# TRANSITIONAL RULES FOR ELECTRICITY BALANCING MECHANISM (BALANCING RULES)

## ARTICLE 1 SUBJECT MATTER

- Transitional rules for electricity balancing mechanism (Balancing Rules) regulate balancing market including balance responsibility of electricity market participants, rights and responsibilities of balance service providers, mechanism for determining price of balancing services procured by the transmission system operator, mechanism for calculating imbalance settlement price, financial settlement of imbalances of balance responsible parties and other issues related to the market operation in line with the requirements of the Power Sector Law and the Energy Community law.
- 2. The objective is to ensure an efficient and non-discriminatory balancing mechanism that will give incentive to market participants that are balance responsible parties to preserve the balance, as well as to offer balancing services.

# ARTICLE 2

# SCOPE

- 1. These Balancing Rules cover the timeframe after the gate closure for any changes on balance responsible parties' schedules by and between balance responsible parties in line with the Market Rules in force as per EREdecision No. 139 of 15/08/2016., "Provisional Rules Of Albanian Electric Power Market". Orders given by OST after the above-mentioned gate closure are considered balancing orders and should be treated and compensated in line with these rules. Rules cover also the process of registration as balance responsible party and balance service provider including the associated process of financial settlement and credit assurance.
- 2. This document will be a complementary part of the Market Model as per Council of Ministers' decision 519 of 13/07/2016, "Electric Power Market Model" and the associated Market Rules in force. Also the transitional rules for electricity balancing mechanism, are valid for the purposes of DCM no. 244/2016, "On the approval of the conditions for the imposition of a public service obligation to be applied to licensees in the electricity sector, which exercise the activity of generation, transmission, distribution and supply of electricity"
- 3. In case of any inconsistency between the provisions set under these Balancing Rules and Market Rules, these rules should prevail.

#### CONVENTIONS AND DEFINITIONS

- 1. The following conventions and definitions apply to these rules:
  - a. Incentive factors are coefficients that apply as multiple on the reference index in determining the imbalance prices and the price of balancing services.
  - b. A balance responsible party (BRP) is a party that is responsible for nominating balanced schedules and financially responsible for imbalances calculated by the transmission system operator (OST).
  - c. Balance responsible group is a group of two or more balance responsible parties that for the purpose of balancing merge their schedules and metering points, acting therefore for the purpose of these rules as single balance responsible party. The balance responsible group may be established through bilateral or multilateral agreements between parties where one of the participants is selected as balance responsible party to consolidate and submit schedules.
  - d. Balance service provider is the provider of balancing services registered with OST as balance service provider in line with these rules.
  - e. Balancing services is the balancing energy used by OST consisting of upward and downward regulation in line with measures defined under Article 7.
  - f. Nomination volumes and settlement units are in MW (interpreted as total MWh per hour).
  - g. Settlement period is time unit for which the imbalance of a balance responsible party is calculated and it is 1 hour.
  - h. A day is a period of 24 hours (or exceptionally of 23 or 25 hours as appropriate on the days when clocks are advanced/retarded for summer/winter time) beginning at midnight (00:00).
  - i. A business day is any day between Monday and Friday inclusive except for an official public holiday in Albania.
  - j. A week is the period beginning 00:00 Monday to 24:00 Sunday.
  - k. A month is a calendar month.
  - I. Currency used for the purpose of these rules is Albanian Lek (ALL). Price of balancing energy will be expressed in ALL/MWh.
  - m. Transitory Period is the period from the entry into force of these rules, until the entry into force of the (definitive) balancing rules.

- n. Account Means the maintenance of financial and technical data.
- o. Disbalance- is the difference between the energy flow determined by a bilateral contract (eg, the physical nomination of the program) and the current measured energy flow for a given hour. A generator is in imbalance when its measured output is equal to the programmed delivery amount contracted at a given hour. A supplier is in imbalance when its measured consumption complies with its contracted demand. A generator is in negative imbalance when its measured output is lower than its contractual delivery. A supplier is in negative imbalance when its consumption measured is greater than its contracted demand. A generator is in positive imbalance when its measured output is lower than its contracted is greater than its contractual delivery. A supplier is in positive imbalance when its measured output is greater than its contractual delivery. A supplier is in positive imbalance when its measured output is greater than its contractual delivery. A supplier is in positive imbalance when its measured output is greater than its contractual delivery. A supplier is in positive imbalance when its measured output is greater than its contractual delivery. A supplier is in positive imbalance when its measured consumption is lower than his contracted request
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# ARTICLE 4 RIGHTS AND RESPONSIBILITIES

- 1. All participants registered as balance responsible parties are subject to balance responsibility, except the cases where specific exemptions are granted by the Law on promotion of Renewable Energy Sources in Albania, No 7/2017.
- 2. Market participants registered with OST to nominate their contractual flows at the time these rules become effective, are considered balance responsible parties for a period of a month after the entry into force of these rules. Within this period such market participants should sign the registration form attached to these rules in Annex A1.
- 3. Market participants registered with OST as balance service providers at the time these rules become effective, are considered balance service providers for a period of a month after the entry into force of these rules. Within this period such market participants should sign the registration form attached to these rules in Annex A2.
- 4. New participants may register as balance responsible parties or balance service providers in line with Annex A1 and A2 as applicable.
- 5. Balance responsible parties and balance service providers are subject to the terms and conditions under these rules.
- 6. Balancing service providers, including producer with the public service obligation to offer balancing services, are not exempted from balance responsibility.
- 7. Market participants in the capacity of balance responsible parties with contracts that involve delivery or offtake of electricity at OST system or at the interconnection point of

the OST system are obliged to nominate their physical delivery to take place. Nomination of their schedules is done in line with Annex B of the Market Rules.

- 8. Balance responsible parties are obliged to nominate balanced schedules.
- 9. OST as the operator of transmission system is considered a balance responsible party for the purpose of network losses in the transmission network.
- 10. OST, in its capacity of transmission system operator, is a central counterparty for the purpose of balancing mechanism and responsible to undertake measures for balance the system physically and manage the financial settlement process.
- 11. Market participants, acting as balance service provider or balance responsible party, should pay and/or receive payments resulting from the balancing mechanism settlement.

#### ARTICLE 5 BALANCE RESPONSIBILITY

- 1. Balance responsible parties nominating their schedules with OST, and whose schedules have been accepted by OST, are responsible to maintain the balance of their schedules and financially settle their imbalances from nominated schedules with the transmission system operator.
- 2. Balance responsible parties may on bilateral or multilateral basis form balance responsible groups and act, for the purpose of scheduling and settlement of imbalances with OST, as single balance responsible party aggregating the schedules and metering points of its members into one single schedule. Balance responsible parties forming such balance groups, should send a confirmation to OST notifying the balance group leader that will be responsible to send the nomination.
- 3. Notification of balance group and the party submitting the nomination to OST should be done in line with Annex C.
- 4. Powr plants located in the same cascade, belonging to different BRPs, should form a Balancing Group in order to reduce the imbalances that each of them creates in case they will work as specific PPPs
- 5. Balance responsible parties under paragraph 4 of this Article should agree bilaterally on cascade coordination and fix an annual or monthly lump-sum fee for such balance group service. The following principles shall apply:
  - a. Upstream balance responsible party, acting as balance group leader must provide all the necessary information regarding the use of upstream generation facility to the downstream balance responsible party sufficiently ahead of time in order to mitigate potential imbalances caused to the downstream balance responsible party.

- b. Downstream balance responsible party must mitigate and be responsible for any imbalances that are under its control.
- 6. Upstream market participant acting in the capacity of balance service provider, should aim at minimizing the imbalances caused to downstream balance responsible party when responding to OST dispatch orders to balance the system, minimizing therefore the imbalance costs of the balance group. Upstream market participant acting in the capacity of balance service provider should factor in its order upstream generation facility, the impact on the output of the downstream generation facility. Balance responsible parties forming the balance group should exchange information to assess such factors.

#### ARTICLE 6 BALANCING SERVICE PROVIDER

- 1. OST will utilize the balance services based on the availability of the balance service providers.
- 2. The transmission system operator procures balancing services from the state owned generator, KESH, under the regime of public service obligation based on the prices as defined in these rules.
- 3. Other potential balance service providers may offer balancing services based on the contract signed with the transmission system operator. An official offer must be submitted to OST by the market participant interested to provide balancing services in line with the terms and conditions under these rules specifying the capacity in MW and the period from/to the balancing services are offered. The request should be submitted at least 30 calendar days before the day the balancing services are available. OST should confirm the acceptance or refuse within 10 business days after the submission day. In case of refusal, OST should list the reasons why the market participant offer for balancing services is refused.
- 4. Should one or more offers for balancing services submitted by balance service provided in line with paragraph 3 above are accepted, OST should aim at utilizing such services on pro-rata basis to avoid any discrimination.
- 5. The price for the balancing services is set based on a market price reference as defined in Article 11 and 12 below.

# ARTICLE 7 IMBALANCE OF OST SYSTEM

- 1. OST has the responsibility to keep its system in balance. OST system is considered imbalanced when, it has surplus or deficit of electricity.
- 2. OST undertakes balancing measures to keep the system it operates in balance. These measures may include:
  - a. Downward regulation, including the following: decreasing electricity generation, increasing consumption and/or cross-border balancing energy exchange, when the system is considered long, or
  - b. Upward regulation, including the following: increasing electricity generation, decreasing consumption and/or cross-border balancing energy exchange, when the system is considered short.
- 3. Imbalance settlement of unintentional deviations caused by balance responsible parties registered with OST is done in line with these rules.
- 4. Settlement of unintended deviations of OST with its neighboring systems is done based on regional arrangements resulting with compensation program and is outside the scope of this mechanism.
- 5. The compensation program will be maintained by OST through the balancing mechanism and compensated in line with the terms of these rules.

### ARTICLE 8

### CALCULATION OF IMBALANCES FOR BALANCE RESPONSIBLE PARTIES

- 1. For balance responsible parties with metering points registered on his name/account, imbalance is determined based on the metered position and final scheduled position, including any activation for the purpose of system balancing, for each settlement period separately.
- 2. Final scheduled position of the balance responsible party equals to the sum of its schedules.
- 3. Metered position equals to the sum of metered values from all injection and all withdrawal points allocated to the balance group.
- 4. Balancing energy activated balancing services under these rules equals to the sum of balancing energy activated from all balancing units allocated to the balance group. Activated balancing energy is determined based on the activation requested by the transmission system operator and the such activation is considered change in the schedule of balance responsible party.
- 5. For balance responsible parties without metering points registered on his name/account, imbalance is defined as the difference of the scheduled injection unit in the network, with

the scheduled withdrawal unit for each separate calculation period, and is named a non balanced schedule

- 6. In case the metered values are not available, OST should calculate the value based on the standard load profiles defined by the transmission or distribution system.
- 7. Imbalance volume is calculated by OST for each settlement period, for each balance responsible party. Where more than one balance responsible parties have formed a balance group for the purpose of balancing in line with Article 5, OST will calculate the volume of net imbalances for the balance group. The balance group is considered as single balance responsible party for the purpose of scheduling and settlement.
- 8. Imbalances of balance responsible parties are:
  - a. negative (-) when a balance responsible party is in shortage
  - b. positive (+) when a balance responsible party is in surplus

#### ARTICLE 9 ACCOUNTS

- 1. OST will maintain accounts for all balance responsible parties recording all the details necessary to perform imbalance settlement process.
- 2. For each balance responsible party or balance responsible group, OST will maintain accounts to calculate units of negative and or positive imbalances as well as the resulting financial settlement.
- 3. OST should keep an account for itself in the capacity of balance responsible party for the purpose of transmission losses and the associated imbalances.
- 4. For each participant, acting in their capacity as balance service provider, OST will maintain accounts to calculate units of balancing energy provided as well as the resulting financial settlement.
- 5. OST must maintain a common balancing account where it will record all payments and receipts from the balancing mechanism. The balancing mechanism is based on the principle of maintaining the neutral position of the TSO, which should not be gained or lost by the application of the balancing mechanism. If such a difference (gain or loss) is evidenced in a given year, then this is subject to the tariff regulation by the ERE ".

# ARTICLE 10 METERING

- 1. OST is responsible for maintaining a register of information on metering systems and meters connected to the Transmission System. For the purpose of these rules, the Distribution System Operator should provide metered volume to OST aggregated per each balance responsible party.
- 2. When a customer is willing to switch supplier and the meter of this customer does not meet the requirements in accordance with Chapter XIV of the Market Rules, the Distribution System Operator (OSHEE) should ensure that a standard load profile is used for such consumer or balance responsible parties that represents the consumer for balancing purposes

# ARTICLE 11 PRICES USED UNDER THIS MECHANISM

- 1. In the absence of commercially driven offers by balance service providers, for the purpose of these transitional rules a reference to a market index will be applied as a basis for calculation of the price for imbalances and balancing services.
- 2. Reference index, referred to in paragraph 1 above, to be used as basis for calculation of prices is the hourly price settled in the Hungarian day-ahead auction market, HUPX. This is HUPX DAM in EUR/MWh and is published on a daily basis for the next delivery day at HUPX web page (www.hupx.hu).
- 3. Where the reference index is not available due to failure of the day-ahead market, as a second option, OST may use another reference index for the days and/or hours the prices are not available. The reference index to be used by OST in such circumstances is the price settled in the Serbian day-ahead market, SEEPEX. This is SEEPEX day-ahead price in EUR/MWh and is published on daily basis for the next delivery day at SEEPEX web page (www.seepex-spot.rs).
- 4. The Prices for imbalance and balancing services shall be in Lek per MWh. In converting the amount from Euro (EUR) to Albanian Lek (ALL), it should be based on the exchange rate in force at the date of the invoice ,published by the Bank of Albania at <a href="http://www.bankofalbania.org">www.bankofalbania.org</a>.
- 5. The reference prices corrected with incentive factors should be published by OST at OST web page (www.ost.al) by the 5th business day of the month for each hour of the previous month.
- 6. The prices set according to these rules may not reflect the real time market value of electricity in Albania, therefore using them for settlement of bilaterally executed contract, being financial or physical, should be at the discretion of market participants.

#### PRICES FOR IMBALANCES AND BALANCING SERVICES

- 1. The reference index under Article 11.2 and 11.3, converted as per 11.4, will be corrected by the incentive factor depending from the balancing needs of OST system and its balance position as outlined under Article 7.
- 2. For the settlement periods where OST was short and needed to activate upward regulation, balance responsible parties:
  - a. With negative imbalances will pay the price calculated as HUPX DAM price of specific hour multiplied by a factor of 1.5 for each MWh of imbalance.
  - b. With positive imbalances will be paid the price calculated as HUPX DAM price of specific hour multiplied by a factor of 0.5 for each MWh of imbalance.
  - c. That were dispatched to increase electricity production or reduce demand as balancing services will be paid the price calculated as HUPX DAM price of specific hour multiplied by a factor of 1.2 for each MWh of imbalance.
- 3. For the settlement periods where OST was long and needs to activate downward regulation, balance responsible parties:
  - a. With negative imbalances will pay the price calculated at HUPX DAM price of specific hour multiplied by a factor of 0.5 for each MWh of imbalance.
  - b. With positive imbalances will be paid the price calculated as HUPX DAM price of specific hour multiplied by a factor of 0.05 for each MWh of imbalance.
  - c. That were dispatched to reduce electricity production or increase demand as balancing service provider will pay the price calculated as HUPX DAM price of specific hour multiplied by a factor of 0.05 for each MWh of imbalance.
- 4. For the settlement periods where OST was not activating balancing services, balance responsible parties:
  - a. With negative imbalances will pay the price calculated at HUPX DAM price of specific hour multiplied by a factor of 1 for each MWh of imbalance.
  - b. With positive imbalances will be paid the price calculated as HUPX DAM price of specific hour multiplied by a factor of 1 for each MWh of imbalance.
- 5. Balancing service prices under these rules, will be used for financial settlement of energy required for maintaining the compensation program.

### ARTICLE 13 FINANCIAL SETTLEMENT

- 1. Invoicing and the associated financial settlement of balancing mechanism is done on monthly basis.
- 2. The data collection, validation and calculation by OST is done by the 5<sup>th</sup> business day of the month for the previous calendar month. By the same day OST should send a report to each balance responsible parties outlining volume of imbalances and prices of the previous month.
- 3. Balance responsible parties have two business days to challenge or dispute OST's report.
- 4. By 8<sup>th</sup> business day of the month for the previous month, an invoice is issued by:
  - a. OST, in case OST has receivables under this mechanism. In this case payment by balance responsible party should be done by 12<sup>th</sup> business day of the month for the previous month.
  - b. Balance responsible party, in case OST has payables under this mechanism. In this case payment by OST should be done by 12<sup>th</sup> business day of the month for the previous month.
- 5. If a balance responsible party requests, OST should apply for netting of payments. The netting statement will be sent by OST electronically to a balance responsible party by 9<sup>th</sup> business day of the month for the previous month.
- 6. The netting statement should include the following:
  - a. Date issued and number of invoices that are included
  - b. Amount payable and amount receivable by OST
  - c. Net amount, clearly indicating whether it is payable by or receivable of OST.
- 7. Invoices and potential netting statements should be in Albanian Lek (ALL).
- 8. For any delay in payment, the invoicing party may charge the paying party annual interest rate REPO, Bank of Albania, as published at <u>www.bankofalbania.org</u> increased by 5%..

Any dispute on the volume or value should be raised during the validation process.

# ARTICLE 14 FINANCIAL SECURITY

1. OST has the right to request financial guarantee from balance responsible parties. It shall use this right without discrimination and in line with the principle of proportionality.

- 2. The level of financial security required for each balance responsible should be up to [50%] of the total net imbalance financial exposure calculated as average across the last three months. Monthly imbalance financial exposure for each balance responsible party is calculated as the invoiced receivables to OST from a balance responsible party deducting the invoiced payables from OST to the same balance responsible party in line with these rules. In any case the minimum value of financial security should be ALL [3 million].
- 3. For the newly registered balance responsible parties where no data are available to calculate historic exposure, OST should apply the fixed minimum amount of ALL [3 million].
- 4. If the imbalance exposure by a balance responsible changes for more than 20% on the rolling last three months, OST has the right to request an update on the collateral.
- 5. Financial security means the ones as outlined in Chapter XV of the market Rules.

# ARTICLE 15

# ROLE OF THE ENERGY REGULATORY AUTHORITY (ERE)

- 1. Due to the pricing model used, OST account for managing the financial settlement of balancing mechanism may not be financially neutral on the annual basis.
- 2. ERE will ensure that any income or cost arising from the balancing mechanism is taken into account in the transmission tariff review.

# ARTICLE 16

# FINAL PROVISIONS

- 1. These rules enter into force on the date as defined in the decision by ERE
- 2. These rules will apply until the International Finance Corporation sponsored final balancing rules enter into force.

#### ANNEX A1 BALANCE RESPONSIBLE PARTY REGISTRATION

- 1. Market participants registered with OST in line with Market Rules in force as per Council of Ministers' decision 139 of 15/08/2016 are requested to sign this form in order to become balance responsible parties as defined under the Balancing Rules.
- 2. Provisions under the Balancing Rules set the contractual terms for the purpose of balancing mechanism and imbalance settlement.
- 3. The form needs to be signed in two original exemplars and submitted to OST. Once signed by OST, an original signed exemplar will be submitted to registered balance responsible party.
- 4. By signing this registration form, the undersigned [...name and surname of the person legally authorized to represent the company....] on behalf of market participant [...name, registration number, license no, and address of the entity...] confirms the registration as balance responsible party in line with Balancing Rules.
- 5. The registration becomes effective two business days after the date it has been counter signed by OST.

On behalf of [... name of the market participant...] registering as Balance Responsible Party:

[...signature...name of the signatory legally authorized to represent firm...date & place ...]

On behalf of OST:

[...signature...name of the signatory legally authorized to represent OST ...date & place ...]

#### ANNEX A2 BALANCE SERVICE PROVIDER REGISTRATION

- 1. Market participants registered with OST in line with Market Rules in force as per Council of Ministers' decision 139 of 15/08/2016 are requested to sign this form in order to become balance balance service provider as defined under the Balancing Rules.
- 2. Provisions under the Balancing Rules set the contractual terms for the purpose of balancing mechanism and balancing services.
- 3. The form needs to be signed in two original exemplars and submitted to OST. Once signed by OST, an original signed exemplar will be submitted to registered balance service provider.
- 4. By signing this registration form, the undersigned [...name and surname of the person legally authorized to represent the company....] on behalf of market participant [...name, registration number, license no, and address of the entity...] confirms the registration as balance service provider in line with Balancing Rules.
- 5. The registration becomes effective two business days after the date it has been counter signed by OST.

On behalf of [... name of the market participant...] registering as Balance Service Provider:

[...signature...name of the signatory legally authorized to represent firm...date & place ...]

On behalf of OST:

[...signature...name of the signatory legally authorized to represent OST ...date & place ...]

## ANNEX C AGGREGATION OF SCHEDULES IN SINGLE BALANCE GROUP

# The undersigned, on behalf of the following balance responsible parties:

- Balance responsible party 1: ...[info on balance responsible party, name, address, registration, etc. other info as requested by OST, example registered meters]...

[Name, date, Signature of legally authorized person]

- Balance responsible party 2: ...[info on balance responsible party, name, address, registration, etc. other info as requested by OST, example registered meters]...

[Name, date, Signature of legally authorized person]

- Balance responsible party 2: ...[info on balance responsible party, name, address, registration, etc. other info as requested by OST, example registered meters]...

[Name, date, Signature of legally authorized person]

# Agree to form a single balance group acting therefore as single balance party for the purpose of imbalance settlement. Parties jointly agree that he balance responsible party representing them in scheduling and imbalance settlement is:

- Balance responsible party 1,2 or n: ...[info on balance responsible party, name, address, registration, etc. other info as requested by OST, example registered meters]...

This confirmation is signed on \_\_\_\_\_[date of final signature] \_\_\_\_\_\_ and enters into force once it is confirmed by OST in line with these transitional balancing rules.

On behalf of OST confirmed by \_\_\_\_\_[name and position]\_\_\_\_, on \_\_\_\_[date]\_\_. It enters into force on \_\_\_\_\_.

### ANNEX D

#### Rules for imbalance calculation

Balancing Responsible Party's Imbalancies(BRP)

The BRP imbalance is calculated for each repayment period (timetable or 15 ') as the difference between the realized and planned balances:  $\Delta PPB = Breal - Bplan$ .

Positive imbalances mean that the BRP has a long-term energy position. The negative imbalance means that the BRP has a short energy position. The realized balance of BRP is the difference between the total amount of output realized by all generating units and the total realized consumption of all customers within the balancing group. Breal =  $\Sigma$ Preal -  $\Sigma$ Kreal

The planned BRP balance is the difference between sold and purchased energy within a repayment period, taking into account the activation of secondary and tertiary control reserves: Bplan =  $[\Sigma P \text{ reg, increase } + EXPplan] - [\Sigma P \text{ reg, oil } + IMPplan]$ 

#### Where:

Preg, Growth represents the balancing power delivered in the rising direction, for automatic and manual adjustment,

Preg, .....presents the balancing power delivered in the landing direction, for automatic and manual adjustment,

EXPplan represents the total sale / delivery of GDP,

IMPplan represents the total purchase / procurement of CAP,

If all the necessary data are available, OST will calculate the imbalance of each market participant according to the methodology described above. This can serve as a basis for the financial solution of the GDP imbalance among the members of a balancing group. Below are examples of calculations of imbalances

Physical nominations of the program

1. The daily program of each market participant will be a 24 hour time-based program that provides the levels of quantity for the entire level of generation / purchase and consumption / sales of energy for each period of the financial agreement including the losses.

2. Market Participants shall declare to the OST the physical nomination of the programs through the electronic platform implemented, starting from 10:37 (CET) on the day of declaration of plan D-1 (day ahead) to 14: 00 (CET) of Plan Day D-1 (day ahead)

3. Declaration of the physical nomination of the programs may be changed through the intraday process, starting at 18:00 (CET) of the day of declaration of plan D-1 (day before) until 23:00 (CET) of the day of the schedule statement D. The subscriber is required to perform the nomination up to 60 minutes before (not later than) that the physical flow of the streams occurs for the declared time.

4. OST sh.a can not accept programs from the parties that have inconsistencies with each other.

5. If the programs of the parties have inconsistencies with each other, OST sh.a, in order to guarantee the safety of the operation of the system, shall take into account the program with the lowest value declared by the parties.

Supplie	er Accou	nt									
	Designa	tion↓	Hour→		#	1	2	3	4	 24	ΣMWh
Nomination	Import				1	30	30	30	30	 30	
	Purchase from KESH				2	10	10	10	10	 10	
	Purchase from PPE				3	30	30	30	30	 30	
	Purchase from FK 1				4	15	15	15	15	 15	
	Sales OSHEE				5	35	35	35	35	 35	
	Sales KK				6	25	25	25	25	 25	
	Sales FK 2				7	10	10	10	10	 10	
	Export				8	15	15	15	15	 15	
	Balance (1+2+3+4-5-6-7-8)				9	0	0	0	0	 0	
Measuring	Measurment PPE				10	29	28	31	35	 25	
Neasu	Measurment KK				11	23	25	26	27	 24	
alculatio ΔBRP = Breal – Bplan				12	1	-2	0	3	 -4		
realized production $\sum Preal = (1+2+4+10)$			=	84	83	86	90	 80			
realized o	consumptio	∑Krea	l = (5+7+	8+11)	=	83	85	86	87	 84	
realized b	balance	Breal =	ΣPreal -		=	1	-2	0	3	-4	
	egulation		∑Preg,r	-	=	0	0	0		 0	
planned e			an = (5+6	-	=	85	85	85	85	 85	
downward regulation ∑Preg,ulje			=	0	0	0		 0			
planned import IMPplan = (1+2+3+4)					=	85	85	85	85	 85	
balanca e planifikuar: Bplan = [ΣP reg, rritje + EXPplan] - [ΣP reg, ulje + IMPplan]			=	0	0	0	0	 0			
imbalanc	e	ΔBRP	= Breal -	Bplan	=	1	-2	0	3	 -4	
price by HUPX DAM = Ç ACE			=	-2	-5	5	-7	 5			
	paymer		paymer	1 =	#12*Ç*0.5	#12*Ç*0.5	 #12*Ç*0.5				
BRP pays t											
OST pays	to BRP										

Supplie	er Account (OSHEE)							
	Designation $\downarrow$ Hour $\rightarrow$		#	1	2	3	4	 24
	Request for supply by	KESH	1	500	510	520	530	 700
6	Importi dhe/ose PPE (F	FK)	2	100	100	100	100	 100
Nomination	PVE-K-T+SH (without h	ec Ashta	3	80	70	75	80	 80
	Hec Ashta	4	20	20	20	20	 20	
	Request at the border PVE-K-T+SH (without h Hec Ashta Measurement at the bo	with OST	5=1+2+3+4	700	700	715	730	 900
ó	PVE-K-T+SH (without h	6	75	65	82	78	 70	
asuring	Hec Ashta		7	21	18	17	22	 20
Mec	Measurement at the bo	order wi	8	700	690	720	720	 900
	Imbalance PVE-K-T+SF	9=6-3	-5	-5	7	-2	 -10	
tion	Imbalance Hec Ashta		10=7-4	1	-2	-3	2	 0
Calculation	Supply by KESH		11=8-2-6-7	504	507	521	520	 710
Ŭ	Imbalance for billing		12=1-11	-4	3	-1	10	 -10
		∑Preal	=	696	693	719	730	 890
		∑Kreal	=	700	690	720	720	 900
	Breal = ΣPreal - ΣK	Breal	=	-4	3	-1	10	 -10
		∑Preg,rrit	je =	0	0	0	0	 0
		EXPplan	=	700	700	715	730	 900
		∑Preg,ulje		0	0	0	0	 0
	IMPplan = (1+2+3+	IMPplan	=	700	700	715	730	 900
		Bplan	=	0	0	0	0	 0
		ΔBRP	=	-4	3	-1	10	 -10

Supplier Ac	count (k	(ESH)									
Designation↓ Hour→					#	1	2	3	4	 24	∑MWh
	Sale in C	Sale in OSHEE			1	450	430	400	450	 500	
Nomination	Sale in F	Sale in FK				10	10	10	10	 10	
	Sale in OST (losses)				3	20	20	20	20	 20	
	Export	Export				35	35	35	35	 35	
	Generat	Generation(1+2+3+4)				515	495	465	515	 565	
	OST Rec	OST Request for regulation				7	-3	-10	15	 20	
Measuring	Generat	Generation			7	520	500	460	530	 590	
	Activati	Activation of reserve(7-5)				5	5	-5	15	 20	
Calculation	ΔBRP =	BRP = Breal – Bplan			9	-2	8	5	0	 5	
realized production 5Preal = (7)			7)	=	520	500	460	530	 590		
realized consur	realized consumption SKreal				=	0	0	0	0	 0	
realized balanc		Breal =	= ΣPreal -	ΣKreal	=	520	500	460	530	590	
upward regulation		∑Preg,rritje		=	7	0	0	15	 20		
planned export		EX	EXPplan = (5)		=	515	495	465	515	 565	
downward regulation			∑Preg,ulje		=	0	3	10	0	 0	
planned import IMPplan = (5)			(5)	=	0	0	0	0	 0		
planned balance: Bplan = [ΣP reg, rritje + EXPplan] - [ΣP reg, ulje + IMPplan]					=	522	492	455	530	 585	
imbalance		ΔBRP	= Breal –	Bplan	=	-2	8	5	0	 5	
price by HUPX	DAM = C			ACE	=	-2	-5	5	-7	 5	
	7			paymen	=		#9*Ç*0.5			#9*Ç*0.05	
BRP pays to OST											
OST pays to BRP			payment	to FSHN	=	#8*Ç*1.2	#8*Ç*1.2	#8*Ç*0.05	#8*Ç*1.2	 #8*Ç*0.05	

# I. For Supplier Account (KESH)

Calculation of the balancing energy delivered by KESH and calculation of the imbalances caused by KESH are given as the difference between measurement generation of KESH subject with the request for adjustment by the OST and generation by nomination from KESH sh.a.

Where the OST adjustment request represents the average (average) power for the respective hourly order of the OST for increasing or decreasing generation in the context of automatic and manual secondary adjustment. Activation of the reserve represents the energy that will be paid to the BSP imbalance supplier. In the case of the command to increase, the generation increases more than the demand then the reserve activation fee will be equal to the demand, and the remainder will be paid in the context of the disbalance.  $\Sigma P \text{ reg} = \Sigma P$  increase / decrease, auto +  $\Sigma P$  increase / decrease, manual  $\star \Sigma P$  Increase / Decrease, Auto - The demand for automatic adjustment for generating units that are under power-control will be specified on the request sent by the TSO.  $\star$  Increase / decrease, manual - The manual adjustment request will be based on orders issued by hierarchy, QDK (OST) -> KESH.

Orders will be documented according to the attached format. In any case after the order of QDK has to be confirmed his execution by KESH.

Article 7 The request to activate the manual reserve is made according to the type request, attached to the Regulation.

Request, to activate the manual reserve

Nr. A/DO/DDO/ZO/ \_\_\_\_\_ Prot.

Tiranë, / /2017

Subject: Request for activation of manual reserve in the Drin Cascade

In accordance with the Agreement on "Provision of Ancillary Services and Balancing the Electricity System", the required electricity generation capacity at the Drin cascade plants is required according to the following specifications:

- Intervals schedule:
- Quantity:
- Direction:
- Maximum allowed time for activation:

Please confirm the execution of the application above,

Thank you for the cooperation,

National Dispatch Center OST sh.a.