

# *Western Balkan 6*

## *Regional Electricity Market*

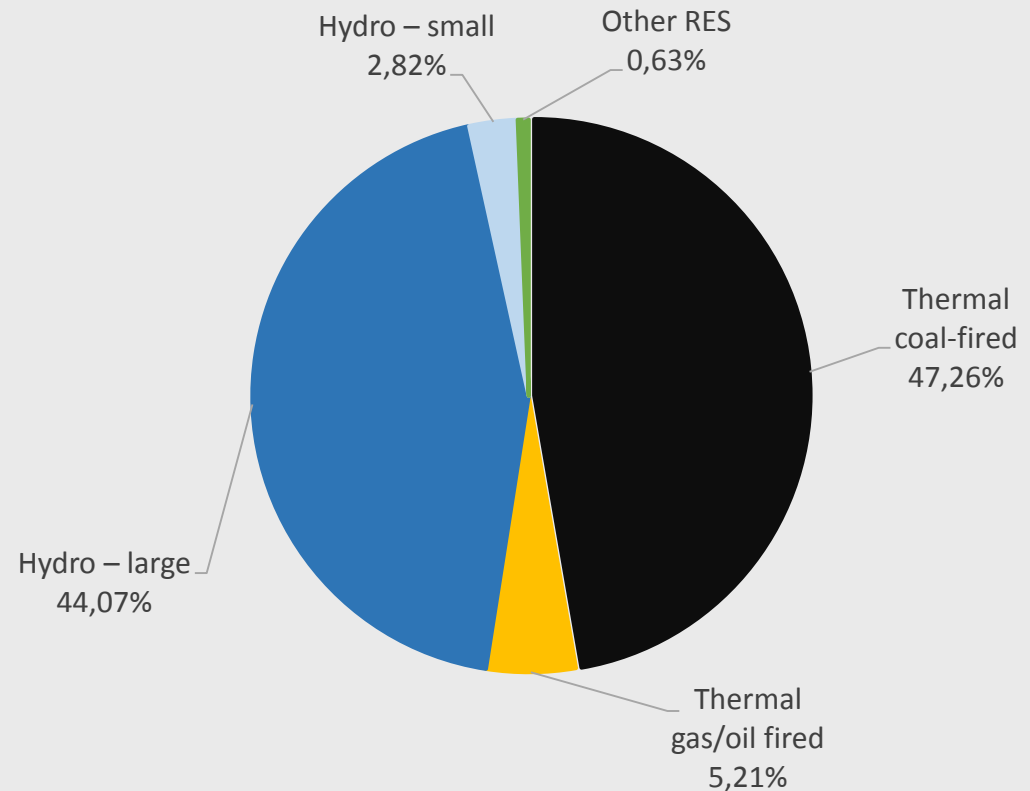
### *Development*

*Simon Uzunov, ECS*

# WB6 Installed production capacity (2016)

## ➤ Generation (18.000 MW):

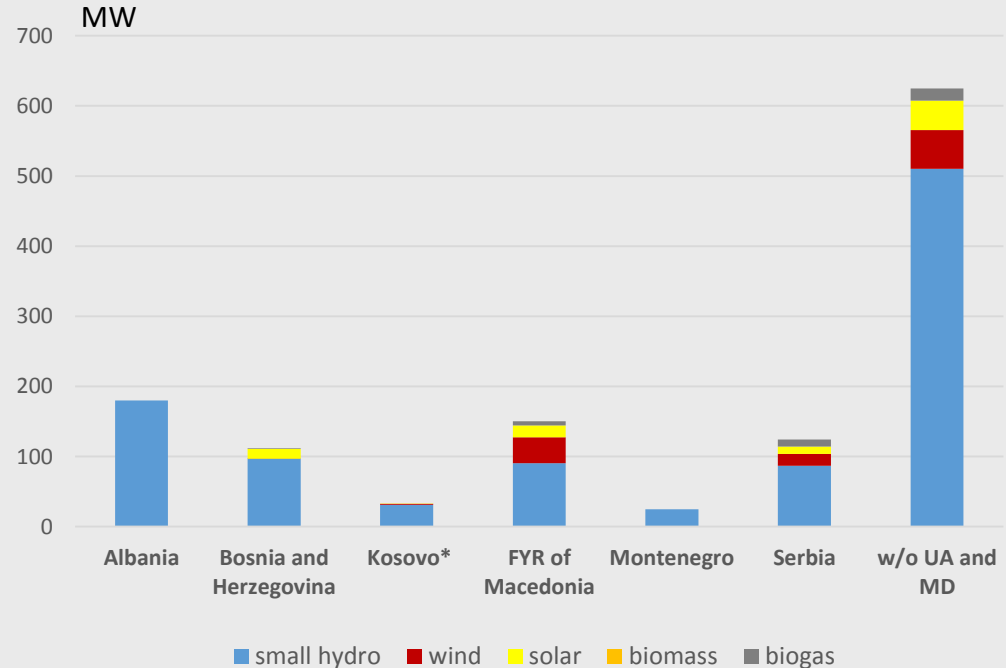
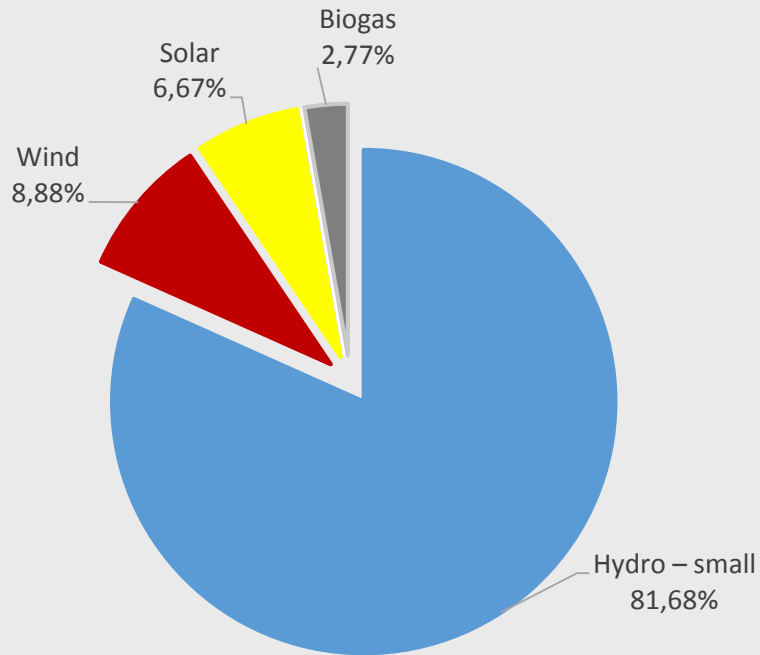
- ✓ Dominated by thermal coal-fired and large hydro generators
- ✓ Aged and obsolete (with the exception of TPP Stanari in BiH 300 MW commissioned in 2016)
- ✓ Huge investments needed in large combustion plants in order to comply with environmental standards
- ✓ 51% of large combustion capacities eligible to opt-out



## ➤ Penetration of RES producers (excl. large hydro) still very modest (3.5%)

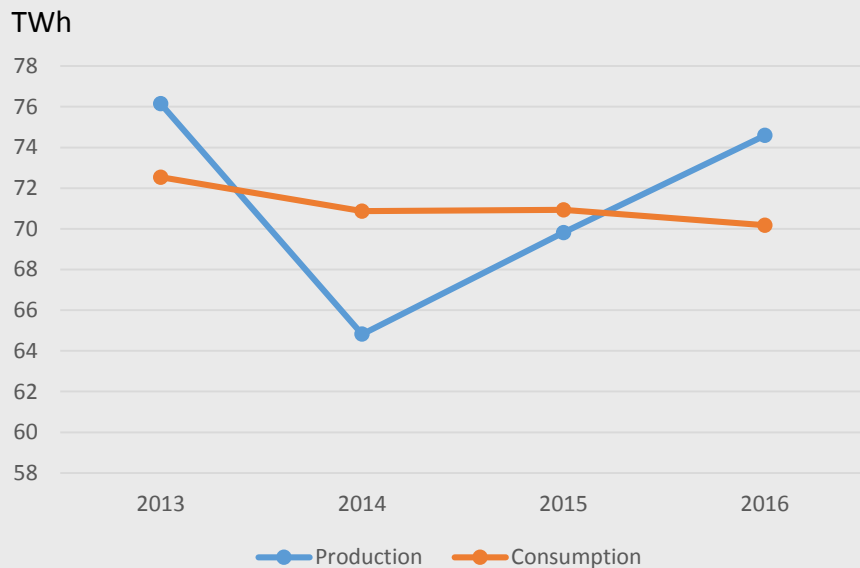
# WB6 Installed capacity from small RES (2016)

## Installed small RES capacity (625 MW)



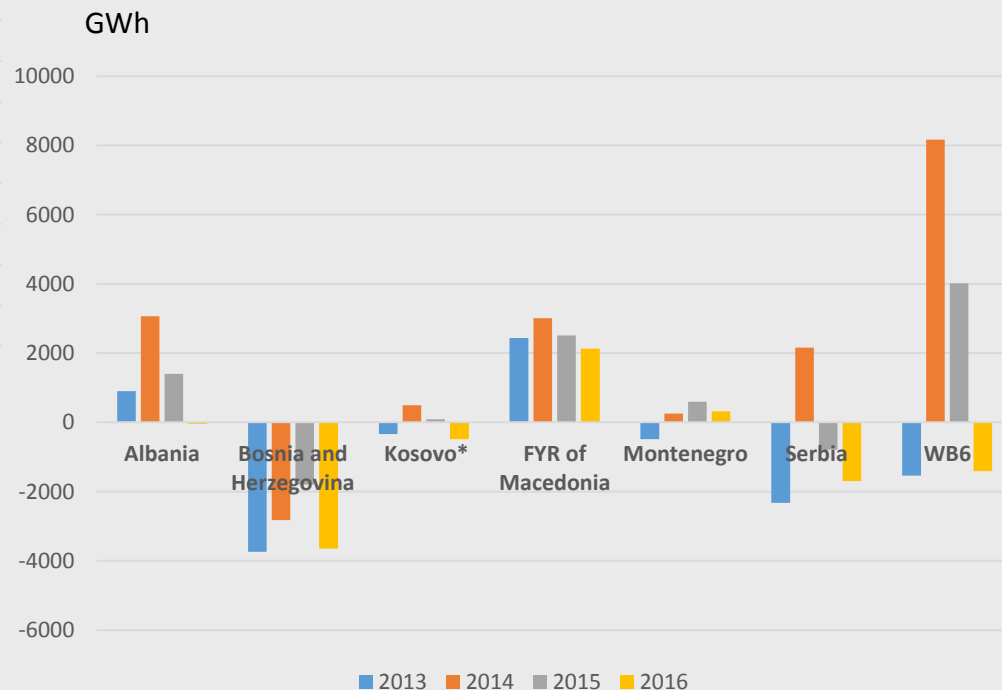
➤ Concerns with biodiversity in HPP projects

## Gross electricity balance

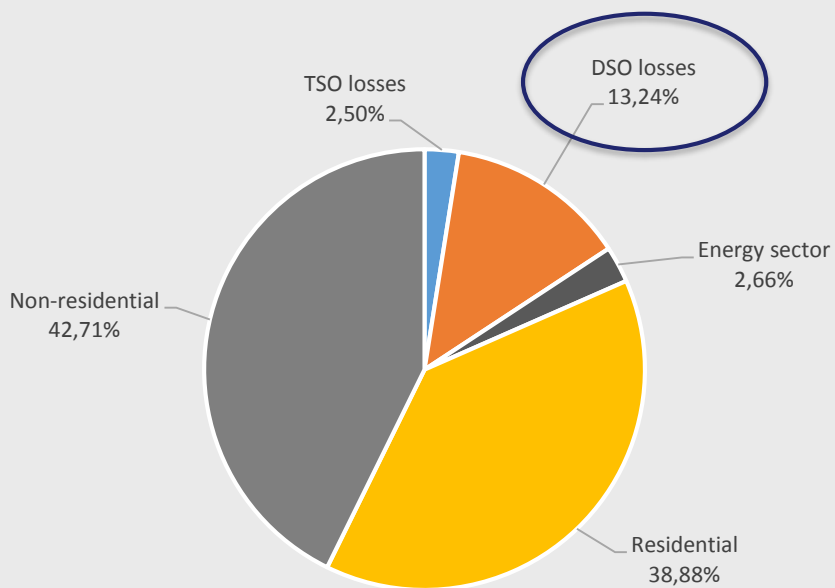


➤ The region is basically net electricity importer

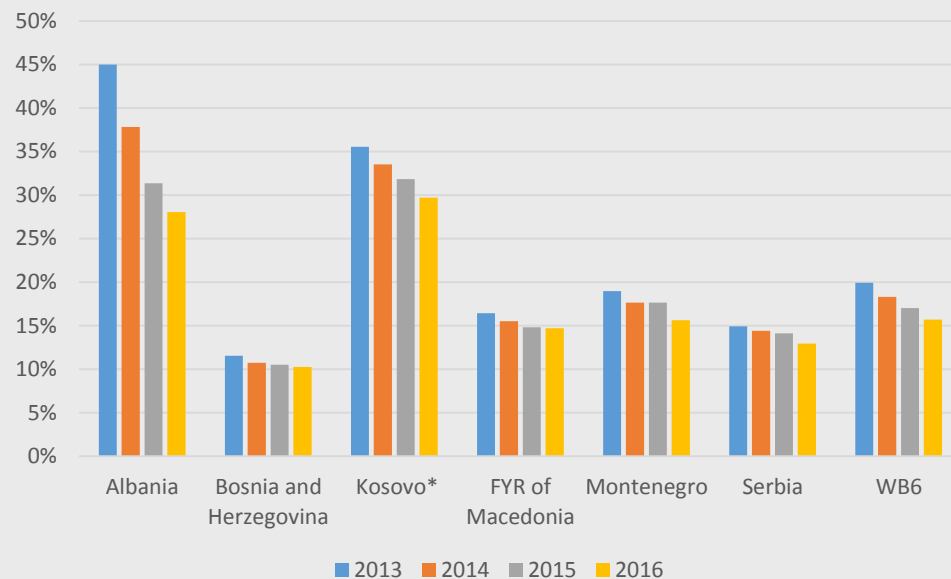
## Net imports / exports



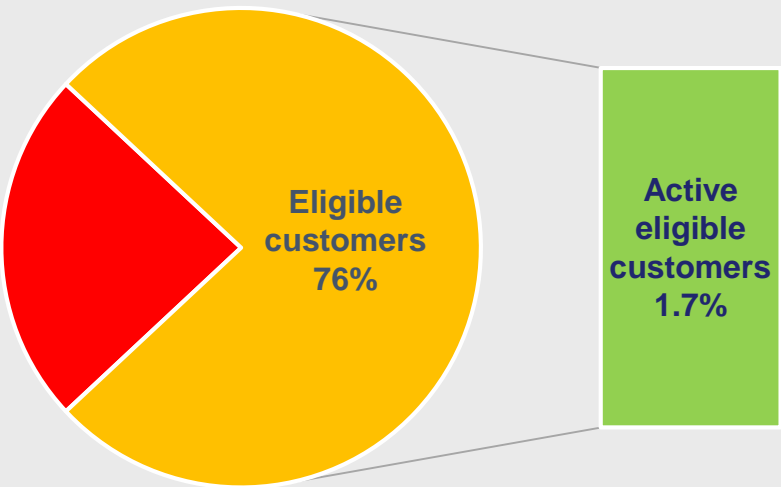
## Gross electricity consumption 71.4 TWh in 2016



## Distribution losses (2013-2016)

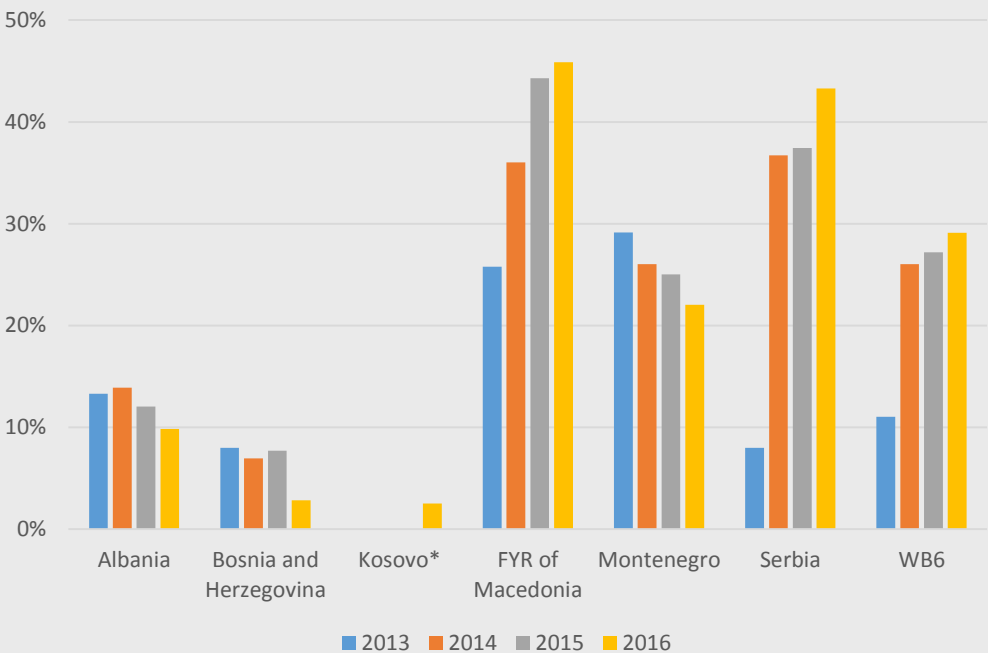


Switching rate (2016)



Total No. of customers 7.97 mill.

Supply to active eligible customers (2013-2016)

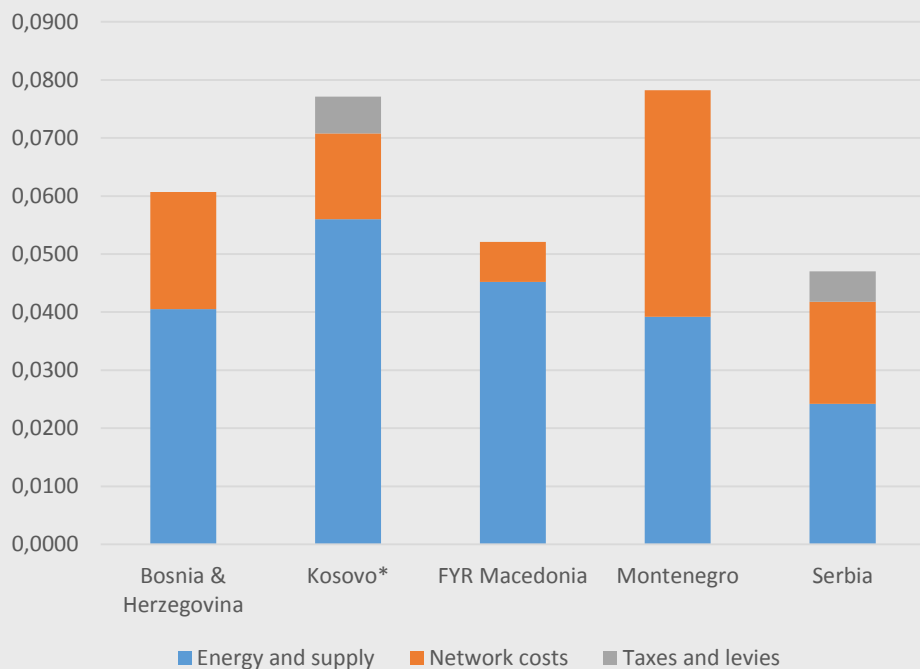


# Retail market prices (2016)

## Price components for industrial end-users (500-2000MWh) (2016)

## Price components for households (2500-5000kWh) (2016)

€/kWh



0,1000

0,0900

0,0800

0,0700

0,0600

0,0500

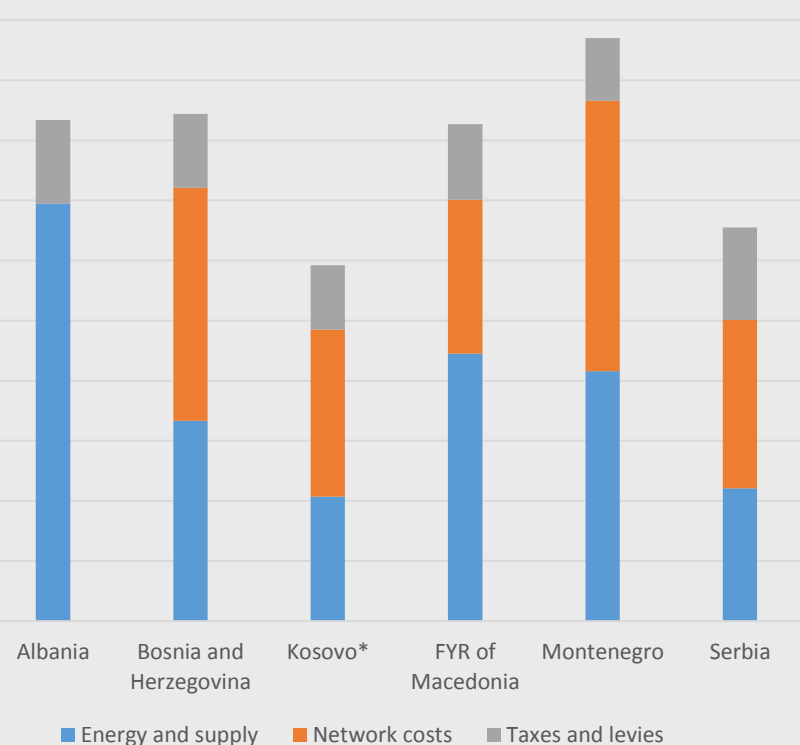
0,0400

0,0300

0,0200

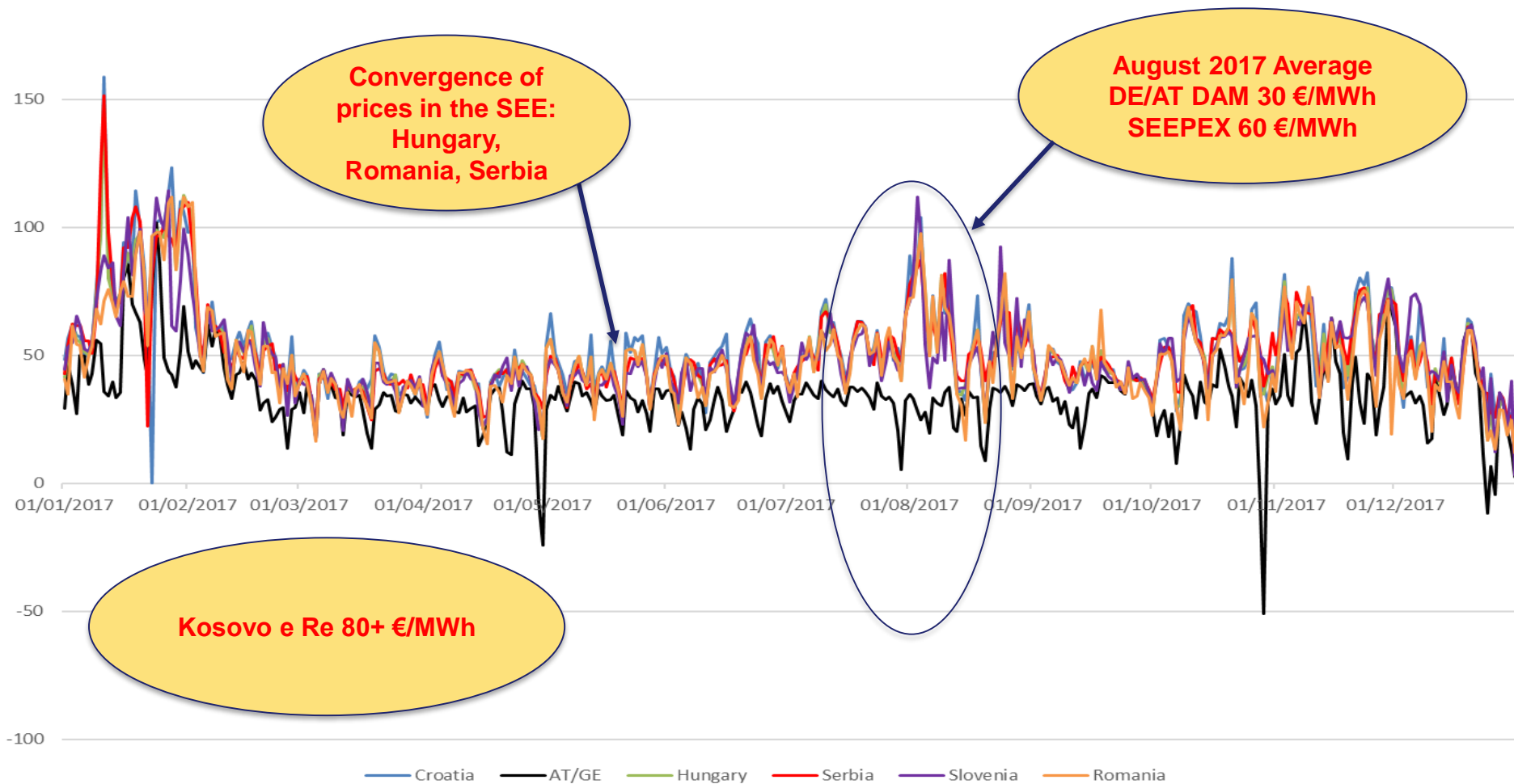
0,0100

0,0000



# Moving towards market coupling - SEE price convergence (2017)

200





### Berlin process

Political commitment to improve connectivity in Western Balkans

### WB6 MoU on regional electricity market development

WB6 and 15 EU MSs signatories

### Grant Contract EU-ECS

Financial support to connectivity measures  
**EUR 1 mill.**

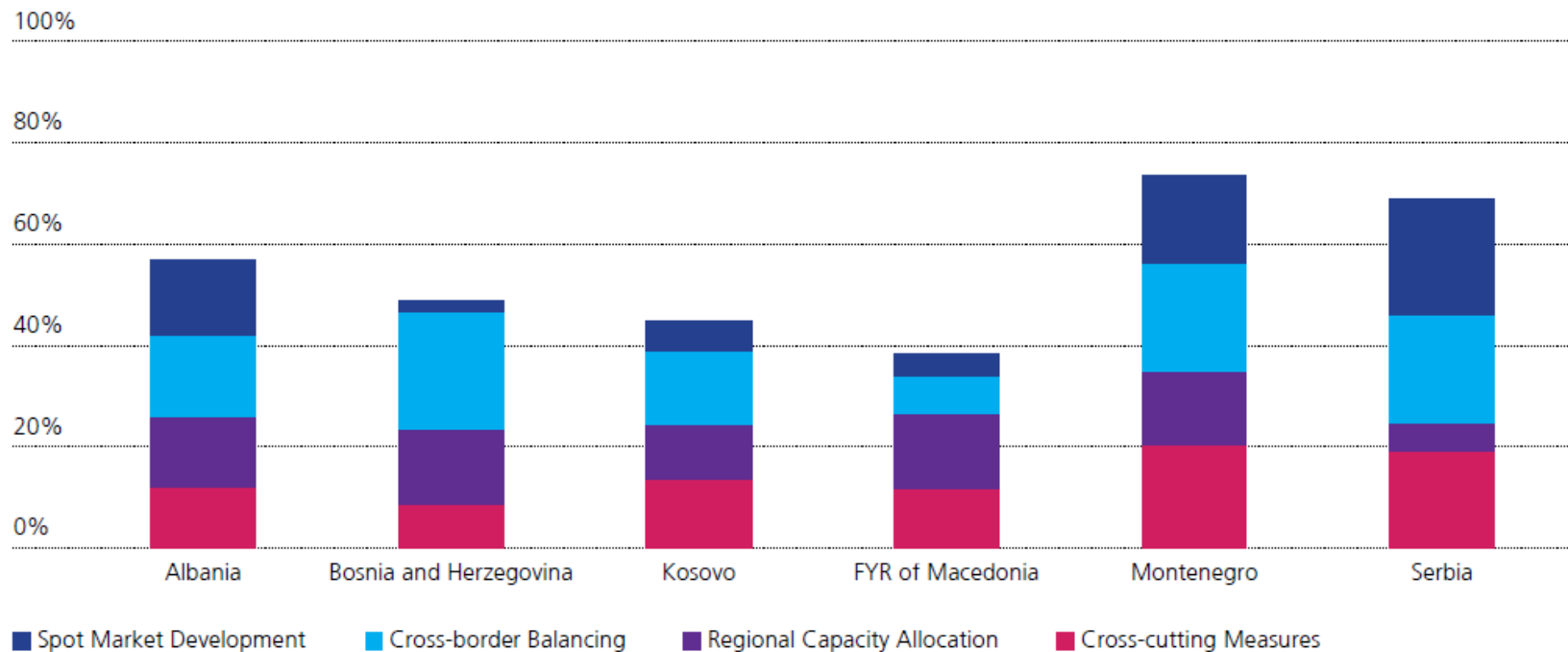
### Facilitating, monitoring and reporting

Energy Community Secretariat

## Western Balkans 6 Initiative

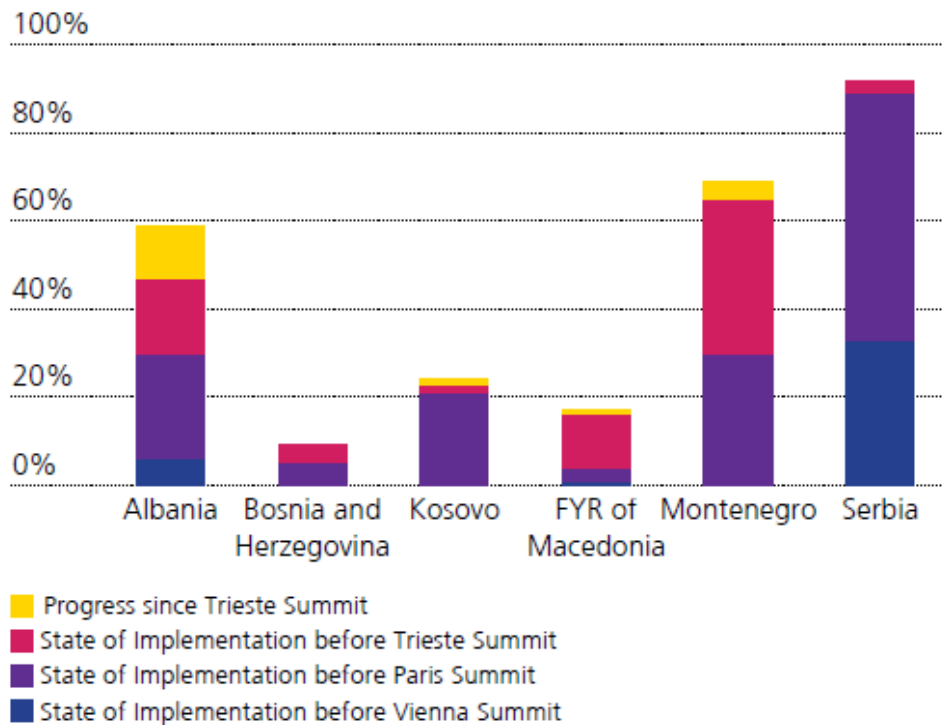
## WB6 electricity monitoring report (March 2018)

### Overall Implementation of Soft Measures



## Spot Market Development

*Most of the WB6 focused on completing a necessary legal framework and finding an efficient solution for day-ahead market establishment*



- ✓ DAM functional only in Serbia
- ✓ Power exchange company established in ME (process of selecting strategic partner is ongoing)
- ✓ Albania adopted in Feb 2018 amendments to the PSL necessary for establishment of APEX, activities on drafting CoM Decision on APEX shareholders' structure ongoing
- ✓ Progress in Kosovo depends on APEX establishment (KOSTT to be a shareholder in APEX)
- ✓ FYR of Macedonia adopted the new Energy Law in May 2018, setting the ground for the establishment of day-ahead market
- ✓ BiH – pending the adoption of the State Law on Regulator, Transmission and Power Market



## **WB6 technical assistance to establish Institutional Set-up for Organised Day-ahead markets (I)**

### ***Bosnia and Herzegovina***

- ✓ *Technical assistance finalized in April 2018*
- ✓ *Objective: finding an efficient and viable solution for organising DAM in BiH*

### ***Main conclusions:***

- ✓ *Current legal framework is not adequate to support the creation and governance of an organized day-ahead market*
- ✓ *A legal entity should be assigned via a primary legislation as well as general guidelines for the organization and design of the day-ahead market*
- ✓ *Nothing prevents preparatory activities even before the law is adopted*
- ✓ *A "light" and inexpensive DAM to be established, with the main functions outsourced*
- ✓ *Implementation of DAM platform to be finalized by February 2019 according to the proposed action plan (assuming that the law is adopted by end June 2018)*



## **WB6 technical assistance to establish Institutional Set-up for Organised Day-ahead markets (II)**

### ***FYR of Macedonia***

- ✓ *Technical assistance to establish Institutional Set-up for Organised Day-ahead market ongoing*
- ✓ *Objective: finding an efficient and viable solution for organising DAM*

### ***Deliverables:***

- ✓ *Analysis of the legal framework and secondary legislation relevant for the establishment of DAM*
- ✓ *Consultation with all stakeholders on the preferences related to DAM operation*
- ✓ *Report on the findings and classification of possible models for operation of the DAM (SWOT)*
- ✓ *Recommendations to the beneficiary (MEPSO), roadmap and timeframe*

### ***Progress:***

- ✓ *New Energy Law (adopted), other legislation to be updated*
- ✓ *Corporate establishment and roadmap defined (to be presented)*
- ✓ *Market coupling initiative with IBEX (Bulgaria)*



## WB6 technical assistance to establish Institutional Set-up for Organised Day-ahead markets (III)

### **Montenegro**

- ✓ *Technical assistance to establish Institutional Set-up for Organised Day-ahead market ongoing*
- ✓ *Objective: find an efficient and viable model of strategic partnership for organising DAM*

### **Deliverables:**

- ✓ *Identification and evaluation of possible models of strategic partnership*
- ✓ *Definition of a procedure and criteria for selection of a strategic partner*
- ✓ *Drafting tender documents for selection of strategic partner*  
*(Tender documents are developed based on the consultant's proposal and the RFI procedure is currently ongoing)*

### **Recommendation:**

- ✓ *Consultant proposed a selection of strategic partner in a closed two-step tendering procedure with:*
  1. *Request for information (RFI)*
  2. *Request for proposal (RFO)*



## **WB6 technical assistance to the Implementation of a Regional Day-ahead Market in the Western Balkans**

**Objective:** *Aassisting WB6 in a preparation and implementation of projects that will lead to efficient coupling of their national organized day-ahead markets with at least one neighbouring WB6' or EU MSs' market (by July 2018)*

**Beneficiaries:** *WB6 ministries, transmission system operators, power exchanges, market operators and national regulatory authorities*

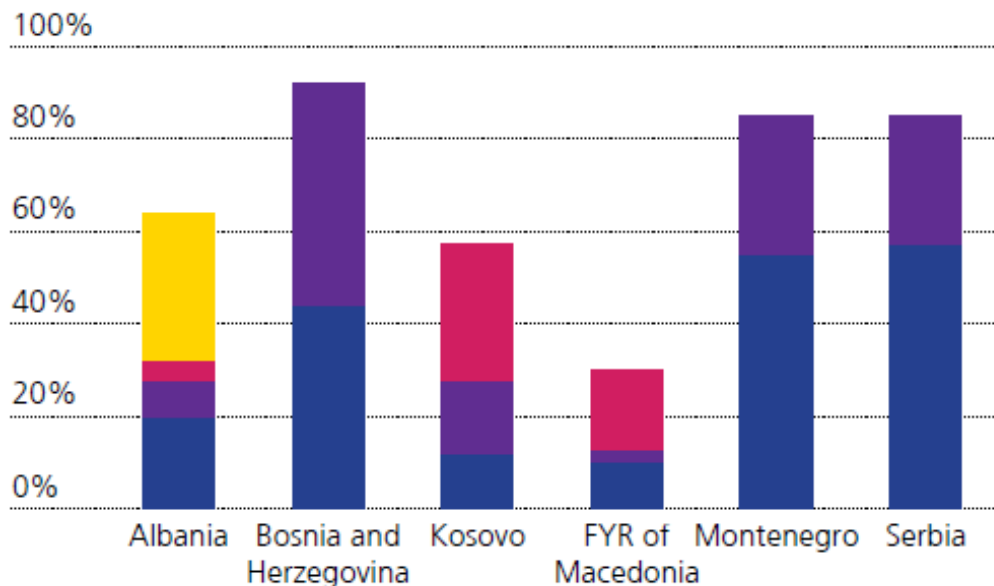
**Starting point:** *WB6 Day-ahead Market Integration Program Road Map*

### **Identified regional projects:**

1. *Albania-Kosovo\* Market Coupling Project*
2. *Montenegro-Serbia Market Coupling Project*
3. *Serbia-4MMC Market Coupling Project*
4. *Albania – Italy – Montenegro – Serbia (AIMS) Market Coupling Project*
5. *FYR of Macedonia -Bulgaria Market Coupling Project*
6. *Bosnia and Herzegovina - Market Coupling with Croatia, Serbia or Montenegro*
7. *Albania – Greece Market Coupling*

## Cross-border Balancing

*Progress is so far limited to bilateral/trilateral cooperation. Truly regional balancing is still to take off in the Western Balkans, despite the considerable welfare gains it would bring.*



- Progress since Trieste Summit
- State of Implementation before Trieste Summit
- State of Implementation before Paris Summit
- State of Implementation before Vienna Summit

### Removing obstacles at national level

- **Regulation of national balancing market prolonged by end 2018 in:**
  - ✓ FYR of Macedonia (The law adopted in May and WB6 TA on the way)
- **Progress made:**
  - ✓ Albania – adopted transitional balancing rules (developed under WB6 TA) - January 2018
- **Balancing mechanisms operational:**
  - ✓ Bosnia and Herzegovina
  - ✓ Montenegro
  - ✓ Serbia



## WB6 Technical Assistance to the Implementation of Cross-border Electricity Balancing

**Objective:** *provide the technical support to a cross border electricity balancing cooperation through:*

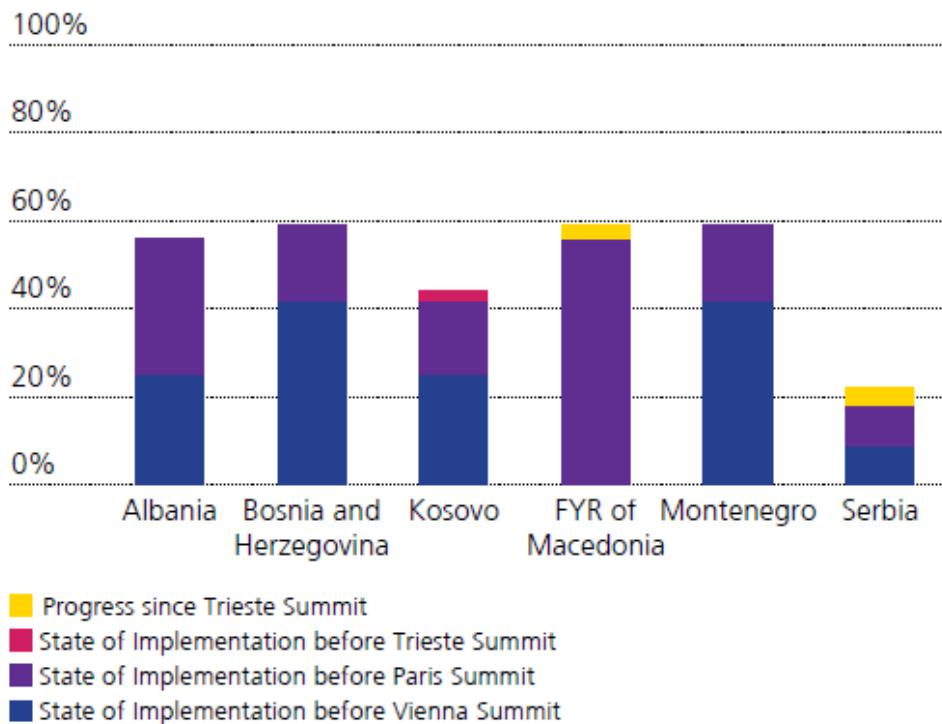
- 1. Development of a consistent and feasible roadmap** *in accordance with the EU guidelines (EB GL and SO GL)*
- 2. Development of feasible model** *for regional:*
  - *imbalance netting*
  - *cross-border balancing energy exchange from (mFRR) and replacement reserve (RR)*
- 3. Evaluation of implementation impact - cost-benefit analysis** *(regional, national, company) based on testing results and criteria defined by EB GL.*

### **Tasks:**

- 1. Assessment of national balancing markets of beneficiary countries*
- 2. Assessment of impact of existing Control Blocks on balancing market cooperation*
- 3. Models of regional cooperation for balancing energy – Exchange of balancing energy*
- 4. Models of regional cooperation for balancing energy – Imbalance netting*
- 5. Development of a roadmap towards a regional/European balancing cooperation/market*

ACTIVITIES	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	M11	M12
	dec	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov
<b>MOBILISATION</b>												
Project start	PROJECT START											
Kick-off meeting	Kick off meeting											
<b>TASK 1&amp;2</b>												
Submitting data questionnaires	Submitting data questionnaires											
Responses to questionnaires	Responses to questionnaires											
Developing Task 1&2 reports	Developing Task 1&2 reports											
Draft Report Task 1&2	Draft Report T1&2											
Comments by EC and WB6 XB PSC	Comments by EC and WB6 XB PSC											
<b>TASK 3</b>												
Developing Imbalance Netting Target model	Developing Imbalance Netting Target model											
Workshop No. 1 - Target Model - Imbalance Netting	Workshop No.1											
Comments by EC and WB6 XB PSC	Comments by EC and WB6 XB PSC											
Development of Imbalance Netting platform	Development of Imbalance Netting platform											
Workshop No.2 (session: simulation training-Imbalance Net)	Workshop No.2											
Dry runs - imbalance netting	dry - run											
Cost-benefit analyses, implementation recommendations	Cost-benefit analyses, implementation recomm											
Draft Report Task 3	Draft Report T3											
<b>TASK 4</b>												
Developing mFRR/RR Target model	Developing mFRR/RR Target model											
Workshop No.2 (session: Target Model-mFRR/RR exchange)	Workshop No.2											
Comments by EC and WB6 XB PSC	Comments by EC and WB6 XB PSC											
Development of mFRR&RR exchange platform	Development of mFRR&RR exchange platform											
Workshop No.3 - Simulation training-mFRR/RR exchange	Workshop No.3											
Dry runs - mFRR/RR exchange	dry-run											
C&B analyses, implem. recommendations	C&B analyses, implem. recommendations											
Draft Report Task 4	Draft Report T4											
<b>TASK 5 &amp; Finalisation</b>												
Developing Integration Roadmap	Developing Integration Roadmap											
Draft Report Task 5	Draft Report T5											
Draft Final Report	Draft Final Report											
Workshop No.4	Workshop No.4											
Comments by EC and WB6 XB PSC												
Final Report	Final Report											

## Regional Capacity Allocation and Calculation



- SEE CAO is operational on a number of borders of BiH, HR, ME, AL, GR, MK, TY
- No progress has been made towards implementing Framework between TSOs of Kosovo\* and Serbia
- Serbia started allocating capacities on border with Croatia through JAO, but still has not joined SEE CAO
- **Regional Capacity Calculation and Coordinated Capacity Calculator based on the Regional Security Coordinators(s) is still pending:**
  - ✓ **Operational - RSC SCC – BA, MK (joined in 2018), ME, RS**

