering services; Plans for Market Coupling with Hungary / 4MC one year after starting operation

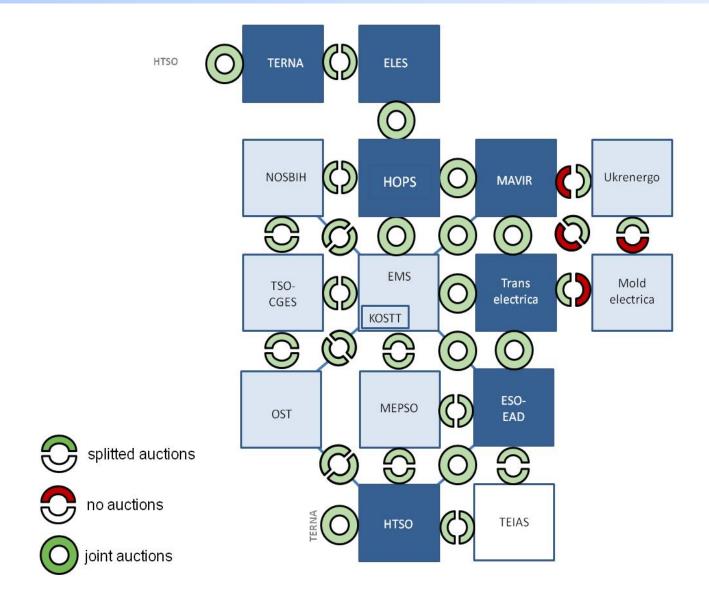
## **Conclusions on SEE RAP development**

- Still existing lack of a regionally coordinated capacity allocation mechanisms remains a key concern, both in terms of market liquidity as well as compliance with the EnC acquis communautaire
- Insufficient transmission interconnection capacity with neighbouring systems remains a key barrier for limited cross-border trading and the establishment of a Regional Electricity Market / PECI project
- Coordinated capacity allocation and congestion management schemes are therefore essential
- Although TSOs of all EnC CPs, except Moldova, have already introduced market-based capacity allocation mechanisms (based on NTC auctions) for congestion management at their borders, there is still insufficient harmonization in the 8<sup>th</sup> Region

## Mechanisms for Capacity Price determination in the 8th Region (Q1 2015)



## **Cross Border Capacity Allocation Mechanisms in the 8th Region (Q1 2015)**



## Capacity Allocation in SEE Region

- All CPs TSOs, except TSO of Moldova, have introduced market-based mechanisms for cross-border auctions, namely explicit NTC-based auctions
- With regard to the Republic of Moldova, the draft regulation transposing Regulation (EC) 1223/2008 has been finalised with further amendments; approval is, however, pending and subject to adjustments in primary legislation
- Auction rules for cross border capacity allocation for the borders
  of Ukraine have been adopted by NRA; these Auction Rules
  are, however, not in compliance with the EnC acquis
- Majority of CPs TSOs + Turkey joined SEE CAO as regional platform for capacity allocation
- The rest of CPs TSOs implement Joint auctions
- Croatian borders to Slovenia and Hungary were for the first time involved in CEE CAO (Y, M and D auctions) in 2013

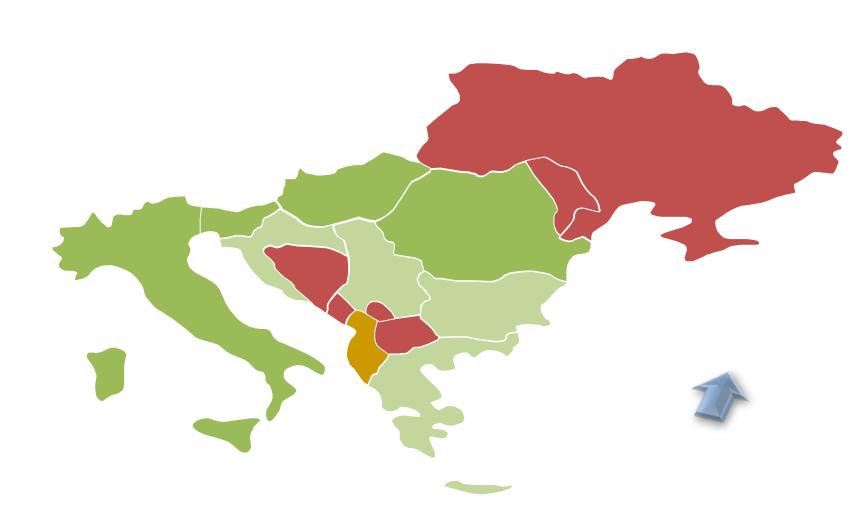
## **Market Coupling**

- The latest endeavours to establish Power Exchanges constitute a move into the right direction towards the development of spot markets and the provision of a condition for future implicit allocations
- The establishment of a Power Exchanges in Bulgaria, Serbia and Croatia are the front-runners in these developments, and SEEPEX (Serbia) in the CPs of EnC
- More details on how other bidding zones will be involved in this project are expected
- Most EU countries of the 8<sup>th</sup> region have established trading hubs on a day-ahead level, namely in Greece, Italy, Slovenia, Romania, Hungary and recently in Bulgaria and Croatia
- Romania joined Market Coupling mechanism between Czech Republic, Slovakia and Hungary; EPEX-Spot was selected as Service Provider by OPCOM/OKTE/HUPX

## **Day-Ahead Market: 2015**



## The 8th Region – Progress Maps – Establishment of PX (functionality) & Market Coupling



## The 8th Region – Progress Maps – Coordinated Capacity Calculation



## The 8th Region – Progress Maps – Long-Term Capacity Allocation



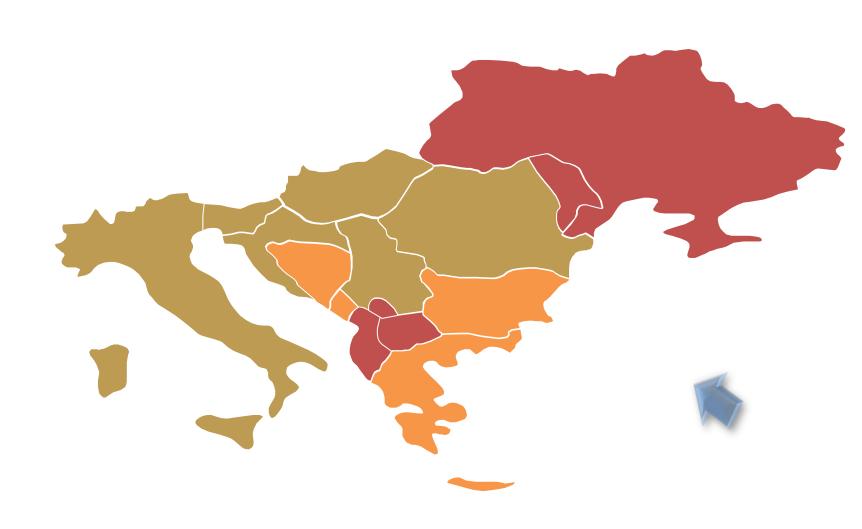
## The 8th Region – Progress Maps – Day-Ahead Market Development



### The 8th Region – Progress Maps - Intraday



### The 8th Region – Progress Maps - Balancing

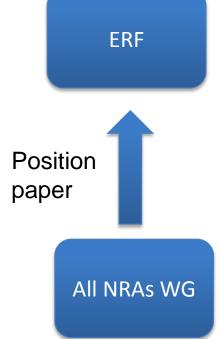


### All NRAs approval process

 Creation of an Energy Regulators' Forum (ERF) supported by an All NRAs Working Group (John Mogg's proposal)



- **ERF** scope:
- a) Approve a proposal
- Request an amendment to a proposal
- Request from ACER an extension to the deadline for decision by the NRAs
- d) Request ACER to adopt a decision



### **NEMO** designation

- EU TSOs and NEMOs shall develop the Terms and Conditions or Methodologies
- By 15 December 2015 the following 18 PXs have been designated as NEMOs:

APX IBEX

Belpex Lagie

**BSP** Nord Pool

**CROPEX OKTE** 

EirGrid OMIE

**EPEX Spot OPCOM** 

EXAA OTE

GME SONI

HUPX Towarowa Gielda Energii

- 9 out of 26 MS chose monopoly, the remaining 17 chose competitive regime
- In 21 MS the designating authority was the NRA

## **Capacity Calculation Regions**

- As of 14 November 2015 all NRAs approval process on CCR proposal started
- 11 Capacity Calculation Regions: Nordic, Hansa, CWE, Italy North, GRIT, CEE, SWE, IU, Channel, Baltic and SEE
- The 11th Region (SEE) will include borders from: Greece, Bulgaria, Romania, Croatia, Hungary, Serbia, Bosnia-Herzegovina, Montenegro, FYR of Macedonia and Italy (when the submarine connection with Montenegro will be operational)
- ACER invited ENTSO-E to initiate the Bidding Zone review process and to be involved in the definition of bidding zone configurations, methodologies and assumptions
- **ENTSO-E** proposed 3 expert based bidding zone configurations and one model based configuration
- According to CACM (art. 7) all NEMOs shall submit to all NRAs and the Agency a plan that sets out how to jointly set up and perform Market Coupling Operator (MCO) functions both for the intraday and the day-ahead market time-frames

## Possible impacts on CPs (1)

- CACM entry into force in CPs will determine a shift from a voluntary approach to market integration to a binding process
- CP-TSOs shall adopt the same Terms and Methodologies of EU-TSOs (common grid model, capacity calculation...)
- When CPs will join EU market coupling (DA and ID) they will be called to share the costs according to CACM sharing keys and the MCO plan
- The SEE Regional Action Plan needs to be coherent with the new framework...

## Possible impacts on CPs (2)

- ECRB EWG agreed to reshape SEE RAP with more focus to the early implementation of the CACM in the EnC CPs and the entire SEE region, thus providing regulatory and TSOs expert input on the SEE RAP details, what could be useful input to the WB6 process later
- As regards the situation of not having CACM incorporated into the EnC acquis, EWG expresses its concerns whether this constitutes discrimination in the context of NEMO governance, resulting in slowing down the Pan-European market integration, especially in the 8<sup>th</sup> CM Region (11<sup>th</sup> CCR)
- Existing possibilities, like shadow solutions for EnC CPs, as applied in the CCR process, may constitute an intermediary solution to this

## **Development of cross-border balancing**

- During a Joint ENTSO-E & EnC WS on 3rd Package Network Codes, held in Vienna on 4 November 2013, representatives of ECRB EWG, ENTSO-E RG SEE, and ECS endorsed the launching of an Initiative aiming to develop a Regional Balancing Concept for the 8th Region
- In the beginning of 2014, ToR of this project were under discussion.
- Project was taking place during 2014 btw SEE TSO/MOs, and NRAs joined discussions during 2015
- The "negative" opinion of ACER on the Electricity Balancing Network Code could cause delay in defining the projects work packages that should be based on the Code's requirements
- In January 2014, 3 TSOs of the SHB Control Block, ELES, HOPS and NOS BiH, concluded an agreement on the common procurement of balancing reserves
- This announced cooperation aims at reducing the overall amounts of procured balancing capacity and it constitutes a good starting point for further initiatives that widen and deepen this cooperation
- 3 TSOs of the SMM Control Block, CEGES, EMS and MEPSO concluded an agreement regarding the common procurement and sharing of balancing reserves in 2015
- Joint NRA-TSO/MO meeting was held in order to discuss the regulatory framework in relation to imbalance settlement

## Western Balkan 6 Initiative (WB6): Berlin process

- Western Balkans 6 ("WB6") Initiative identifies priority regional electricity infrastructure projects eligible for financial support, and establishing a list of regional and national actions related to spot market development, regional capacity allocation and cross-border balancing (so-called "soft measures")
- The geographic scope of this initiative covers: Albania, Bosnia and Herzegovina, Kosovo\*, FYR of Macedonia, Montenegro and Serbia
- **EU MSs** are **not signatories** of the WB6 Final Declaration
- **MoU** signed on 27 April 2016 by WB6 NRAs, electricity TSOs, PXs, Ministries and MOs on regional electricity market development establishes a governance structure for developing a common (WB6) spot market integration program and (WB6) cross border balancing cooperation program

## Conference on the Western Balkans – Berlin process

- Conference on the Western Balkans 28 August 2014
- Final Declaration by the Chair of the Conference on the Western Balkans

http://www.bmeia.gv.at/fileadmin/user\_upload/Zentrale/Aussenpolitik/Erklaerun g\_Englisch.pdf

- Conclusion 15 the Western Balkans countries agreed that:
  - European energy policy is of increasing importance
  - **Regional cooperation** within the framework of the Energy Community is an important component
  - The Western Balkans will continue to work intensively on further developing the Energy Community and on overcoming shortcomings in implementation

## Western Balkans Summit Vienna 2015 - Conclusions

- Final Declaration by the Chair of the Vienna Western Balkans Summit
- 27 August 2015

http://www.bmeia.gv.at/fileadmin/user\_upload/Zentrale/Aussenpolitik/Chairman\_s\_Conclusions\_Western\_Balkans\_Summit.pdf



22. The Western Balkan countries have decided to establish a regional energy market by establishing power exchanges and a regional balancing market as well as making the best use of the already existing Coordinated Auction Office. The Western Balkan countries agree on the priority list of 'soft measures' in energy covering specific national issues to implement the Energy Community *acquis* and have invited the Energy Community Secretariat to take the lead to develop the regional energy market and to help implementing these 'soft measures'. The Western Balkan countries will ensure that these issues are implemented before the next Summit in France.

## Western Balkans Summit Vienna 2015 – Addendum (I) Co-financing investment projects in Western Balkans

#### **Western Balkans Summit Addendum**

http://www.bmeia.gv.at/fileadmin/user\_upload/Zentrale/Aussenpolitik/Addendum\_Western\_Balkans\_Summit.pdf



#### **Connectivity Agenda:**

Co-financing of Investment Projects:

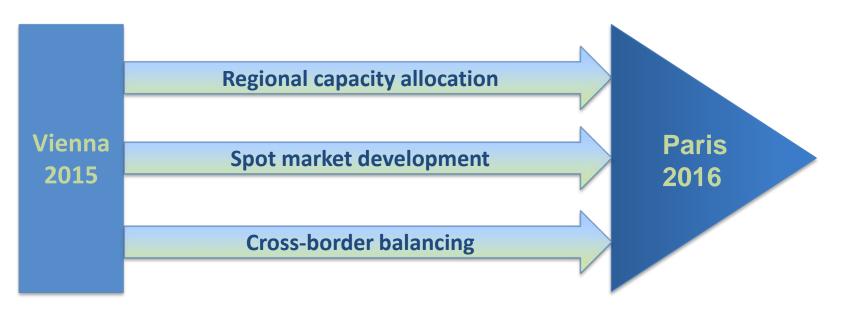
#	Reference	Beneficiary	IFI	Description / Title	Investment € million	Grant € million	Grant in %
IPA/WBIF 2015 Co-financing					538.8	144.9	27%
ENERGY PROJECTS							
1	WBIF CF 1001 ALB ENE	Albania	KfW	Albania – the former Yugoslav Republic of Macedonia Power Interconnection (I): Grid Section in Albania	70	14	20%
2	WBIF CF 1002 MKD ENE	the former Yugoslav Republic of Macedonia	EBRD	Albania – the former Yugoslav Republic of Macedonia Power Interconnection (II): Grid Section in the former Yugoslav Republic of Macedonia	49	12	24%
3	WBIF CF 1015 MNE ENE	Montenegro	KfW	Trans-Balkan Electricity Corridor (I): Grid Section in Montenegro	127	25	20%
4	WBIF CF 1003 SER ENE	Serbia	KfW	Trans-Balkan Electricity Corridor (II): Grid Section in Serbia	28	6.6	24%

### Western Balkans Summit Vienna 2015 – Addendum (II) Energy soft measures

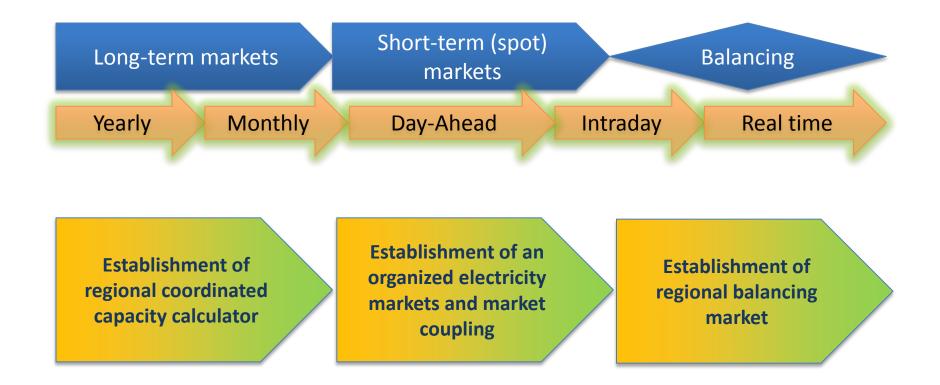
**Energy soft measures** – towards development of regional market:

- Regional measures
- National measures

Paving the way to Paris 2016...

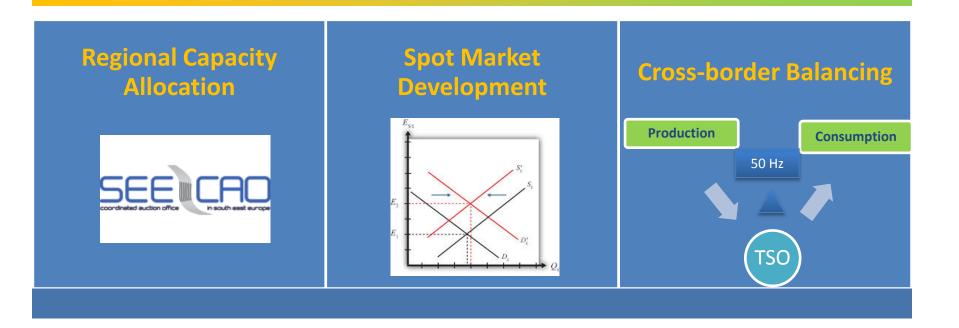


## Regional measures towards the development of a regional market



## **National accompanying measures**

### Removal of legal and regulatory obstacles



### **Cross-cutting measures**

- Eliminating price regulation
- Granting eligibility to all customers
- TSO and DSO unbundling
- Ensuring independence of national energy authorities
- Applying for observer status in ACER
- Increase effectiveness of national administrative authorities
- Timely implementation of Trans-European Network Regulation

## Thank you for your attention!

#### **Contact:**



Nenad Stefanović ECRB EWG Co-Chairman Senior Expert for Electricity

Energy Agency of Republic of Serbia (AERS) Terazije 5 / V 11000 Beograd-Serbia

Tel: +381 11 3037 253 Fax: +381 11 3225 780

E-mail: nenad.stefanovic@aers.rs

URL: www.aers.rs