

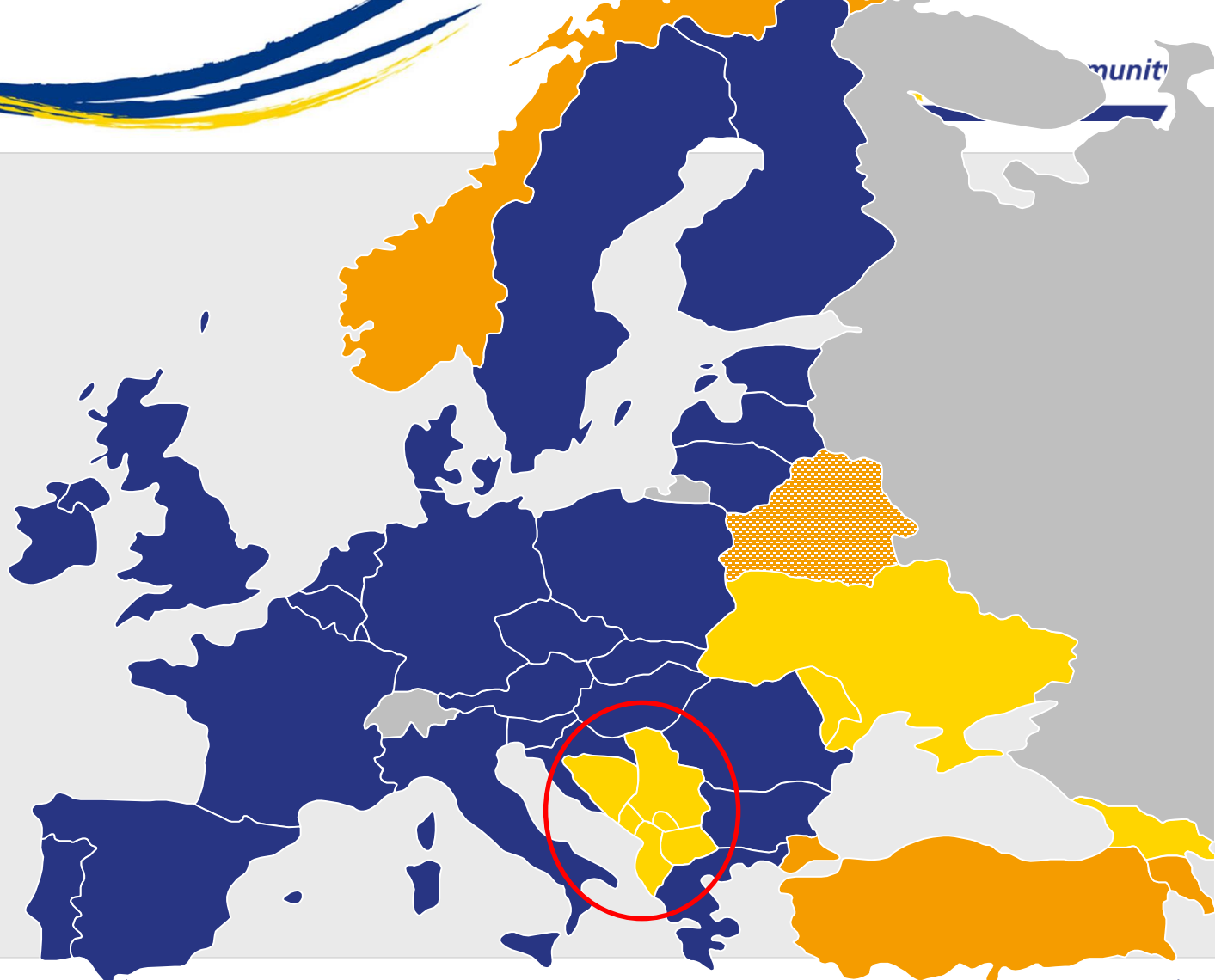
The background is a satellite-style image of Europe at night, with city lights visible. Overlaid on this are numerous glowing blue lines that represent an energy grid, connecting various points across the continent and extending outwards.

WB6 - Electricity Market Transition and Priority Infrastructure

11th SE Europe Energy Dialogue
Thessaloniki, 27 June 2018

WB6 market

- 2.5% of EU consumption
- The smallest WB6 market alone is 0.1% of EU consumption
- No effective market coupling

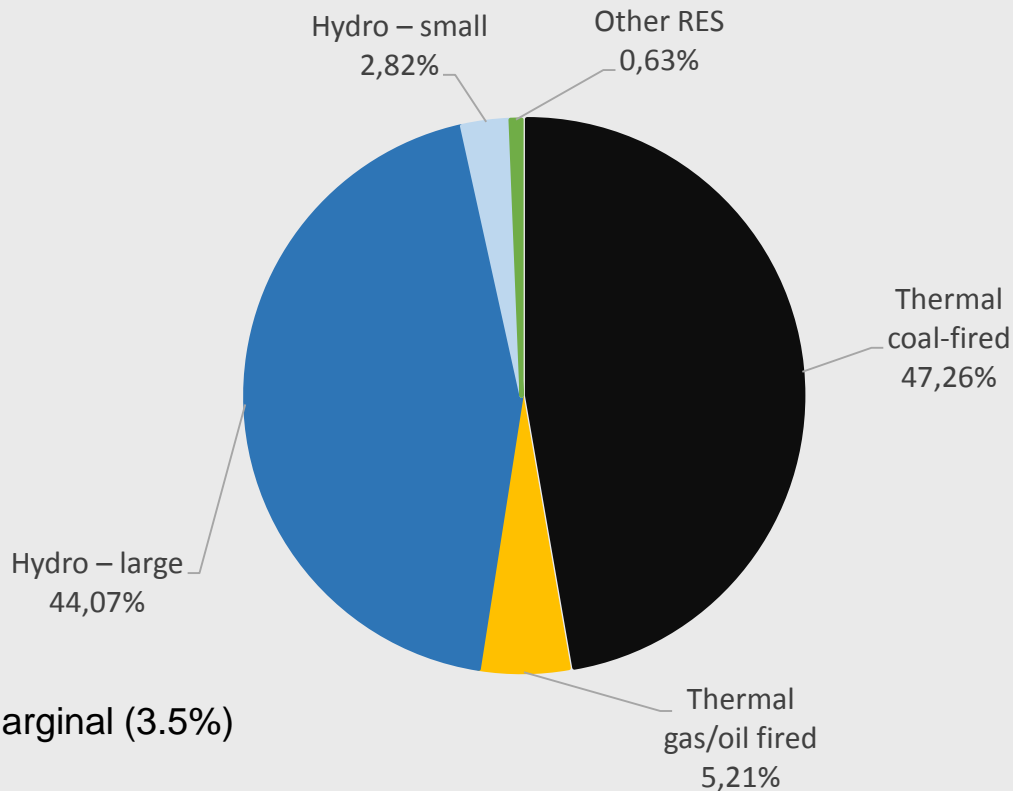




WB6 electricity production capacity (2016)

- Dominated by coal-fired (lignite) and large hydro generation
- Aged and obsolete
- Huge investments needed to comply with environmental standards
- Lignite remains the fuel of choice in most of the energy strategies

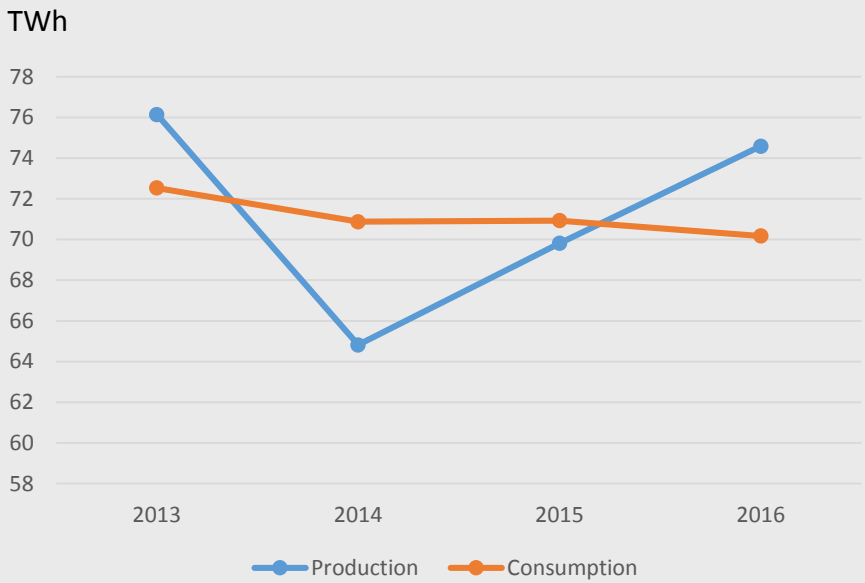
➤ Penetration of RES production is still marginal (3.5%)



Source: Energy Community Annual report

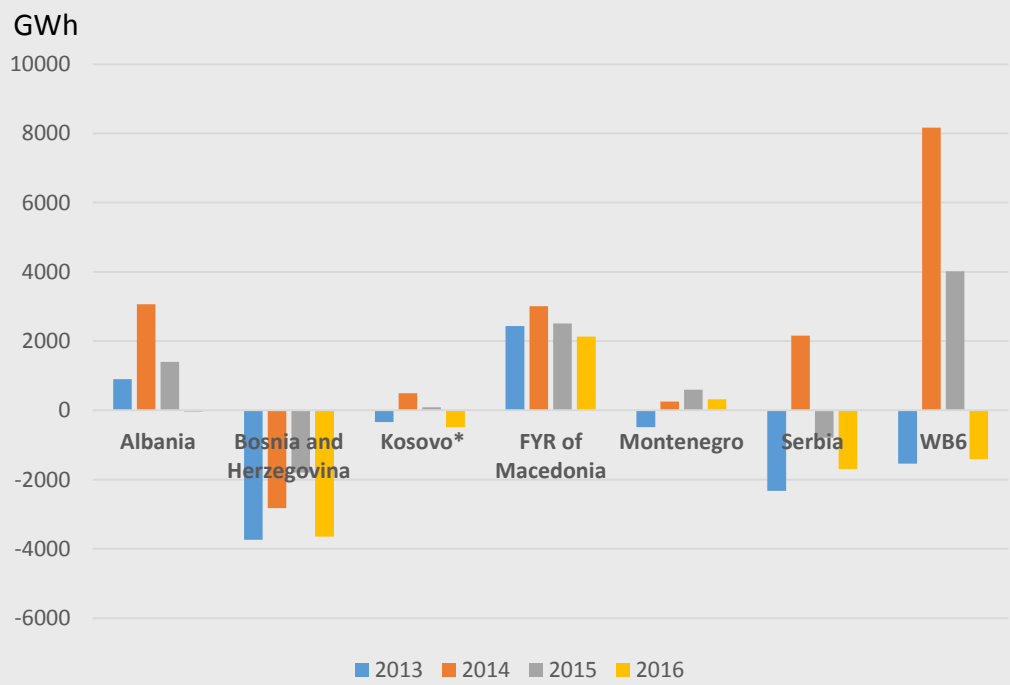


WB6 gross electricity balance (2013 – 2016)



➤ The region is basically net electricity importer

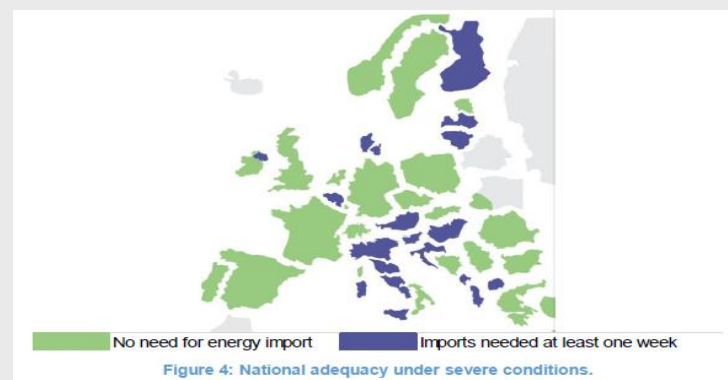
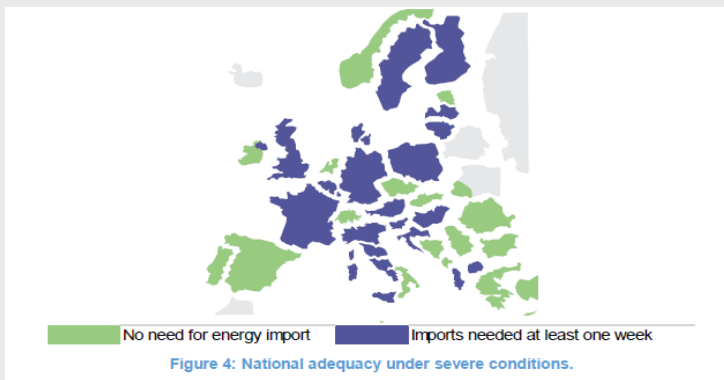
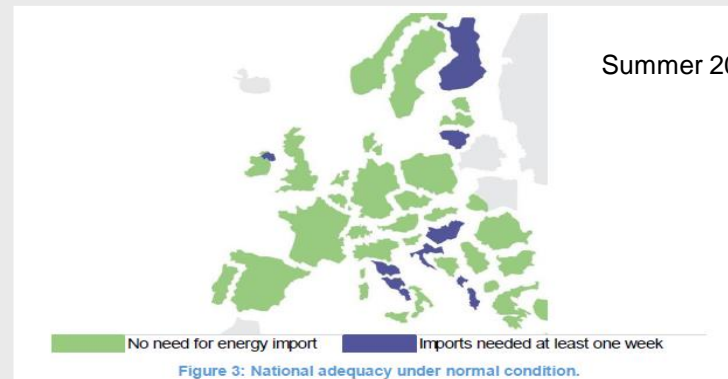
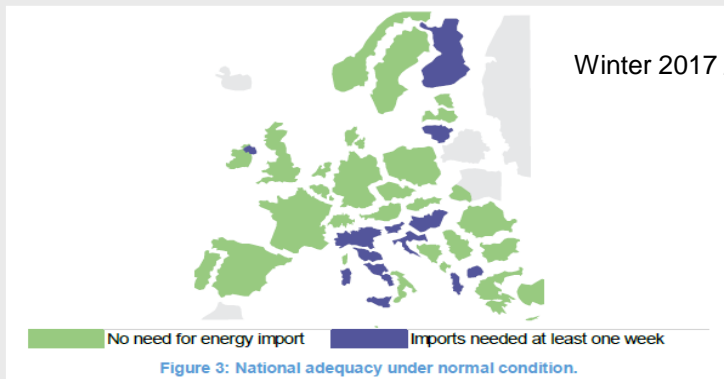
Net imports / exports (2013 – 2016)



Source: Energy Community Annual reports



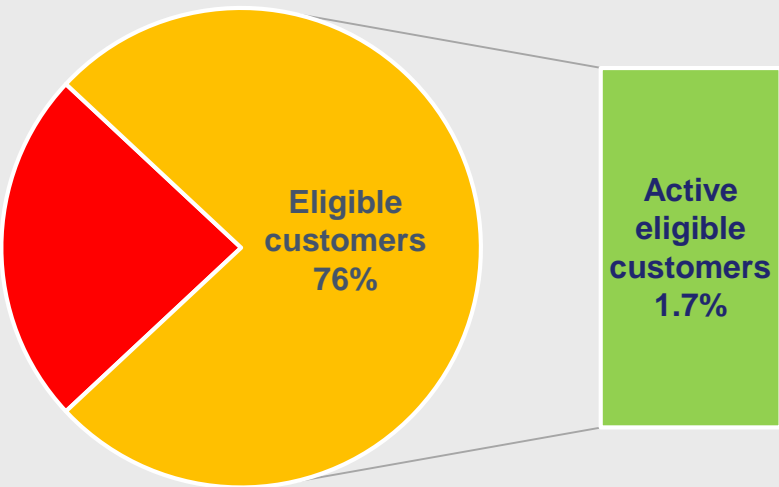
WB6 Generation adequacy



Source: ENTSO-E Outlook

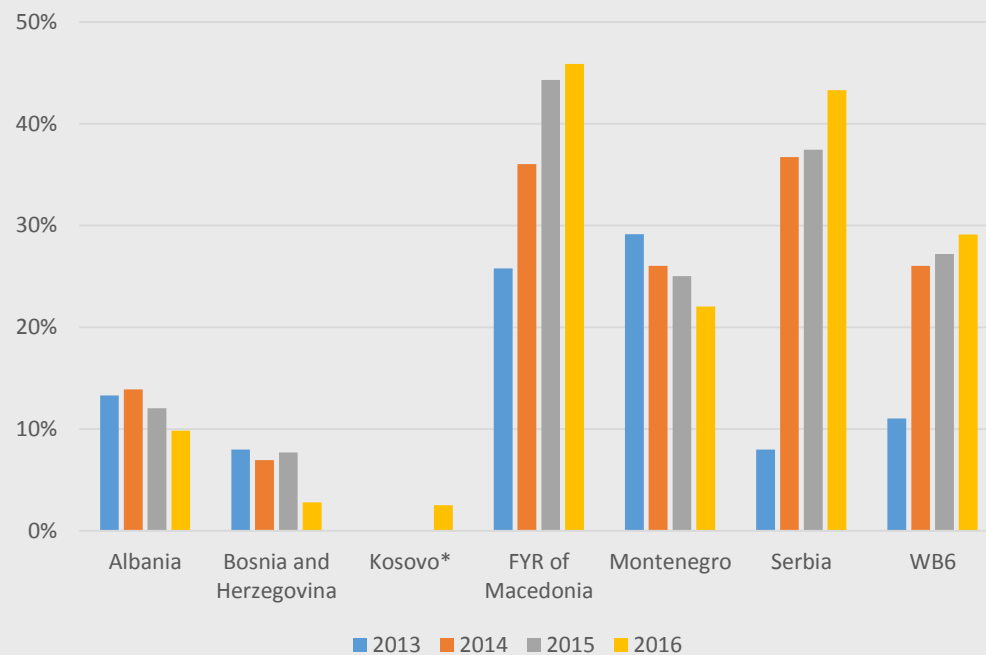


WB6 retail market (2016)



➤ Total number of customers: 7,97 million

Supply to active eligible customers (2013-2016)

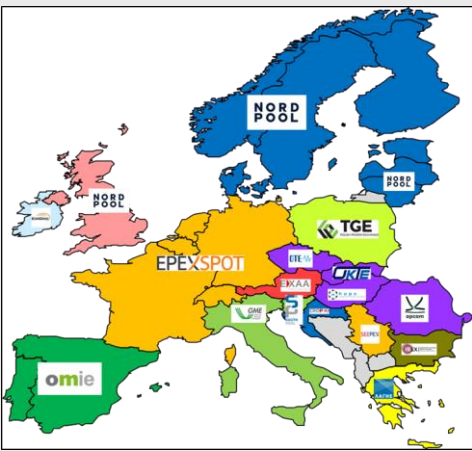
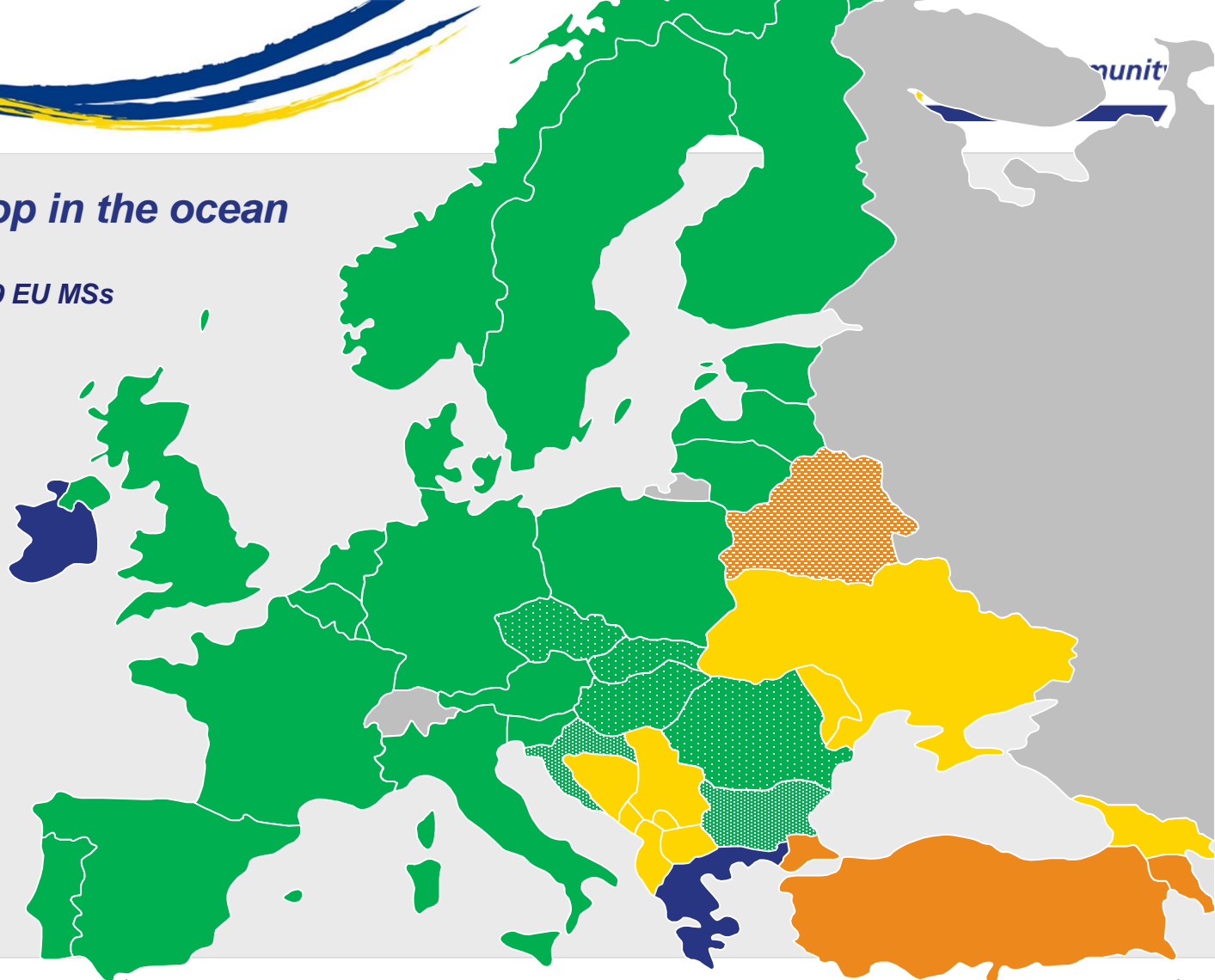


Source: Energy Community Annual reports

WB6 market – a drop in the ocean

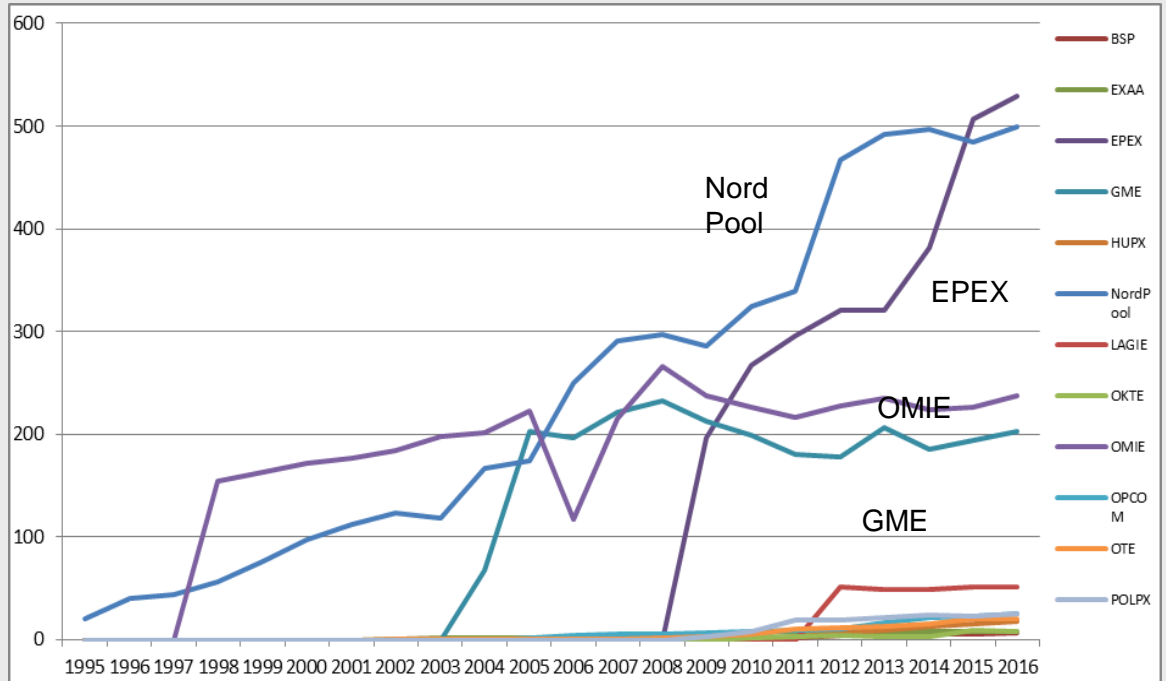
Multi-Regional Coupling – 19 EU MSs

- 85% of EU consumption

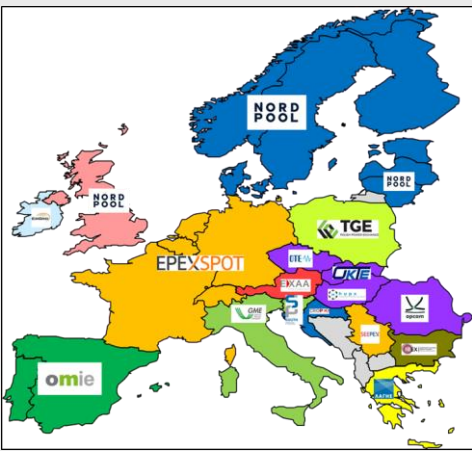


MRC - PX trading volumes (TWh)

- Both DA and ID traded quantities are rising
- Diversity across the Region

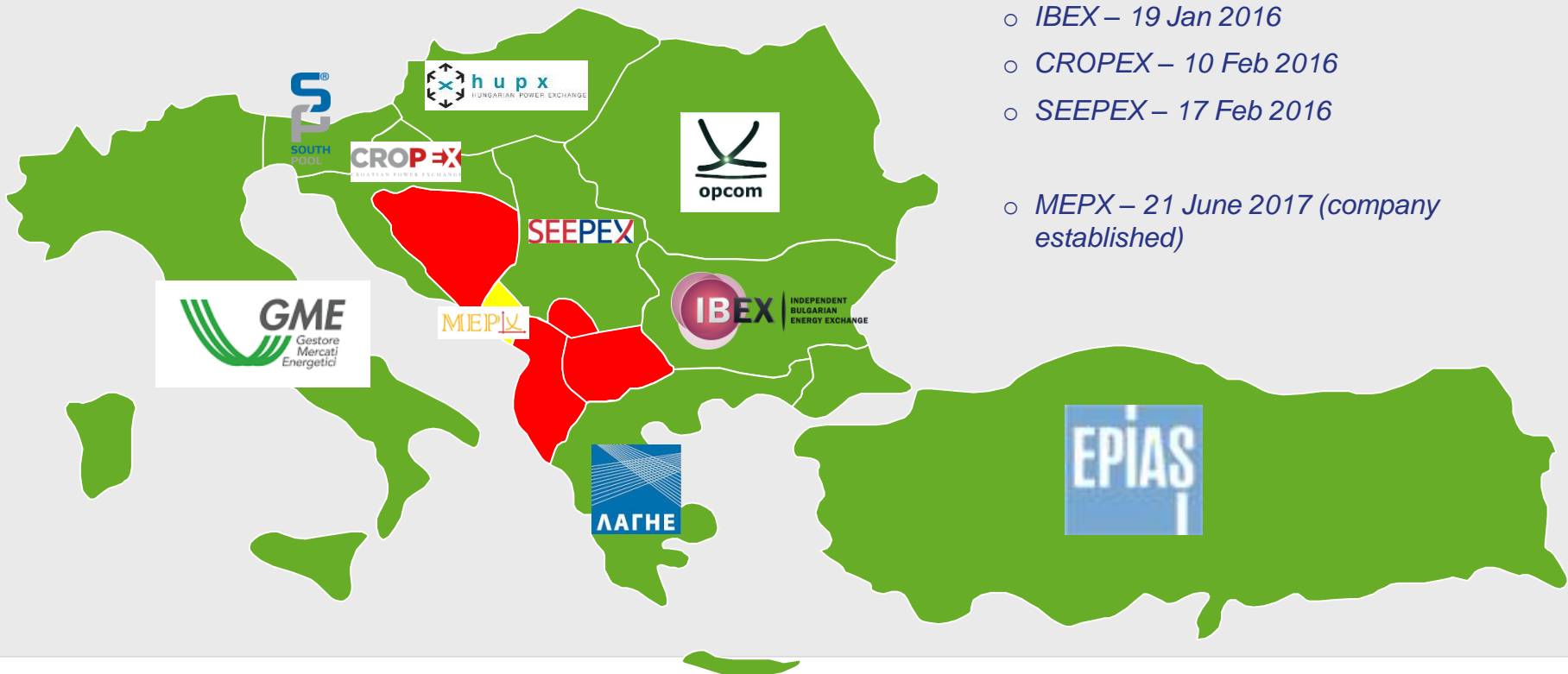


Source: PX Annual reports





Day-ahead markets in South-East Europe – expansion (2016)

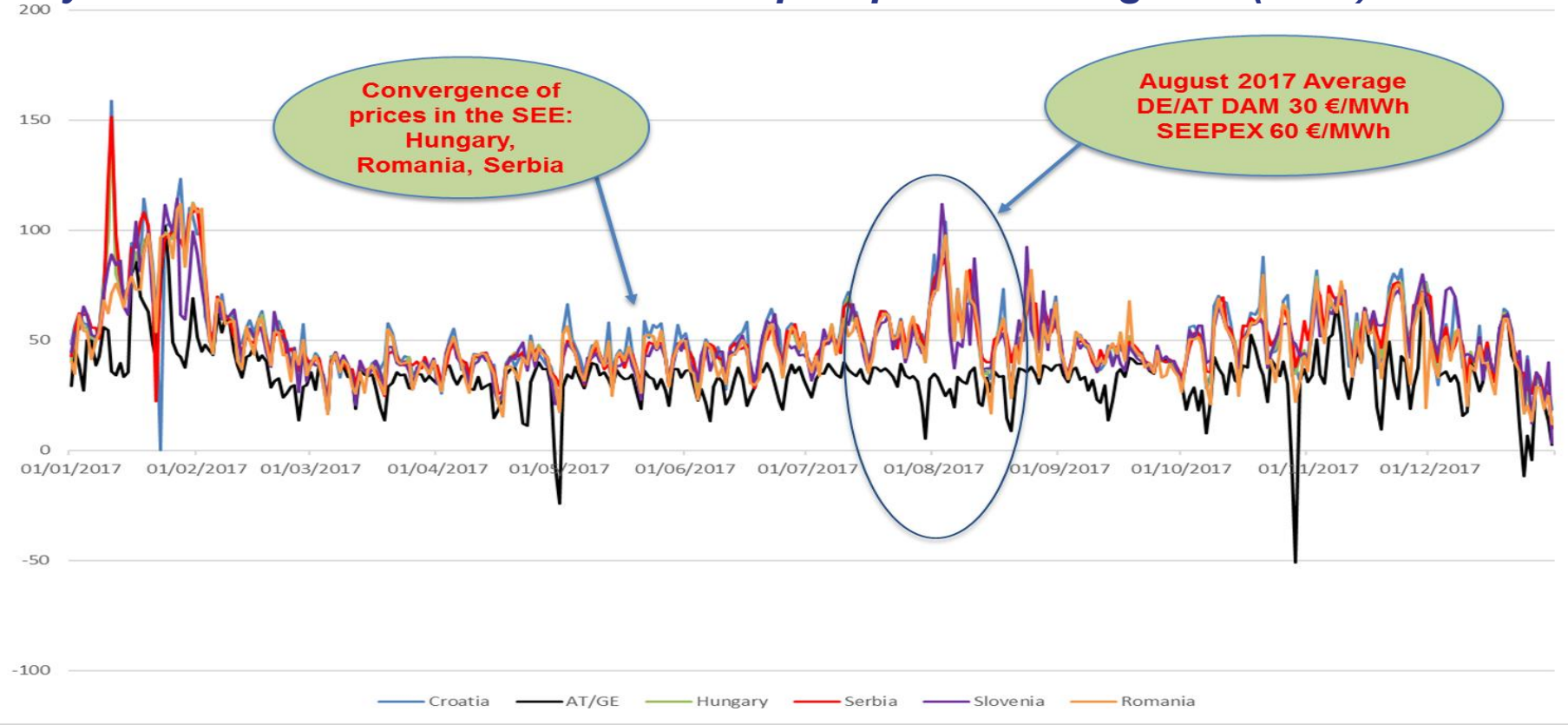


- IBEX – 19 Jan 2016
- CROPEX – 10 Feb 2016
- SEEPEX – 17 Feb 2016

- MEPX – 21 June 2017 (company established)



Day-ahead markets in South-East Europe – price convergence (2017)





Day-ahead markets in South-East Europe – market coupling (2018)

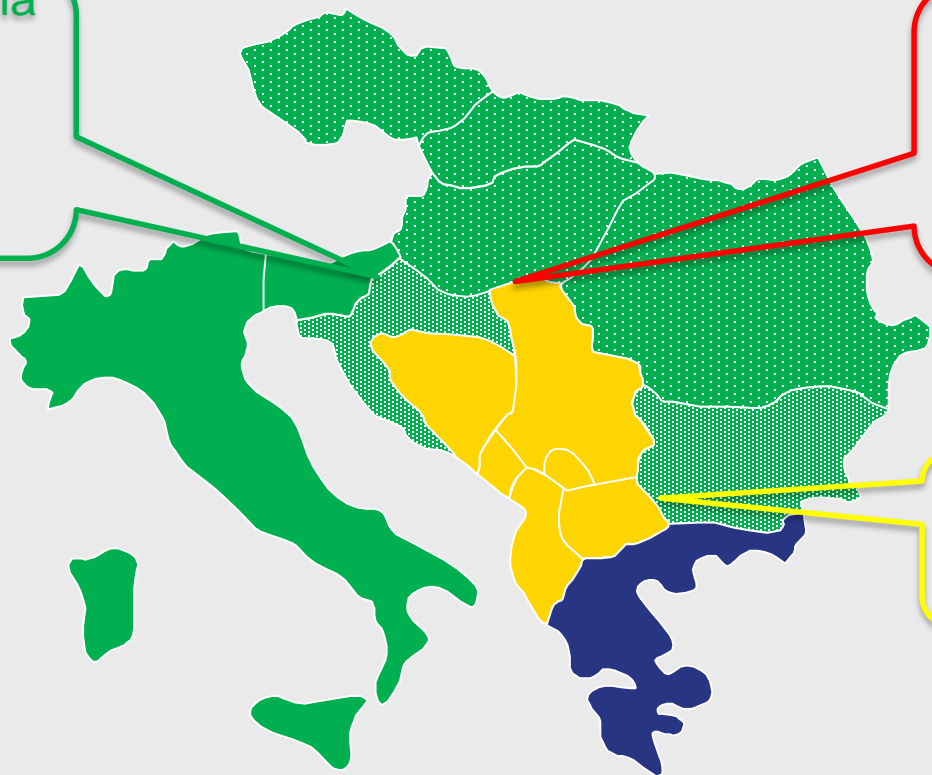
Croatia - Slovenia

19 June 2018
MRC MC

Serbia – 4 MMC

Pending since
June 2016

Bulgaria – FYR of
Macedonia
MoU (WB6 initiative)





**WB6
Regional
Electricity
Market**

A driver for Market Coupling



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



Set-up for an Organised Day-ahead market in Montenegro

Reality check: Power exchange company to be operational by 1 October 2016, strategic partnership to be established by 1 November 2016



BELEN established

Limited liability company with the task to establish a power exchange in MNE

Shareholders: the market operator COTEE, the TSO CGES and the incumbent utility EPCG

WB6 TA

WB6 Technical Assistance for:
 Evaluation of possible models of strategic partnership,
 Draft conditions and procedures for selection of a strategic partner,
 Draft tender documents

Procedure of selection of strategic partner launched

BELEN sent Request for Information (RFI) to potential bid providers

Strategic partnership to be established

Go-live of DAM

Depends on the agreement with a strategic partner



Set-up for an Organised Day-ahead market in Albania

Reality check: *The power exchange was to be fully operational as of 1 January 2018*



PSL Amended

Market operator responsible for organization and operation of DAM (Albanian Power Exchange (APEX))

Market operator to be established as a joint stock company (no new deadline defined)

Council of Ministers (CoM) decision to be adopted

*CoM to define:
The establishment, legal form and shareholders' structure of the market operator*

The procedures for the selection of shareholders (TSOs, IFIs and experienced international MOs) and specific criteria they shall comply with

Go-live of DAM

- To-dos:*
- Selection of shareholders*
 - Establishment of market operator*
 - Selection of service provider*
 - Implementation of DAM, C&S functions*

In March, OST invited TSOs of Kosovo, FYR of Macedonia and Montenegro to join*



Set-up for an Organised Day-ahead market in FYR of Macedonia

WB6 Technical assistance to the establishment of DAM finalized – proposed roadmap:



Energy Law adopted
 Government may decide, upon proposal of the NRA, and after obtaining an opinion of TSO, to appoint MO as an operator of an organised market or to launch a tender

MO to be spun out of TSO
 The Energy Law defines a deadline of three months upon adoption of the Law

Government decree on organized electricity market
 The Energy Law defines a deadline of six months upon adoption of the Law

Go-live of DAM
 *Based on the action plan proposed by the consultant under the WB6 Technical assistance to the establishment of DAM

WB6 Technical assistance to the establishment of DAM- Recommendations:
 The PX should be small, with a thin company structure, with domestic institutional ownership without foreign capital interest (at establishment) and with a cost effective service provider



Set-up for an Organised Day-ahead market in Bosnia and Herzegovina

Reality check: *The State Law on Regulator, Transmission and Power Market drafted in 2016, still not adopted*

WB6 Technical assistance to the establishment of DAM finalized – proposed roadmap:



WB6 Technical assistance to the establishment of DAM- Recommendations:
A “light” and inexpensive DAM to be established, with the main functions outsourced (service provider to be selected in a tendering procedure)



Day-ahead Market Coupling in Western Balkans

Starting point: WB6 Memorandum of Understanding on regional electricity market development

Signed by WB6 ministries, transmission system operators, national regulatory authorities and power exchanges and 15 EU MSs' stakeholders from all neighbouring EU MS.

WB6 MoU signatories agreed on a market integration process starting with market coupling of national organised day-ahead markets with at least one neighbouring WB6' or EU MSs' market by July 2018

WB6 DA MI PSC adopted WB6 Day-ahead Market Integration Program Road Map, which identifies regional projects which will lead to the coupling of national organized day-ahead markets between WB6 and with EU MSs by July 2018:

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 and Montenegro*
- 7. Albania – Greece Market Coupling*



Bulgaria – FYR of Macedonia market coupling project

- **Project kicked-off as part of WB6 MoU implementation**
- **Identified as a MC project under the WB6 Day-ahead Market Integration Program**
- *WB6 TA provided for the implementation of the project*
- **Objective:** market coupling between Bulgaria and Macedonia
- **Flagship project** for market coupling between a EU and non EU country in general



2 MoUs signed:

- ✓ *MoU between stakeholders (TSOs, PXs and NRAs)*
- ✓ *MoU between Ministries*



Bulgaria – FYR of Macedonia market coupling project

MoU between Ministries

- ✓ Provides **political support** to the market coupling between Bulgaria and Macedonia

- ✓ **Emphasis on:**
 - creating a legal and regulatory framework that will allow for market coupling between Bulgaria and Macedonia
 - bridging EU-EnC gap in market coupling by linking EU MS and EnC CP
 - joining the IEM and with it, create new business opportunities
 - Important references to CACM Guideline (principles), MRC (target), implementing entities' MoU

- ✓ **Commitment to:**
 - couple day-ahead electricity markets of the Parties until Q2 2019
 - go-live of the day-ahead market in Macedonia is a prerequisite.





Bulgaria – FYR of Macedonia market coupling project

MoU between stakeholders (TSOs, PXs, NRAs)

- *to couple Macedonian and Bulgarian day-ahead electricity market in an efficient and cost effective manner (The Parties have agreed to establish a project for the implementation of the goal of this MoU).*
- *to enhance the market integration in the SEE and WB6 region and to proactively apply market coupling.*

Organisation of cooperation:

- *group of high level representatives, equipped with certain delegated decision- making powers, of TSOs, NRAs and PXs (Project Steering Committee, PSC) go-live of the day-ahead market in Macedonia is a prerequisite.*
- *Project Team consisting of representatives of the TSOs, NRAs and PXs; its activities will be defined in separate “Terms of Reference” (ToR)*
- *relevant Working Groups for specific areas like technical, commercial, legal, regulatory and operational matters, based on needs defined by the Project Team.*





Albania – Kosovo* market coupling project

- *MoU on cooperating on the establishment and operation of APEX was signed between the Albanian and Kosovo* Ministries responsible for energy in November 2017*
- *MoU on day-ahead market coupling between TSOs and NRAs drafted and expected to be signed;*
- *MoU envisages **market coupling to be finalized by the end of June 2019***
- *Gap analysis ongoing with the aim to identify:*
 - *gaps in Market Rules, technical rules, market participation agreements, regulatory approaches to PX operation and the organised market*
 - *what is to be introduced into KS regulatory landscape in order to reach a sufficient level of harmonisation*
 - *best approach in aligning the legal and regulatory framework of AL and KS, including how the adoption of the necessary acts and provision could be done by ERO*





Bosnia and Herzegovina – Croatia market coupling project

- *Part of the project for MC of Bosnia and Herzegovina with HR, MN and RS as identified by WB6 DA MI roadmap*
- *CROPEX expressed its interest in receiving technical assistance for implementation of day-ahead market coupling between Croatia and Bosnia and Herzegovina in February 2018*
- *Service specification drafted by the consultant and submitted to the Ministry in charge of energy in BiH*
- *BiH is still considering the initiative of CROPEX*





Albania – Greece market coupling project

- *No activities on AL-GR Market coupling project were launched*
- *Greece is currently finalising national electricity market reform*
- *A new company Hellenic Energy Exchange (to be owned by Hellenic Stock Exchange, ADMIE, LAGIE and other shareholders) will operate electricity day-ahead market*
- *market coupling with neighbouring countries will require full implementation of the new law adopted in the beginning of 2018*
- *Greece is considering market coupling with Italy, Bulgaria and FYR of Macedonia*





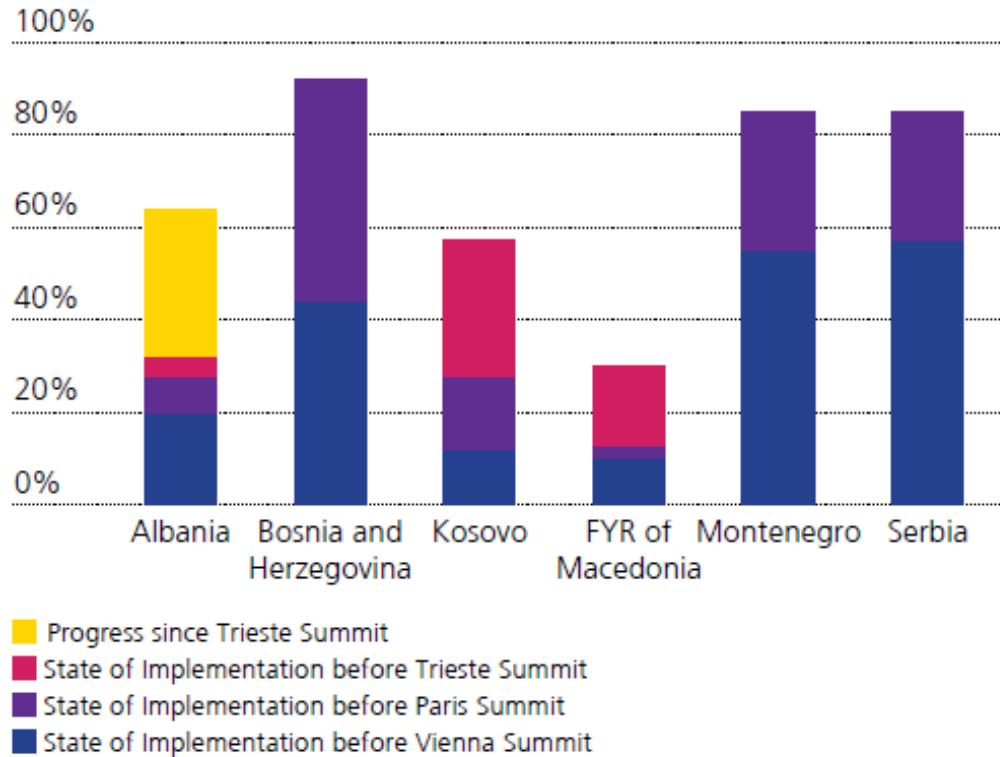
Montenegro – Serbia market coupling project

- *No concrete activities on ME-RS market coupling project were reported*
- *The project launch will probably depend on the selection of strategic partner in Montenegro*



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.



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 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:

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

CACM / FCA implementation

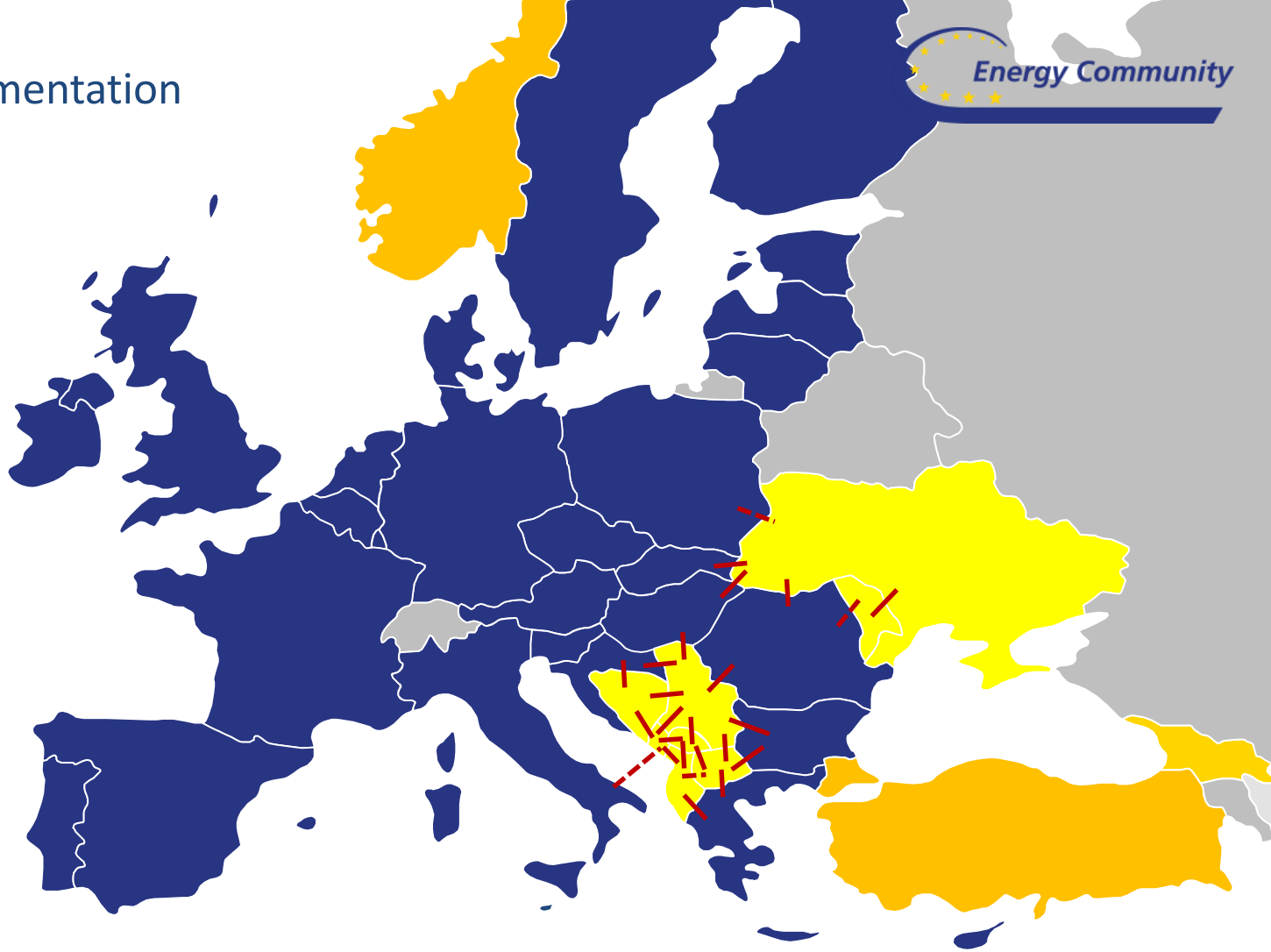
■ ■ EU CACM

■ ■ EnC CACM

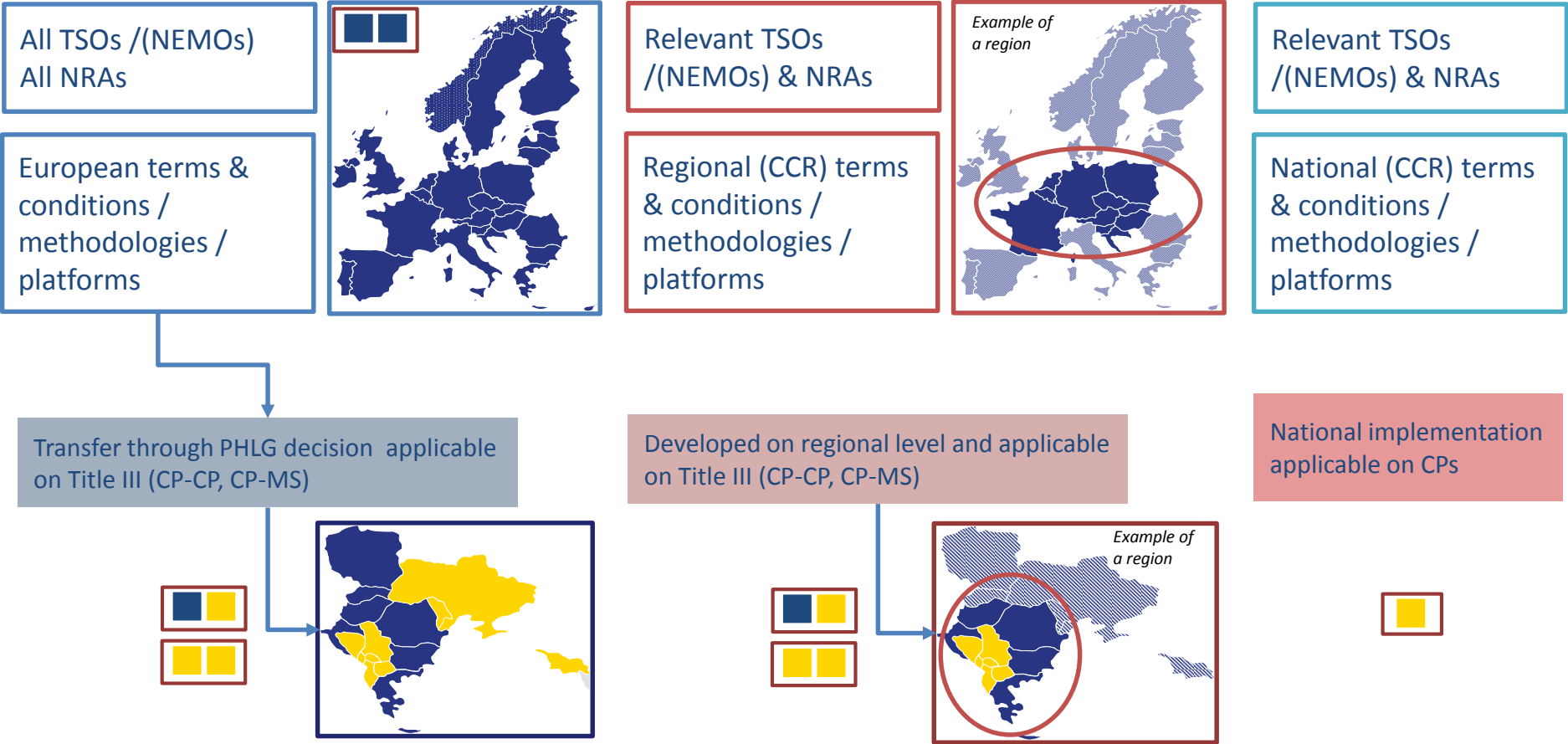
■ ■ EnC CACM

■ European Union

■ Contracting Parties



CACM / FCA implementation



Draft Preliminary Electricity PECI List

PECI	
Project Code	Project Name
El_01	Transbalkan corridor
a	New 400 kV OHL SS Kragujevac 2 (RS) – SS Kraljevo 3 (RS), with voltage level upgrade in SS Kraljevo 3 (RS) to 400 kV voltage level
b	New double circuit 400 kV OHL SS Obrenovac (RS) – SS Bajina Basta (RS) with upgrade of SS Bajina Basta (RS) to 400 kV
c	New 400 kV interconnection between SS Bajina Basta (RS) - Visegrad (BA) - Pljevlja (ME)
d	Transbalkan corridor - section in Montenegro (OHL 400 kV Čevo-Pljevlja, OHL 2x400 kV and 400 kV Lastva-Čevo, SS 400/110/35 kV Lastva)
El_02	400 kV OHL Bitola (MK) - Elbasan (AL)

Draft Preliminary Electricity PMI List

PMI	
Project Code	Project Name
El_06	400 kV OHL Vulcanesti (MD) - Issacea (RO)
El_07	400 kV Mukacheve (Ukraine) – V.Kapusany (Slovakia) OHL rehabilitation
El_09	750 kV Pivdennoukrainska NPP (Ukraine) – Isaccea (Romania) OHL rehabilitation and modernisation

