Executive Exchange on Coordinated Cross Border Transmission of Electricity – an Examination of the European Union

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Energy community & the Athens Forum

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South East Europe: Energy Community Treaty.


Wholesale Market: Joint SEETEC – ECRB conclusions.

SEE; energy and capacity trade: target of the market based methods.

Coordinated Explicit Auctions. Dry Run & CAO.

Inter TSO compensation mechanism

ITC - Evolution
The Treaty establishing the Energy Community in South East Europe

- entered into force in 1 July 2006;
- signed in 25 October 2005 by the European Union and by the following States from the South East Europe: Republic of Albania, Republic of Bulgaria, Former Yugoslav Republic of Macedonia and UNMIK, Republic of Romania, Republic of Croatia

- Since 1st January 2007 Romania & Bulgaria are represented by EC, being EU members

The signatory countries committed to implement the acquis communautaire on energy, environment, competition and renewable.

The ECSEE acquis when the Treaty signed was related to the EU legislation: (EC) 54/03 Directive and (EC)1228/03 Regulation.

This decision is addressing a perimeter containing the Adhering Parties, the territory under the jurisdiction of the United Nations Interim Administration Mission in Kosovo, the territories of EU members: Bulgaria, Greece, Hungary, Romania and Slovenia, Italy with regard to the interconnections between Italy and the Adhering Parties by asking a common coordinated congestion management method and a procedure for the allocation of capacity to the market at least yearly, monthly and day-ahead to be applied by not later than 31 December 2009.
Ministerial Council: the political level body
Takes key decisions on the Energy Community’s policies and formally adopts its rules

Permanent High Level Group: shadows the work of the Council Energy Working Group
Gives guidance within their competence given by the ministerial
Brings together senior officials from each partner
Ensures continuity and follow-up of the political meetings of ministers
Decides on implementing measures in some cases

Energy Community Regulatory Board (ECRB): regulators from each adhering party and from EU (CEER, ERGEG).
Advises the Ministerial Council or the Permanent High Level Group on the statutory, technical and regulatory rules
Issue Recommendations on cross-border disputes involving two or more Regulators, upon request of any of them
Take Measures, if so empowered by the Ministerial Council and adopt Procedural Acts

Regulatory Electricity Forum (The Athens Forum)
Shadows the Florence Forum process
Two times per year, the meetings of the Athens Forums gather main stakeholder entities in the electricity field:
ministries, TSOs, regulators (NRAs, CEER and ERGEG), market operators, associations (UCTE, ETSO, EUROPEX,
EURELECTRIC and EFET), consultants (CONSENTEC, Pierce Atwood, PWC, Potomac Economics, REKK etc).
Conclusions, agreed by consensus, go to the Permanent High Level Group

The Energy Community Secretariat (ECS)
Assists the European Commission in its tasks to assure the Energy Community process co-ordination on a daily basis
Serves as a monitoring institution
Responsible for ensuring the Energy Community’s budget is correctly spent and accounted for.
Provide administrative support to MC, PHLG, ECRB and the Forums
Review the proper implementation of the obligations under the Treaty and submit yearly progress reports to the MC
Review and assist in the coordination by the European Commission of the donors’ activity
Adopt procedural Acts
Wholesale Market: Joint SEETEC – ECRB conclusions

- Wide range of wholesale supply prices (regulated or open market) – from 24 to 80 Euro per MWh
- Recently (2007) – illiquidity and high prices (70-90 Euro/MWh).
  - possible reasons:
    - electricity lack in SEE region;
    - transmission capacities shortage;
    - non-adequate transparent transmission capacity allocation;
    - generation capacities maintenance;
    - Kozloduy2 units closure in January 2007;
    - public procurement rules.
- Low free wholesale market activity in SEE region, except in Romania.
- OPCOM in Romania, and 4 PXs in EU border countries (2 Voluntary: Slovenia/Austria, 1 Mandatory Pool: Greece and 1 Hybrid: Italy).
- Low volumes for Voluntary exchanges but growing in Romania: 7.9% of total volume in 2006 (4.11 TWh); Average price: 44.81 Euro/MWh.
- Difficult to participate for foreign participants.
- Wide range of regional prices in Day Ahead Markets.
- Most cross-border trade is handled by traders –contracts with utilities/TSOs–no imbalances.
- Most trading is based on base load products –traded in band for day, week or month.
- Tendering procedures in place in many countries with (sometimes) complex procedures; no optimization and expensive.
- Lack of electricity in SEE region caused bilateral agreements and huge electricity flows from North to South.
- Increased interconnection usage and reliance on export-import for Wholesale Market development will lead to both National Wholesale Market and Regional Wholesale Market development, but dominant players in each country seems to be the preferred option by the national governments.
- TSOs started to allocate interconnection capacities based on market methods.
SEE; energy and capacity trade: target of the market based methods

Marginal costs SEE ignoring congestions, end 2006

Marginal costs SEE ignoring congestions, end 2007

Peak Demand in SEE CB capacity allocation schemes in SEE

Average monthly SEE NTCs in 2007
**History**

- Dry Run: SEE TSOs practice coordinated flow-based auctions through monthly simulations, without clearing or payments
- Simulations started in January 2006
- TSOs acted initially as themselves (calculate PTDF, BC and as market actors (send bids)
- Neighboring TSOs (HR, SI, HU, AT) participated in load flow model preparation
- Each company acted as CAO on a monthly rotation

**State of Play**

- Classical Border Capacity approach failed while small and even negative BC figures occurred, network utilisation resulted low and transparency was limited
- New method (Max.Flow) proposed by consultants: critical elements represented, MFs and PTDF factors for each critical branches
- Several allocation rounds conducted with optimistical results; additional analysis required, huge PTDF/MF matrices, additional software required
- Auction income sharing in debate: several methods discussed
- Geographic scope depending on SEE perimeter (defined in 27.06.08) and TSOs willingnes;
- Business Plan in ongoing development: existing one not approved, input from TSOs
- Dry run: Croatia joined dry run since September 2007, Hungary in expectancy, Italy intends to join, Slovenia applied with Croatian opposition, Kosovo applied with Serbia opposition
**Inter TSO compensation mechanism**

**Reasons**

- European states’ energy dependency of the primary energy resources from imports is increasing
- A single internal electricity market (IEM)
- Cross-border trades have significantly increased (in particular for SEE)
- Physical flows differ from contractual ones (highly meshed network)
- Increased transit means increased network losses and increased network usage
- ITC Mechanism was initially introduced to replace multiple border tariffs and to increase the efficiency of the IEM (Internal Electricity Market).

**Features**

The mechanism remunerates European transmission network usage by transits, meaning:
- compensation of the effects of the national transmission network usage by transits generated by external trades;
- compensation of the increased network losses generated by transits

**Key principles for costs allocation**

- To reflect the costs – involve a simple approach
- To not be based on trades – require explicit complex approach

**Legal basis for a mandatory ITC mechanism**: the adoption of EC Regulation 1228/2003 from 1 July 2004
First CBT mechanism was applied starting with 01.03.2002 for part of member states at that time.
Eight members of ETSO signed the first voluntary Inter-TSO compensation (ITC) agreement in 2002.
In the Interim ITC Agreement June – December 2007, 28 countries participated.

Two similar mechanisms: ETSO ITC and SEE ITC for two separate UCTE zones
Two similar mechanisms: ETSO ITC and SEE ITC for two zones interconnected
Thank You for attention