

SEE Market Monitoring Pilot Project Design Workshop

November 16, 2006

Brussels

(Albanian TSO - ATSO)

Response to Market Monitoring Design Concept Proposal

- Designing of an “Open Website, but secured (Data Survey)” for all the Participants of the Market where each of them must be obliged to publish information and data that are with interest for the others.
- Further development of market activity through bilateral contracts executed at prices negotiated between individual sellers and buyers.
- For the SEE we should consider immediate designing of an open but centralized market treating it is pool with necessary information for an open market.
- Through market monitoring to facilitate the development of non-discriminatory open-access transmission and market transparency, needed for the establishment of a competitive regional electricity market.

Data for Market Monitoring

- TSOs must exchange regularly a set of sufficiently accurate network and load flow data in order to enable load flow calculations for each TSO in their relevant area. The same set of data must be available to the Regulatory Authority.
- A description of the procedures to purchase and reserve interface capacity, together with the times and procedures for applying for capacity. A description of the obligations and rights of both the TSOs and the party obtaining the capacity, which must be described in detail and made transparently available to all potential network users by TSOs.
- The operational and planning security standards must form an integral part of the information that TSOs publish in an open and public document. This document must also be subject to review by National Regulatory Authority.
- Offers for electricity (quantity and long/short terms periods for available quantities)
- Demands for electricity (quantity and long/short terms periods)
- Information about possible congestions

Data Collection

- Except above mentioned information the site, may be, will have and other information.
- The information must be updated in real time from each participant.
- The format could be any general format as Excel and/or .pdf

Interface Capacity

Data Description	TSO Comments
<p><i>For each “cross-border” interface :</i></p> <p>Forecasts of total interface capacity for monthly service.</p> <p>Monthly reservations (other than committed use) for twelve months beginning December 2006.</p> <p>Forecasts of available interface capacity for monthly service for twelve months beginning December 2006.</p>	<p>ATSO used till now Pro Rata Method and Priority List to harmonize congestion management in interconnection lines.</p> <p>Mean time ATSO the last year has take part in Dry-Run Project of Coordination Auction, a Method of Explicit Auction. Coordination Auction is common coordinated congestion management method and procedure for the allocation of capacity to the market at least yearly, monthly and day-ahead and shall be applied between countries in the predefined regions of EU.</p> <p>ATSO intend to use the same procedur and for the next year, so Coordination Auction for coordinate congestion management method and procedure for the allocation of capacity to the market at least yearly, monthly and day-ahead.</p>

Transmission Requests

Data Description	TSO Comments
<p>List of refused transmission requests for the month and daily including amount of requested capacity, requested start time and requested end time;</p> <p>List of approved transmission requests for the monthly and daily service including amount of requested capacity, requested start time and requested end time;</p>	<p>There is no refused transmission requests.</p> <p>The request for transmission capacity is done monthly from licensed companies.</p> <p>Companies licensed for electricity trade in Albania so far are:</p> <ol style="list-style-type: none">1. KESH sh.a. [10XAL-KESH---J]2. GSA ltd3. Wonder Power4. Darfo-Albania <p>Companies (not licensed) that are allowed to participate in cross-border allocation procedure are the counterpart (contractors) of the above licensed companies</p>

Congestion Management

Data Description	TSO Comments
<p>A general description of congestion management procedures.</p> <p>For the past 60 days, instances of when congestion management procedures were implemented on any interface administered by the TSO;</p>	<ul style="list-style-type: none">•It is in study process (dry-ran period) the implementation of a common methodology of congestion management procedures on regional level (SETSO).•According the model are considered past 30 day instances

Congestion Management

Albania (ATSO)- Greece Both Direction W,M,Y
Priority list Unilateral

Principle applied "Use it, or loose (sell) it". Possibility for re-selling of the capacity
Usage of the common network model for capacity calculation.

Albania (ATSO)- Montenegro Both Direction M
Pro Rata (AL part) split 50:50

Principle applied "Use it, or loose (sell) it". Possibility for re-selling of the capacity
Usage of the common network model for capacity calculation.

Albania (ATSO)- Kosovo Both Direction M
Pro Rata (AL part) split 50:50

Principle applied "Use it, or loose (sell) it". Possibility for re-selling of the capacity
Usage of the common network model for capacity calculation.

Interface Allocation

Data Description	TSO Comments
<p>A detailed description of the calculation of interface capacity based on the electrical properties of the system.</p> <p>A description of the interface capacity products that are available to third party users of the TSO system.</p> <p>A description of the procedures to purchase and reserve interface capacity.</p>	<p>The common load flow model of SEE region is produced by an exchange and merging procedure of the TSOs equivalent models. The exchange procedure of all data related to the common load flow model of the SEE region has to be made by email.</p> <p>Fifteen (15) days before the deadline for BC and PTDF evaluation, the base case forecast models of the power systems listed above for the third Wednesday of the month M 10:30 CEST have to be exchanged in UCTE format. Lists for increasing/decreasing of the generation, of the power systems and data about the maintenance programs of the power systems for the investigated period has to be exchanged too. In case that some TSOs apply the proportional shifting of the power plants according to the power reserve instead of lists, in UCTE format the actual available Pmin [MW] and Pmax [MW] should be specified in an appropriate columns of UCTE format. Each change in topology of the model or in the number of nodes and branches and the names of nodes has to be announced before the change</p>

Transmission Expansion

Data Description	TSO Comments
<p>A list of planned system expansion projects.</p> <p>The underlying analysis supporting projects.</p>	<ol style="list-style-type: none"> <li data-bbox="940 488 1984 906"> <p>1. 400 kV line Tirana – Podgorica (KFW financing)</p> <p>400 kV overhead line, Tirana 400/220/110 kV substation - Podgorica 400/110 kV substation, approximately 156 km including two line bays in Elbasan and Podgorica substation.</p> <p>The loan is effective from last year and now its undergoing the bidding process.</p> <li data-bbox="940 914 1984 1328"> <p>2. 400, 220 and 110 kV lines (Italian financing)</p> <p>400 kV overhead line, Tirana 400/220/110 kV substation – Elbasan 400/220/110 kV substation, approximately 50 km.</p> <p>Construction of new 110 kV line: Tirana 2 400/220/110 kV substation - Selite 110/20 kV substation, 400/220/110 kV Tirana 2 substation - Kashar 110/20 kV substation and one new 110 kV line bay.</p>

Transmission Expansion

Data Description	TSO Comments
<p>A list of planned system expansion projects.</p> <p>The underlying analysis supporting projects.</p>	<p>3. 400/220/110 kV Tirana 2 substation</p> <p>(Italian financing)</p> <p>400/220/110 kV substation in Tirana with 2x300 MVA transformers on the 400/220 kV side and 2x120 MVA transformers on the 220/110 kV side.</p> <p>4. New National Dispatch Center</p> <p>(Italian financing)</p> <p>New National Dispatch Center for the Albanian Transmission Network to be constructed. The new buildings of the national Dispatch Center and Albanian Transmission System Operator to be constructed in Tirana.</p> <p>.</p>

Transmission Expansion

Data Description	TSO Comments
<p>A list of planned system expansion projects.</p> <p>The underlying analysis supporting projects.</p>	<p>5. 400 kV line Tirana – Prishtina</p> <p>400 kV line from 400/220/110 kV Tirana 2 substation up to Kosovo B substation around 240 km. The line will be stringed in the existing towers from Tirana to Vau Dejes and a new line will be constructed from Vau Dejes up to Prishtina.</p> <p>The feasibility study and environmental study has been conducted by CESI under a World Bank financing and the financing is requested.</p> <p>6. Interconnection line FYROM - Albania – Italy</p> <p>400 kV overhead line from 400/220/110 kV Bitola substation up to Vlora substation around 220 km.</p> <p>Construction of the new AC/DC substations in Vlora and Brindisi. Construction of new submarine cable from Vlora substation up to Brindisi substation approximately 85 km.</p> <p>The feasibility study is under preparation and financed by EBRD.</p>

Transmission Expansion

Data Description	TSO Comments
<p>A list of planned system expansion projects.</p> <p>The underlying analysis supporting projects.</p>	<p>7. South West Power Transmission and Distribution Project</p> <p>Construction of new 110 kV line Vlore - Sarande approximately 95 km including two line bays.</p> <p>The Project must be associated to the construction of two 110/20 kV new substations of Himara and Orikum.</p> <p>8. South East Power Transmission Project</p> <p>Construction of new 110 kV line Erseke - Permet approximately 40 km including four line bays.</p> <p>Demolition and construction of e new line 110 kV approximately 40 km Korce - Erseke</p>

Transmission Expansion

Data Description	TSO Comments
<p>A list of planned system expansion projects.</p> <p>The underlying analysis supporting projects.</p>	<p>9. North East Transmission Project</p> <p>Construction of new 220/110 kV Substation in Koman.</p> <p>Construction of new 110 kV line Fierze - Kukes approximately 50 km including two line bays.</p> <p>Construction of new 110 kV Koman - Fush Arez approximately 24 km including three line bays.</p>

TSO Operations

Data Description	TSO Comments
Hourly physical power flows on external interfaces. Actual scheduled power hourly flows on external interfaces.	<ul style="list-style-type: none">•Average hourly physical power flows on external interfaces according to lines depending the days, varies as follow: line 1 (400kV): 200 MW-70 MW line 2 (220kV): 100 MW-20 MW line 3 (220kV): 90 MW- 15 MW Actual: line 1 (400kV): 200 MW-70 MW line 2 (220kV): 100 MW-20 MW line 3 (220kV): 90 MW- 15 MW

TSO Operations

Data Description	TSO Comments									
<p>Hourly physical power flows on external interfaces.</p> <p>Actual scheduled power hourly flows on external interfaces.</p>	<div>23.10.2006</div> <div> <div>Program</div> <div>Realization</div> </div>									
	Period	TARIFF	Kardia	Podgorica	Fierza	SUM	Kardia	Podgorica	Fierza	SUM
	00 01	LT	0	-50	-91	-141	-97	-11	-39	-148
	01 02	LT	0	-50	-91	-141	-89	-28	-31	-147
	02 03	LT	0	-50	-91	-141	-45	-38	-45	-128
	03 04	LT	0	-50	-91	-141	-98	-16	-7	-121
	04 05	LT	0	-50	-91	-141	-120	-15	2	-134
	05 06	LT	0	-50	-91	-141	-117	-18	-30	-166
	06 07	HT	-40	-110	-41	-191	-135	1	-47	-181
	07 08	HT1	-40	-110	-25	-175	-146	30	-48	-164
	08 09	HT1	-40	-110	-25	-175	-146	24	-55	-177
	09 10	HT	-40	-110	-25	-175	-154	21	-43	-176
	10 11	HT	-40	-110	-25	-175	-168	20	-46	-193
	11 12	HT1	-40	-110	-75	-225	-181	6	-15	-189
	12 13	HT	-40	-110	-75	-225	-169	-1	-29	-199
	13 14	HT	-40	-110	-75	-225	-181	-8	-14	-203
	14 15	HT	-40	-110	-75	-225	-185	-15	-5	-205
	15 16	HT	-40	-110	-25	-175	-162	-11	8	-165
	16 17	HT	-40	-110	-25	-175	-160	-12	5	-167
	17 18	HT1	-40	-110	25	-125	-146	18	5	-123
	18 19	HT1	-40	-110	25	-125	-155	65	-17	-106
	19 20	TH1	-40	-110	25	-125	-145	73	-21	-93
	20 21	HT	-40	-110	25	-125	-166	46	-17	-137
	21 22	HT	-40	-110	25	-125	-168	32	26	-110
	22 23	LT	0	0	25	25	-107	49	60	3
	23 24	LT	0	0	-41	-41	-113	1	66	-46
	LT		0	-300	-562	-862	-786.24	-77.088	-24.816	-888.144
	HT		-400	-1100	-316	-1816	-1647.36	73.04	-161.04	-1735.36
	HT1		-240	-660	-50	-950	-919.68	216.656	-150.216	-853.24
	Total		-640.0	-2060	-928	-3628	-3353.3	212.608	-336.072	-3477

TSO Operations

Data Description	TSO Comments
<p>All generation outages planned at least 7 days in advance, indicate outage date and duration;</p> <p>All generation outages planned less than 7 days in advance, indicate outage date and duration;</p> <p>All transmission outages planned at least 7 days in advance, indicate outage date and duration;</p> <p>All transmission outages planned less than 7 days in advance, indicate outage date and duration;</p>	<ul style="list-style-type: none">•There is an yearly program for outages and maintenances and maintenance of every generation unit with the respective duration time.•The yearly program is detailed in the month and week advance.•The same procedure we attend for the transmission maintenance and outages.

System Demand

Data Description	TSO Comments
<p>Day before demand and generation forecast for each hour of the next day.</p> <p>Actual hourly demand and generation.</p>	<ul style="list-style-type: none">• PGC and DC are assisted by TSO on day ahead planning (programe) for each day on hourly basis.• Average actual hourly demand varies on 675-875 MWh depending on temperature and/or other factors.

Load Flow Cases

Data Description	TSO Comments
<p>The seasonal base case load flow models used to calculate interface capacity (if load flow model is not used, please indicate method used and provide model).</p>	<p>During the 2006, SEE TSOs simulate the flow-based CA at monthly rounds. Monthly auctions are simulated, where the product offered at the action is the band monthly value of zone-to-zone transmission rights, based on one network model, as a typical representative of a corresponding month. So, each TSOs SEE sent forecast model for next month 10:30 and each TSOs merge the network models of the Region and on base of this meged model calculate NTC for the allocation of capacity to the market. The SEE TSOs compute the PTDF matrix which represents the physical network. For each border between the neighbouring zones, TSOs calculate and harmonizes the technical constraints that limit the physical flow at the respective border, applying the rule “the lower value is in force”. This limit is called the Border Capacity or Bottleneck Capacity (BC), and is defined for both directions.</p> <p>PTDF matrix and the set of BCs is published and offered to market participants.</p>

Generation Capacity

Data Description	TSO Comments
<p>For each generating unit in the TSOs control area,</p> <ul style="list-style-type: none">fuel used in plant during the monthunit maximum capacity,unit average heat rate,variable operations costs;average fuel cost (over the month) <p>Weekly or daily forecast of hourly generator output for each generator in TSO control area.</p>	<ul style="list-style-type: none">•All these data are operational and planed yearly, monthly and weekly according to the market (demands) and program request.•According to the demands every day on hourly basis it is programmed the working time and starting / outages time for each generator.

Generation Capacity

[illegible]

Generation Capacity

Maintenance Plan for generating units

HPP	Units	Months											
		January	February	March	April	May	June	July	August	September	October	November	December
Fierza	Nr.1			14-15		02-03	01-02			01-30			04-05
	Nr.2		07-08			09-10			01-31			06-07	
	Nr.3		14-15					03-28			03-05		
	Nr.4			21-22			01-26						18-19
Komani	Nr.1	17-18				02-	-30				30-31		
	Nr.2		21-22					03-	-31	04-29		13-14	
	Nr.3			01-02								20-21	
	Nr.4				10-11						02-27		04-05

Generation Capacity

Maintenance Plan for generating units

HPP	Units	Months											
		January	February	March	April	May	June	July	August	September	October	November	December
V.Dejes	Nr.1	10-11			12-13								
	Nr.2			27-28		29-	-30						
	Nr.3		01-02							01-	-04		
	Nr.4			06-07						18-	-15		
	Nr.5	24-25			17-18						16-	-10	
Ulza	Nr.1	04	01	06	03	08	08-	-18	01	04	23	06	04
	Nr.2	05	02	07	04	09	05	19-	-13	05	24	07	05
	Nr.3	06	03	08	05	10	06	20	07-	-17	25	08	06
	Nr.4	07	04	09	06	11	07	21	04	11-	-06	09	07
Shkopeti	Nr.1	06	03	08	05	10	08-	-18		04	25	08	06
	Nr.2	07	04	09	06	11	07	21	07-	-17	26	09	07

Generation Capacity

Maintenance Plan for generating units

HPP	Units	Months											
		January	February	March	April	May	June	July	August	September	October	November	December
Bistrica1	Nr.1	19			20			10-31			02		
	Nr.2		21			29			07-28			21	
	Nr.3			15			28			01-30			05
Bistrica2	Nr.1	20			21			05			02-24		
TPP	Units	Months											
Fieri TPP	Nr.1			06-11						01-		-30	
	Nr.2				10-15								11-15
	Nr.3	03-			-05								
	Nr.4		14-19				12-30						
	Nr.5			20-25							23-27		
	Nr.6							03-			-31		
	Nr.6	30 days										30 days	

Generation Capacity

Maintenance Schedule for Interconnection and Internal Lines and Transformers for 2006

Interconnection lines

TS 1	TS 2	[kV]	February	March	April	May	June	July	August	Septemb.	October	November
Zemlak	Kardia	400				10 - 14					11 - 16	
Podgorica	Vau Dejes	220				03 - 06						
Prizren	Fierza	220			12 - 15						04 - 06	

Customer Complaints

Data Description	TSO Comments
<p>Records of complaints by customers or competitors regarding transmission access into the TSO control area;</p>	<ul style="list-style-type: none">•Being both PGC and DC as State Companies they have not any recorded complain, because the production and distribution are planed together as KESH –APC (Albanian Power Corporation).

Wholesale Activity

Data Description	TSO Comments
<p>Hourly megawatt-hour wholesale sales and purchases by the TSO or load-serving entities in the TSO control area, including the identity of the counterparty, price, firmness, and duration of the sale or purchase;</p> <p>Hourly megawatt-hour wholesale sales and purchases wholesale market participants (including the TSO) that sale within the TSO control area;</p> <p>include the identity of the seller, the counterparty, price, firmness, and duration of the sale or purchase;</p>	<ul style="list-style-type: none">•ATSO offers only the transmission and ATC services from Public Generation Company (owned by State) and some Small Power Producers (SPP) to Distribution Company (still state owned).•ATSO offers only the transmission and ATC service for Illegible Customers and Illegible Private Suppliers according to the programs week/day ahead.•ATSO does not buy or sell on wholesale market and/or balancing market.

Balancing Market (if applicable)

Data Description	TSO Comments
<p>Hourly MWh volumes cleared in the spot market;</p> <p>Average hourly price of cleared volumes;</p>	<ul style="list-style-type: none">•Generally we do not participate in spot market, the cover of fluctuations we solve through bilateral coordination with neighbors countries or suppliers.•We could not speak for any average price. Some of the exchanges are based on bilateral reservations.