Electricity Market and Policy Development in the Energy Community

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Enlargement and Integration Action Workshop
The Future Role of Energy Storage in South Eastern Europe
Tirana, 22 October 2014
Energy Community Map

Treaty signed in 2005 (until 2016)
In 2014 - Extended until 2026

Energy Community Contracting Parties:

- Albania
- Bosnia and Herzegovina
- Kosovo*
- FYR of Macedonia
- Moldova
- Montenegro
- Serbia
- Ukraine

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Energy Community Secretariat

E&I Action Workshop The Future Role of Energy Storage in South Eastern Europe
Energy Community Principle Objectives

- Extending the **EU internal energy market** to South East Europe and beyond

- Creating stable regulatory and market framework for attracting **investment**

- Enhancing **security of supply** and **competition**

- Improving the **environmental protection**

- Bring the Contracting Parties closer to their **accession into the European Union**
EnC Legal Framework (EU Acquis)
Keeping Up the Pace With EU

➢ **3rd Energy Package Implementation deadline**
  ⇒ 1 January 2015

➢ **3rd Package Network Codes** – procedural acts for adoption in the EnC are in place

➢ **Extension of the electricity related acquis envisaged**
  • Regulation (EC) No 347/2013 (TEN-E) – to be adopted in the first half 2015 in order to facilitate implementation of PECI
  • Regulation (EC) No 543/2013 (Transparency)
Generation capacities installed in EnC (2013)

73 GW

- UA

17.5 GW

Thermal-gas; 9%
Nuclear; 19%
Hydro; 19%
Other RES; 2%
Thermal-oil; 0%
Thermal-coal; 51%
Hydro; 47.6%
Thermal-gas; 3.8%
Thermal-oil; 1.8%
Other RES; 0.2%
Thermal-coal; 46.6%

UA
Generation capacities – main characteristics

Main characteristics:

- Dominant coal thermal power plants (lignite)
- Aged and obsolete power plants – last commissioned in 1991
- Non-compliant with environment protection requirements – environmental upgrade needed

⇒ Huge investments needed
**Generation capacities – Renewable Energy Sources**

**New capacities in 2013**

**Only in RES:**

- **Small hydro – 90 MW**
  - Albania – 54 MW
- **Wind – 190 MW**
  - Ukraine
- **Solar – 400 MW**
  - Ukraine

**Total installed capacity in RES (end 2013)**
Generation capacities – large hydro power plants

Installed capacities in large hydro power plants:

- 13 GW (excl. UA 7.7 GW)
- 17% (excl. UA 44%)

Out of which hydro pump storage power plants:

- 1.9 GW (2.6%)
  - Bosnia and Herzegovina – 420 MW
  - Serbia – 614 MW
  - Ukraine – 861.5 MW
Production and consumption in EnC (2013)

Production: 253 TWh
Consumption: 243 TWh

In comparison to 2012:
Production increased 15%
Consumption decreased 0.8%

Energy sector: 2%
Non-residential: 41%
Residential: 38%
DSO losses: 12%
TSO losses: 3%
In 2013 in the Energy Community: Production higher than consumption!

⇒ Energy Community net exporter!

In 2013 (in comparison to 2012):

Net export increased 92%
Net import decreased 28%
Cross-border transmission capacities in the EnC

Transmission network fragmented:

- **EnC CPs which are part of ENTSO-E synchronous area Continental Europe (CE):**
  - Albania (not a member of ENTSO-E)
  - Bosnia and Herzegovina
  - Kosovo* (not a member of ENTSO-E)
  - FYR of Macedonia
  - Montenegro
  - Serbia

- **EnC CPs which are not part of synchronous area CE and not members of ENTSO-E:**
  - Moldova
  - Ukraine (except UA-W, so called Burstyn island)

⇒ **Cross-border interconnections are prerequisites for full EnC market integration**

- **ENTSO-E member**
- **Part of ENTSO-E CE synchronous area; not ENTSO-E member**
- **Not part of ENTSO-E synchronous area CE; not ENTSO-E member**
8th Region – a tool for market integration in the EnC

8th region aimed at:

- Implementing a common procedure for electricity transmission capacity allocation and congestion management at regional level
- Facilitating integration of national electricity markets
Electricity Market Development – EnC/EU target model

Regional electricity market

- National electricity market

Forward

Day-ahead

Intraday

Balancing
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Electricity Market Development – EnC/EU target model

- Regional allocation platform
- Regional day-ahead market
- Regional intraday market
- Balancing – target not defined
SEE CAO - Regional Capacity Allocation Platform:

- established on 1 April 2014
- 7 TSOs participating (HROTE, NOS BiH, CGES, KOSTT, OST, IPTO, TEIAS)
- First yearly auctions expected in November 2014

Current status

- Explicit NTC-based auctions
- Yearly and monthly auction on all interconnectors
- Weekly, daily and intraday on several interconnectors
- Common coordinated auctions between two TSOs applied on four interconnectors
- Split auctions on other interconnectors

⇒ Full regional coordination needed!
No regional day-ahead and intraday market platforms established

Day-ahead markets operational in most of the EU MSs participating 8th Region

- Hungary and Romania in 4MMC project
- Italy - Slovenia MC (to couple with)
- Croatia – PX establishment ongoing

EnC Contracting Parties activities on establishment of PXs

- PX establishment under consideration in most of the CPs
- EMS and EPEXSPOT signed principles of cooperation on the establishment and operation of Power Market Exchange in Serbia
No target for regional balancing market

National balancing markets undeveloped

Organized balancing market developed only in Serbia (with only one BSP so far)

Regional TSO activities on balancing cooperation started

SHB Block

SMM Blocks

KOSTT-OST

ECS launched a study on Impact assessment of regional balancing integration in SEE (in final phase)
Wholesale market in the EnC – main characteristics

Electricity production characteristics:
- Dominant state owned producers
- Public Service Obligation (PSO)
- Regulated prices

Wholesale market:
- Nationally oriented
- Lack of competition
- Lack of liquidity
- Lack of market price signal

⇒ Divergence of wholesale prices

Source of data: ERRA database
Balancing market in the EnC – main characteristics

**Balancing market:**
- Regulated (dominantly)
- Market-based (Serbia only)

**Balancing services provision characterised by:**
- Lack of market-based mechanism (regulated tariffs, lump sum)
- Lack of non-discriminatory and transparent rules
- Lack of balance service providers
- Lack of balancing reserve
- Lack of balance responsibility obligation established
- Lack of reference price for imbalance settlement
- Socializing the costs of imbalances (lack of cost-reflectivity)

**Needed:**
- Implementation of non-discriminatory and market-based balancing rules
- Regional balancing cooperation
Retail market in the EnC – main characteristics

Retail market characteristics:

- Low level of market opening
- Regulated prices
- Lack of competition

![Retail price 2 Q 2008-2013](image)

**Source of data:** ERRA database
Retail market opening in the EnC – progress in 2014

Number of customer:
28.975.662
- MD-UA
7.791.885

households 89,5%
non-households 10,5%
non-eligible 28%
eligible 72%

4500 customers ⇒ 0,8% eligible customers

active
Barriers to development of electricity market – Regulated prices and PSO

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**Excessive Public Service Obligation:**

- **Production of electricity**
  - Compulsory production for needs of tariff customers
  - Compulsory sale of electricity under regulated prices
- **Supply of electricity**
  - Obligation to buy electricity from the regulated producer
  - Obligation to sell electricity to tariff customers under regulated prices
Barriers to electricity market development – Legal and regulatory framework

Legal and regulatory framework not properly address:

- establishment of power exchanges (day-ahead and intraday electricity market)
- Establishment of balance responsibility and financial settlement of balance responsible parties on non-discriminatory and market-based principles
- Supplier switching
- Mutual recognition of trading licenses
- VAT harmonization
- Protection of vulnerable customers
- Regional cooperation
- Regulatory independence
3rd Energy Package transposition into national legislation – main ongoing activity in the EnC CPs

Energy sector legislation currently based on:

- 2nd Energy package
  - fully transposed in most of the EnC CPs
  - not fully implemented

Ongoing activity in all EnC CPs:

- 3rd Energy Package transposition
  - Unbundling
  - NRA strengthening
  - Customer protection
  - Regional cooperation
  - Network Codes (procedure for adoption in EnC in place)

⇒ 1 January 2015 transposition deadline
Network Codes key objectives

! Harmonization:
- Network codes and
- Market rules

! Cooperation:
- System operators
- Market operators
- System users and
- NRAs

! Coordination:
- At least on the regional level

Towards integrated electricity market…
Energy Community – Investment environment

- Attracting investments is one of Energy Community objectives
- Private investments far below the level expected
- Investors Advisory Panel – twice a year in the ECS
- Investment challenges identified:
  - political interference
  - unstable legal and regulatory framework
  - lack of well-functioning national and regional electricity markets
  - low energy prices
Energy Community Strategy and PECI projects

Energy Community Strategy developed in two phases:

- **Energy Community Strategy Paper** - endorsed by the MC in 2012

- **List of Projects of Energy Community Interest (PECI)** - endorsed by the MC in 2013
  - 14 electricity generation projects
  - 9 electricity transmission infrastructure
  - 10 gas infrastructure
  - 2 oil infrastructure

- PECI - projects of regional significance – expected to provide added value in a specific energy sector from a regional perspective
PECI Electricity Generation – 14 projects

BA+RS – 1 (2)

BA – 2

BA+HR - 1

ME - 1

RS - 6

KS – 1

AL - 2
PECI Electricity Transmission – 9 projects
Stimulating Investments in the Energy Community

Actions needed for increasing investments:

- Enhancement of project preparedness
- Harmonization of permitting procedures and criteria
- Additional financial and technical support
  - Public Private Partnership
  - Creation of an Energy Community Risk Enhancement Facility
  - Extended use of IPA II Grant Funds

➢ Current status – only few projects have reached the status of investment decision or their construction has started
The High Level Reflection Group of the Energy Community issued a report in May 2014:

An Energy Community for the Future - Main findings:

- Success story but needs improvement to achieve goals

- Shortcomings:
  - Lack of implementation by the EnC CPs
  - Lack of private investments
  - Lack of flexibility
  - Too narrow scope
  - Weak enforcement mechanisms

- Recommendations: legal perspective, investments, geographical scope, institutional set-up
Priorities of the Energy Community in 2015:

- Implementation of the 3rd Energy Package in the EnC CPs
- Electricity market integration in line with the Electricity Target Model
- Adoption of the new acquis
- Reform of the Energy Community in line with the recommendations of the High Level Reflection Group Report and co-creation of the Energy Union
Thank you for your attention!

www.energy-community.org