

Republic of the Philippines
ENERGY REGULATORY COMMISSION
San Miguel Avenue, Pasig City



IN THE MATTER OF THE
APPLICATION FOR APPROVAL OF
THE ANCILLARY SERVICES
PROCUREMENT AGREEMENT
BETWEEN THE NATIONAL
TRANSMISSION CORPORATION AND
SN ABOITIZ POWER-MAGAT, INC.,
WITH PRAYER FOR PROVISIONAL
AUTHORITY

ERC CASE NO. 2009-007 RC

NATIONAL TRANSMISSION
CORPORATION (TRANSCO) [now
NATIONAL GRID CORPORATION OF
THE PHILIPPINES (NGCP)] AND SN
ABOITIZ POWER-MAGAT, INC. (SN
ABOITIZ)

Applicants.

x ----- x

DOCKETED
Date: JAN 26 2010

ORDER

Before the Commission for resolution are the "Motions for Clarification" separately filed by SN Aboitiz Power Magat, Inc. (SN Aboitiz) and the National Grid Corporation of the Philippines (NGCP) on November 3 2009 and November 20, 2009, respectively, relative to the Decision dated October 12, 2009.

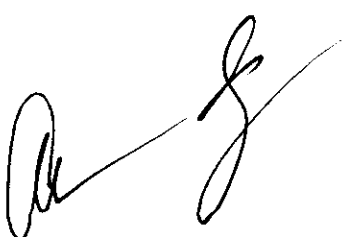
In the said motions, SN Aboitiz and NGCP alleged, among others, the following:

A. SN Aboitiz

Applicable Market Clearing Price

1. The pricing mechanism described in the said Decision makes a distinction as regards the rates that will apply in case (i) the Scheduled Capacity is dispatched as energy and (ii) the Scheduled Capacity is not dispatched as energy;

2. The said Decision provides that NGCP shall pay it corresponding Nominated Price of the Scheduled Capacity, if the same is not dispatched as energy;
3. The Decision further provides that the rates agreed upon by it and NGCP as indicated in the proposed rates of the Ancillary Services Procurement Agreement (ASPA) shall serve as a price cap, computed on a monthly basis in accordance with the formula indicated therein;
4. Based on the foregoing, the market clearing prices are deemed the price cap determinants for the rate to be paid by NGCP to it ("Applicable Rate") for providing ancillary services. Market clearing prices are thus considered a significant parameter in determining the Applicable Rate. In this regard, it would like to seek clarification on the applicable "market clearing price" that will serve as an indicative factor for establishing the Applicable Rate specifically for Scheduled Capacity without energy dispatched. To avoid ambiguity, it observes that the term "market clearing prices" as referred in paragraph 1.1 (a) of the dispositive portion of the said Decision should be clearly defined considering that market prices are cleared ex-ante and ex-post;
5. The price determination methodology of the market adopts the scheme of ex-ante and ex-post pricing to account for discrepancies between planned and actual outcomes. The ex-ante prices represent the expected prices and quantities scheduled by the market operator prior to actual dispatch by the system operator. On the other hand, the ex-post prices refer to the actual energy prices and quantities at the market trading nodes;
6. The said Decision requires it to nominate a price for each hourly nomination of ancillary service capacity. Applying the ex-ante price as the "market clearing price" for the Scheduled Capacity would make the pricing consistent with the nomination feature of the service/capacity;
7. Under the proposed pricing mechanism, NGCP will pay it the Nominated Price if such rate complies with the parameters established in the said Decision. It submits that the pricing mechanism should provide that the market clearing price will prevail if the Nominated Price is less than the market clearing price. Otherwise, the provision of ancillary services may become a less marketable venture for the generator;
8. In pegging the floor price at the market ceiling price (or the true cost of generation, as the case may be), return on providing ancillary services approximates that which can be derived from trading energy in the market. Consequently, the ancillary services market becomes competitive with the market for trading capacity as energy;
9. The market clearing price will be the prevalent factor in determining the Applicable Rate, with its true cost of generation as the floor price. This proposed pricing mechanism will more accurately reflect its opportunity cost in providing ancillary services;

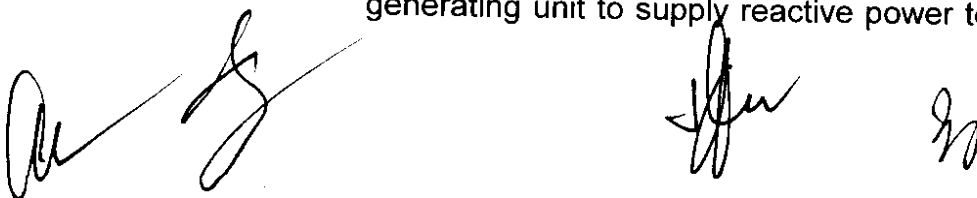


Applicable Rate for Scheduled Capacity with Energy Dispatched

10. The said Decision makes a distinction on whether the Scheduled capacity is dispatched as energy. In such case, the Decision that "the corresponding nominated price of the nominated ancillary capacity shall be disregarded";
11. The said Decision provides that if the Scheduled Capacity is dispatched as energy, NGCP will not pay it provided the market clearing price (as computed and provided by the market operator in the Wholesale Electricity Spot Market [WESM], or "WESM Market Clearing Price") is higher than the reasonable cost of generation or the Nominated Price. Instead, it will recover payment thru settlement on the market. On the other hand, if the WESM Market Clearing Price is lower than the reasonable cost of generation, NGCP will pay the difference between the WESM Market Clearing Price and the lower of its reasonable cost (including actual costs paid by it to the National Irrigation Administration [NIA] as cost of the water utilized in producing the energy dispatched from the Scheduled Capacity) and the Nominated Price;
12. It seeks to clarify the pricing mechanism which will apply in the event that the volume of the actual energy dispatched is less than the Scheduled Capacity. It is respectfully submitted that pricing mechanism as described above will only apply to such portion of the Scheduled Capacity which was dispatched as energy, such that while it will collect payment from the market for the volume of actual energy dispatched, it should be paid by NGCP for the volume of the Scheduled Capacity which was not dispatched as energy based on Item 1.1 (a) of the dispositive portion of the said Decision, subject to the clarification of matters discussed in the instant motion for clarification;
13. It is noted that the foregoing interpretation will not result in double compensation on its part. NGCP will not be required to pay for the portion of the Scheduled Capacity which was dispatched as energy but only for such remaining undischarged portion of the Scheduled Capacity. It may be stressed that it will not be able to recover compensation from the market for such portion of the Scheduled Capacity that was not dispatched as energy;

Nomination of and Compensation for Capacity for Reactive Power Support

14. It notes that the dispositive portion of the Decision is divided into Applicable Rates for (i) Contingency, Dispatchable, Regulated Reserve and (ii) Black Start capacity. In this regard, it would like to clarify if the manner of determining the Applicable Rates, as described in Item 1.1. of the dispositive portion of the said Decision, will also apply to the supply of Reactive Power Support;
15. The pricing mechanism for Reactive Power Support should be treated differently due to the nature of this ancillary service. As defined, Reactive Power Support refers to the capability of a generating unit to supply reactive power to or absorb reactive power



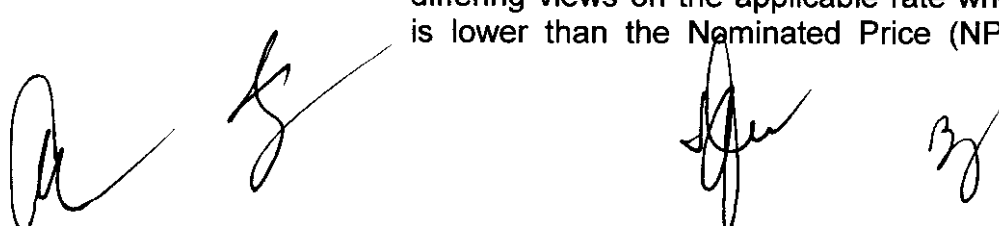
from the transmission network in order to maintain the bus voltage within five percent (5%) of its nominal voltage. Reactive Power Support is made available only when the generating unit is producing energy;

16. For such reason, it submits that the determination of the Applicable Rates for providing Reactive Power Support be governed by a pricing mechanism other than that which applies to Contingency, Dispatchable and Regulating Reserves to allow it (or any Service Provider, for that matter) to provide Reactive Power Support to NGCP even during off-peak periods when system requirements for such service is more critical;
17. Reactive Power Support is only available when the merchant plant is operating to produce energy. It notes that if the pricing mechanism for Contingency, Dispatchable and Regulating Reserves as provided in the Decision are applied for reactive support, the Service Provider will only be constrained to nominate Reactive Power Support during peak periods when it is actually generating energy. In such case, NGCP would not have sufficient Reactive Power Support during off-peak periods to maintain the stability of the Grid;
18. The Service Provider would not be encouraged to nominate Reactive Power Support during off-peak hours since the value for providing such service will not be equivalent to the cost for providing the same. If the Service Provider nominates Reactive Power Support and is paid based only on the pricing mechanism described in the Decision, it will have to assume the risk of not being compensated for the energy produced as a consequence of providing Reactive Power Support. To encourage the Service Provider to provide Reactive Power Support during critical periods, the Applicable Rate should then reflect compensation for the energy generated to supply the service as well as the actual service, i.e. Reactive Power Support; and
19. It notes that requiring payment for the energy portion of providing reactive power support does not constitute double compensation on its part. As discussed earlier, Reactive Power Support as an ancillary service (measured in MVar) is entirely distinct in form from the energy (measured in MW) produced. The equipment used for producing Reactive Power Support, as well as the effect of producing such ancillary service on the merchant plant, is also different from that used in producing energy. It, thus, emphasizes that separate compensation for Reactive Power Support and the energy portion thereof will not constitute double compensation since payment is applied to different services.

B. NGCP

Applicable Rates When the Magat Plant is Scheduled But Not Dispatched

1. In its discussions with SN Aboitiz, it appears that the parties have differing views on the applicable rate when the Proposed Rate (PR) is lower than the Nominated Price (NP) and the Market Clearing



Price (MCP) [NP>PR>MCP]. It is of the view that the applicable rate is the PR as it is the lowest among the three (3) rates. SN Aboitiz is of the option that the MCP should apply;

Application of Formula for the Proposed Monthly Cost

2. In the said Decision, it appears that the AS Cost is capped at the proposed rates. The relevant portion of the Decision reads:

“The said proposed rates shall be as follows:

Ancillary Services	Applicable Rate (Php)
Contingency Reserve	6.0781/kW capacity/hour
Regulating Reserve	6.6859/kW capacity/hour
Dispatchable Reserve	6.0781/kW capacity/hour
Reactive Power Support	7.2937/kVar/hour

The proposed rate, as price cap, shall be applied on a monthly basis and shall be computed as follows:

Proposed Monthly AS Cost = $\sum(\text{kW scheduled per hour during the relevant month}) \times \text{AS rate}$ ”

3. Based on the above formula, it sought clarification on the following issues:
- Whether the above formula applies only to kW scheduled and not dispatched for energy (i.e. excluding the scheduled quantity that is dispatched for energy, considering that under the said Decision, such quantity shall be settled in the market; and
 - If the actual monthly cost of each type of AS is greater than the Proposed Monthly cost as determined in the aforesaid formula, whether it shall pay the excess amount to SN Aboitiz.

Confirmation on Reactive Power Support

- The said Decision provides that a price cap for Reactive Power Support at Php7.2930/kVar/hour, be applied on a monthly basis and computed based on the aforesaid formula;
- The Ancillary Services Procurement Plan (ASPP) approved by the Commission provides that payment for Reactive Power Support shall be based on Peso/kVar/hour multiplied by the schedule kVar, provided that the subject plant operates at a power factor beyond the normal range (0.85 lagging and 0.90 leading). It notes that said process may not be consistent with the formula and price cap;
- It requested for clarification from the Commission on the applicable basis for payment for Reactive Power Support. In particular, it seeks clarification on whether payment for such AS should be made only when the Magat Plant operates beyond the said normal range;



Payment When Not All Scheduled Capacity is Dispatched

7. When AS is dispatched, the said Decision also provided for a different manner of settlement; and
8. If only a portion of the scheduled AS is dispatched for energy, it requested for clarification when it is liable to pay the AS cost of the balance of the scheduled capacity that is not dispatched for energy.

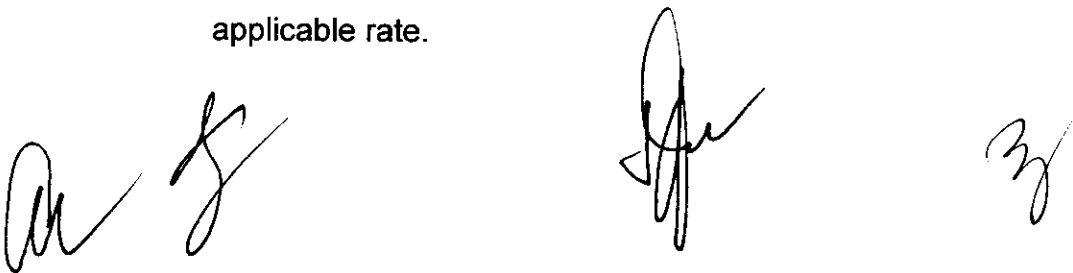
The following are the issues raised by SN Aboitiz and NGCP:

1. Whether the applicable market clearing price would be the *ex-ante* or *ex-post* market price.
2. Whether or not the payment for reactive power should be made only when the power plant operates beyond the normal range set in the ASPP.
3. What would be the applicable price of the undischarged capacity in case only a portion of the total scheduled capacity will be dispatched?
4. What should be the pricing mechanism regarding the lower between the nominated price and market clearing price?
5. What should be the compensation for Reactive Power Support as ancillary service?
6. What should be the applicable price when the SN Aboitiz's power plant is scheduled but not dispatched and the application of formula for the proposed monthly price cap?

DISCUSSION

The Applicable Market Clearing Price

In its Decision, the Commission considered the market clearing prices as part of the price determinants for the ancillary service rate to be paid by NGCP to SN Aboitiz. The market clearing prices shall serve as price cap for the undischarged scheduled capacity or the actual rate for the dispatched capacity. Thus, the market clearing prices are significant parameters in determining the applicable rate.



SN Aboitiz alleged that the term market clearing prices as referred to in the said Decision is broad and therefore, should be clearly defined considering that market clearing prices are based on *ex-ante* and *ex-post* pricing.

The Price Determination Methodology (PDM) of the market adopts the scheme of *ex-ante* and *ex-post* pricing to account for discrepancies between planned and actual outcomes. The *ex-ante* price represents the expected prices and quantities scheduled by the Market Operator prior to actual dispatch by the System Operator. The *ex-post* price refers to the actual energy prices and quantities at the market trading nodes.

SN Aboitiz is of the view that the *ex-ante* price or any equivalent/substitute price to *ex-ante* as declared by the Market Operator is a more appropriate measure in determining the ceiling price for the applicable rate. In the said Decision, SN Aboitiz is required to nominate a price for each hourly nomination. Applying the *ex-ante* price would make the pricing consistent with the nomination feature of the service/capacity.

The market clearing prices in the Decision refer to the *ex-post* prices that would give SN Aboitiz its possible opportunity cost. The *ex-post* prices are more appropriate representative of SN Aboitiz's opportunity cost than the *ex-ante* prices as the same are premised on the revenue that may accrue to SN Aboitiz by trading energy in the market. As such, the revenue that it would receive in the event that the energy is traded in the market would be equivalent to the *ex-post* prices (actual) and not the *ex-ante* prices.



The Applicable Price of the Undispatched Capacity in the Event that Only a Portion of the Total Scheduled Capacity is Dispatched.

In the said Decision, the Commission provided the applicable ancillary service rate for the scheduled quantity with energy dispatch and quantity without energy dispatch. However, for clarity, the pricing of the dispatched and undispatched portion of the total scheduled capacity shall be as follows:

- a) In the event only a portion of the scheduled capacity is dispatched, the applicable rate of that dispatch capacity shall be in accordance with Item 1.1 (b) of the dispositive portion of the Decision, to wit:

“b. Scheduled capacity with energy dispatched:

The corresponding nominated price of the nominated ancillary capacity shall be disregarded and the pricing shall be as follows:

- (i) Market clearing price is higher than the reasonable cost of generation.

NGCP shall not pay SN Aboitiz considering that its cost or its nominated price is already recovered thru settlement on the market. Thus, in this case, the ancillary capacity is free of charges as the cost is recovered thru the market.

- (ii) Market clearing price is lower than the reasonable cost of generation

NGCP shall pay the difference between the market clearing price and the lower of SN Aboitiz's reasonable cost and the nominated price.

In this case, the reasonable cost of generation shall be the Capacity Fee and O&M Fee (PhP2.1443/kW capacity per hour) plus the actual cost paid by SN Aboitiz to the National Irrigation Administration (NIA) as cost of the water utilized in producing such energy. The energy shall mean the energy produced from the scheduled ancillary service capacity.”

- b) On the other hand, the undispatched scheduled capacity shall be paid by NGCP in accordance with Item 1.1 (a) of the dispositive portion of the Decision, to wit:



“a. Scheduled capacity without energy dispatched:

NGCP shall pay SN Aboitiz the corresponding nominated price of that scheduled capacity. Provided, however, that the nominated price shall in no case exceed the lower between the proposed rates and the market clearing price (at Magat node) at the time that such capacity is scheduled for Ancillary Service.

Provided, further, that the market clearing price shall not be lower than the Commission’s approved SN Aboitiz’s reasonable cost of generation (PhP2.1443/kW capacity per hour). Otherwise, NGCP shall pay to it the said reasonable cost of generation.

In the event that SNAP Magat nominates a rate that is lower than its generation cost, said rate shall be regarded as the floor price.

The said proposed rates shall be as follows:

Ancillary Services	Applicable Rate (PhP)
Contingency Reserve	6.0781/kWh capacity/hour
Regulating Reserve	6.6859/kW capacity/hour
Dispatchable Reserve	6.0781/kW capacity/hour
Reactive Power Support	7.2937/kVar/hour

The proposed rate, as price cap, shall be applied on a monthly basis and shall be computed as follows:

$$\text{Proposed Monthly AS Cost} = \sum(\text{kW scheduled per hour during the relevant month}) \times \text{AS rate}”$$

The Applicable Price When the SN Aboitiz Power Plant is Scheduled But Not Dispatched and the Application of the Formula for the Proposed Monthly Price Cap

As indicated in the said Decision, the applicable ancillary service rate for the scheduled quantity which are not dispatched shall be the corresponding nominated price of that scheduled capacity; Provided, however, that the nominated price shall in no case exceed the lower between the proposed rates and the market clearing price (at Magat node) at the time that such capacity is scheduled for ancillary service.



In the event that the proposed rates are lower than the market clearing price or the nominated price, the proposed rates, being the price cap, shall prevail.

The proposed rates shall be applicable only to kW scheduled and not on the KW dispatched for energy. The scheduled quantity that is dispatched for energy shall be settled in the market but subject to the floor price set by the Commission.

NGCP further seeks clarification on whether or not it shall pay the excess amount to SN Aboitiz in the event that the actual monthly cost of each type of ancillary service is greater than the proposed monthly cost.

It must be noted that the Commission authorized NGCP to pay SN Aboitiz only the approved ancillary service rates which are independent on the cost actually incurred. Thus, even if the actual cost is higher than the proposed rate, NGCP shall pay SN Aboitiz within the rate cap prescribed by the Commission in its Decision.

The proposed rates are computed on a monthly basis as follows:

$$\text{Proposed Monthly AS cost} = \sum(\text{kW Scheduled Per Hour During the Relevant Month}) \times \text{Proposed Ancillary Service Rate}$$

The determination on whether the approved ancillary service rates exceeded the proposed AS rates shall be determined on a monthly basis and not on an hourly basis.



**The Pricing Mechanism Regarding the Lower Between
Nominated Price and Market Clearing Price**

SN Aboitiz manifested that the pricing mechanism should provide that the market clearing price should prevail even if the nominated price is less than the market clearing price. Otherwise, the provision of ancillary services may become less marketable venture for the generator. It was further stated that this pricing mechanism reflects SN Aboitiz's opportunity cost in providing ancillary services.

The Commission finds this argument bereft of merit. The pricing mechanism adopted by the Commission is reasonable to balance the interest of all concerned parties.

In providing a price and quantity nomination, NGCP would be able to evaluate and schedule an ancillary capacity with a lower ancillary service rate and reliable transmission system. This objective would be defeated if the higher market price prevails over the nominated price since NGCP evaluates the offer base primarily, among other technical requirements, on the nominated price and not on the possible outcome of the market clearing price. In this case, the market clearing price would no longer be regarded as its opportunity cost.

Moreover, it would be unreasonable and unfair to other ancillary service providers not to be scheduled because SN Aboitiz nominated a lower price but would be able to collect a higher market clearing price. The corresponding benefit for SN Aboitiz under this scheme is the assurance of recovering at least the reasonable true cost of generation. Further, it is significant to note that SN Aboitiz can always nominate a price equal to its projected market clearing price provided that it will not exceed the proposed AS rate.



The Compensation of Reactive Power Support and NGCP Clarification that the Payment for Such Service Should be Made Only When the Power Plant Operates Beyond the Normal Range.

The Commission has set the Reactive Power rate in the same manner as the determination of the applicable rates for Contingency Reserve, Dispatchable Reserve and Regulating Reserve translated into PhP/kVar/hour.

However, SN Aboitiz alleged that the pricing mechanism for Reactive Power Support should be treated differently due to the nature of this ancillary service. Reactive Power Support is available only when the generating unit produces energy. For such reason, it claims that if the pricing mechanism for Contingency Reserve, Dispatchable Reserve and Regulating Reserve shall be applied to Reactive Power Support, it will not be encouraged to nominate the Reactive Power Support during off-peak hours since the value for providing such service would not be sufficient to recover its cost.

It further alleged that the equipment used for producing Reactive Power Support as well as the effect of producing such ancillary service on the power plant are different from the equipment used in producing energy.

Based on the foregoing, the Commission is convinced that the Reactive Power shall be compensated separately as the Reactive Power Support and the energy portion thereof will not constitute double compensation since payment is applied to different services. The rate for Reactive Power is in PhP/kVar/hour, based on the approved ASPP, as against the rate for energy which is in kWh basis. Thus, relating the price of energy (P/kWh) to the price of Reactive Power (PhP/kVar/hour) may not be appropriate. The Reactive Power providers will not



be encouraged to nominate such service if they shall be paid only by the cost of energy. They may prefer to just deliver the energy by maintaining their normal operations since they will not be compensated for the additional services.

Accordingly, the Reactive Power rate shall be set equal to the computed reasonable cost of SN Aboitiz translated to PhP2.1443/kVar/hour.

Under the ASPP, power plants are considered to be providing this type of ancillary service if they operate beyond the range of 0.85 lagging and 0.90 leading power factor but within their capability curve. Thus, the payment of the Reactive Power Support shall be made only if the SN Aboitiz power plant operates at a power factor beyond the said normal range.

WHEREFORE, the foregoing premises considered, the Commission hereby clarifies its Decision dated October 12, 2009, as follows:

1. The market clearing price for the undispached quantity is the ex-post price, which is the actual price that would accrue to SN Aboitiz if the capacity was traded in the market;
2. The applicable rate for the dispatched capacity shall be in accordance with Item 1.1 (b) of the dispositive portion of the said Decision, to wit:

“b. Scheduled capacity with energy dispatched:

The corresponding nominated price of the nominated ancillary capacity shall be disregarded and the pricing shall be as follows:

- (i) Market clearing price is higher than the reasonable cost of generation.

NGCP shall not pay SN Aboitiz considering that its cost or its nominated price is already recovered thru settlement on the market. Thus, in this case, the ancillary capacity is free of charges as the cost is recovered thru the market.

- (ii) Market clearing price is lower than the reasonable cost of generation



NGCP shall pay the difference between the market clearing price and the lower of SN Aboitiz's reasonable cost and the nominated price.

In this case, the reasonable cost of generation shall be the Capacity Fee and O&M Fee (PhP2.1443/kW capacity per hour) plus the actual cost paid by SN Aboitiz to the National Irrigation Administration (NIA) as cost of the water utilized in producing such energy. The energy shall mean the energy produced from the scheduled ancillary service capacity."

On the other hand, the undispached scheduled capacity shall be paid by NGCP in accordance with Item 1.1 (a) of the dispositive portion of the Decision, to wit:

"a. Scheduled capacity without energy dispatched:

NGCP shall pay SN Aboitiz the corresponding nominated price of that scheduled capacity. Provided, however, that the nominated price shall in no case exceed the lower between the proposed rates and the market clearing price (at Magat node) at the time that such capacity is scheduled for Ancillary Service.

Provided, further, that the market clearing price shall not be lower than the Commission's approved SN Aboitiz's reasonable cost of generation (PhP2.1443/kW capacity per hour). Otherwise, NGCP shall pay to it the said reasonable cost of generation.

In the event that SNAP Magat nominates a rate that is lower than its generation cost, said rate shall be regarded as the floor price.

The said proposed rates shall be as follows:

Ancillary Services	Applicable Rate (PhP)
Contingency Reserve	6.0781/kWh capacity/hour
Regulating Reserve	6.6859/kW capacity/hour
Dispatchable Reserve	6.0781/kW capacity/hour
Reactive Power Support	7.2937/kVar/hour

The proposed rate, as price cap, shall be applied on a monthly basis and shall be computed as follows:

Proposed Monthly AS Cost = $\sum(\text{kW scheduled per hour during the relevant month}) \times \text{AS rate}$ "

3. The motion to consider the market clearing price as the prevailing rate even if the nominated price is less than the market clearing price is hereby DENIED for lack of merit; and



4. The pricing mechanism for Reactive Power Support shall be priced separately from the supply of energy service at a rate of PhP2.1443/kvar/hour. However, the payment for the Reactive Power Support shall be made only if the SN abotiz power plant operates at a power factor beyond the normal range (0.85 lagging and 0.90 leading).

SO ORDERED.


Pasig City, December 7, 2009.


ZENAIDA G. CRUZ-DUCUT
Chairperson *gdc*


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Commissioner


ALEJANDRO Z. BARIN
Commissioner


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