

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

IN THE MATTER OF THE
APPLICATION FOR THE APPROVAL
OF THE PROPOSED PRICE
DETERMINATION METHODOLOGY
(PDM) FOR THE PHILIPPINE
WHOLESALE ELECTRICITY SPOT
MARKET (WESM)

ERC CASE NO. 2003-356

DEPARTMENT OF ENERGY (DOE),
THROUGH THE NATIONAL
TRANSMISSION CORPORATION –
MARKET OPERATOR

Applicant.

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ORDER

The instant case stemmed from an application made with the Energy Regulatory Commission (the Commission) by the Department of Energy (DOE), through counsel of its duly authorized agent, National Transmission Corporation-Market Operator (TRANSCO-MO) for the approval of the Price Determination Methodology (PDM) for the Philippine Wholesale Electricity Spot Market (WESM).

CHRONOLOGICAL ORDER OF EVENTS

The verified PDM submission was filed on 26 June 2003 by the DOE through TRANSCO - MO.

Finding the PDM submission to be insufficient in many material aspects, the Commission issued an ORDER on 23 July 2003 directing the DOE, through the TRANSCO-MO, to submit, within thirty (30) days from receipt thereof, additional documents to facilitate the evaluation of the same.

On 18 August 2003, TRANSCO-MO moved for extension of time within which to submit said additional documents. Relative thereto, TRANSCO-MO was given thirty (30) days from 24 August 2003 to submit the said additional documents. On 24 September 2003, it again filed for a second motion for extension of time, which the Commission granted. Thus, TRANSCO-MO was granted another thirty (30) days within which to submit the said documents.

Finally, on 22 October 2003, TRANSCO-MO submitted the required documents.

On 5 December 2003, the PDM submission, together with the notice for its public consultation, were posted in the ERC Website. Industry participants were requested to submit their respective comments thereon on or before 19 January 2004.

On 31 January 2004, the notice for public consultation was published in the Manila Times. In the meantime, the deadline for the submission of additional comments was extended until 7 February 2004.

The public consultation was held on 12 February 2004 at the ERC Hearing Room.

The industry participants who submitted their respective comments on the proposed PDM and became parties of record were Manila Electric Company (MERALCO), Cagayan Electric Power and Light Company (CEPALCO), Dagupan Electric Corporation (DECORP), First Gas Holdings Corporation (FGHC), and the Power Sector Assets and Liabilities Management Corp. (PSALM).

In its letter dated 11 February 2004, however, PSALM formally withdrew the issues/comments it had raised on the PDM submission with the justification that coordination meetings held with the TRANSCO-MO had sufficiently clarified said issues/comments.

The PDM submission is grounded on the provisions of Republic Act 9136, otherwise known as the Electric Power Industry Restructuring Act (“EPIRA”), particularly Section 30 thereof, which states that :

“The price determination methodology contained in said rules shall be subject to the approval of the ERC.”

By rules, the said provision refers to the WESM Rules which was promulgated by the DOE on 28 June 2002 to govern the over all market mechanism of the Philippine WESM. The provisions in the WESM Rules relative to and connected with the price determination methodology shall be subject to the final approval of the Commission.

In regard thereto, the Commission:

- Approves in concept many elements of the said methodology submitted by the TRANSCO-MO;
- Provides guidance for the further development of some elements of said methodology;
- Seeks additional information and/or explanation for some elements of the methodology; and
- Designates certain elements of said methodology for future, separate, independent filing with the Commission.

In this connection, TRANSCO-MO may now proceed with the more detailed implementation of the WESM including the development of the requisite software, known as the Market Management System (MMS).

The Commission is of the observation that some of the items in the PDM submission are inconsistent with the provisions of the WESM Rules. Notably, several items included in the submission do not form part and/or are not found in the WESM Rules. These inconsistencies and omissions will need to be cured prior to the resubmission of the PDM by the TRANSCO-MO, for final approval by the Commission.

DISCUSSION

1. Zonal/Nodal Pricing

A Market Trading Node shall be the market reference for trading and settlement. The Market Trading Node can be a generation node, customer node or both.

The submission proposes that the ex ante and ex post pricing of electricity be on a locational or nodal basis. Such a price determination methodology is referred to as Locational Marginal Pricing (LMP). LMP is a method wherein a unique price is determined for each location (node) in the Market Network Model.

The TRANSCO-MO submission proposes that prior to the spot market commencement date, TRANSCO-MO shall group the customer nodes into Customer Pricing Zones. The Customer Pricing Zones are to be used for the settlement of energy trading for customers. WESM customers are distribution utilities, suppliers and end users in the Contestable Market. The Zonal Energy Price shall be determined by calculating the load weighted average of Nodal Energy Prices of all customer nodes within the Zone.

In determining the Customer Pricing Zones, the following criteria were proposed by the TRANSCO-MO:

- 1) Coherence in terms of nodal prices;
- 2) Relevant and binding constraints within the system; and

3) Geographic considerations.

As defined in the WESM Rules, a Customer Pricing Zone is a “zone within which all customers will face the same price for electricity consumed”.

The purpose of zonal pricing for customers is to minimize the effects of the variability of customer prices within a zone.

CEPALCO, one of the parties of record, raised the following concerns:

The objectives in using Zonal Energy Price instead of Nodal Energy Price for customers must be stated therein in consideration of the expected conditions or state of the electricity spot market and the transmission system in the Philippines that make it better to use Zonal instead of the Nodal Energy Price.

Unless there are better reasons for using Zonal Pricing, CEPALCO takes the position that Nodal Pricing should be used for customers because it avoids the cross-subsidies that would come about among customers within a zone if Zonal Pricing were used, and it makes regulatory judgments unnecessary as to which nodes should be included in a zone.

MERALCO recommends that the PDM should provide detailed policies and procedures in the establishment of customer pricing zones. Although the PDM submission briefly discussed the concept of the Customer Pricing Zone, MERALCO contends that the details concerning the criteria for its determination are insufficient.

The comments submitted by the parties of record and thereafter raised during the public consultation focused on cross subsidy issues that would arise should the zonal pricing regime be adopted for customers. The issue brought before the Commission is whether the WESM should adopt a full nodal regime or nodal for generators only and a

zonal regime for customers. The Commission sees the potential for the introduction of cross subsidies between customers based on their respective location, in the concept of Customers Pricing Zones and is mindful that the EPIRA mandates the removal of all types of cross subsidies. In such instance it is suggested that the determination of zones must be submitted by the TRANSCO-MO for the Commission's approval considering its mandate to eliminate cross subsidies.

Moreover, in the course of the discussion during the public consultation, the parties noted the advantage of using a full nodal regime in that the same will reflect the true cost, hence, the correct market prices at that node. TRANSCO-MO stated that should a full nodal regime be adopted for customer nodes, only the Distribution Utilities with large franchise areas having multiple nodes would have the potential problem of having different prices for contiguous customers. In such case, it was suggested that, it would be that affected Distribution Utility with multiple nodes within its franchise area that should seek the approval of the Commission to group their nodes into zones.

However, prior to resolving other issues, the Commission has to be informed about the extent of the potential cross subsidies should the zonal pricing be considered through an actual market simulation.

2. Ex-Ante Market

TRANSCO-MO proposes to determine nodal ex-ante trading quantities and prices as an output of the Market Dispatch Optimization Model (MDOM). These ex-ante trading quantities and prices represent the expected prices and quantities at each Market Trading Node scheduled by the TRANSCO-MO prior to actual dispatch of the system by the System Operator. The inputs to the MDOM are the Generation Offers, Reserve Offers, and Demand Bids submitted electronically by the Trading Participants in accordance with the Timetable, and the Net Load Forecast prepared by the TRANSCO-MO as Market Operator in accordance with Section 3.5.4 of the WESM Rules.

The parties of record stated that when TRANSCO–MO would shorten the trading interval in the future, it would be appropriate then to revisit the design concept of having both an ex-ante and ex-post pricing scheme.

The Commission notes that an optional ex-ante market provided as a service to Market Participants is a common feature of other well functioning energy trading markets. In addition to the price hedging protection offered by their longer term bilateral contracts, Market Participants have found value in being able to enter into shorter term financial hedging arrangements prior to real time dispatch of the system. It is as a service rather than as a requirement that such a market is offered to the Market Participants by other market operators.

The Commission observes that the ex-ante market proposed in this submission is different in various significant aspects from ex-ante markets observed in other jurisdictions. Participation in the proposed ex-ante market is a requirement placed on all Market Participants. Also, the buying parties, such as Distribution Utilities and large contestable customers, are precluded from specifying their load requirements in the proposed ex ante market. Buyers can only specify the portion of their total load requirements that could be dispatched (i.e. reduced) by the System Operator through their Demand Bids. The Market Operator prepares the forecast of a Distribution Utility's or large customer's load requirement which in turn is used in the determination of the financially binding ex-ante quantity for such buyer. The ex-ante market, as proposed, has the Distribution Utility or large contestable customer bearing the cost of any load forecasting error made by the Market Operator without recourse or control of potential increases in the their cost of electricity.

The Commission expresses its reservations on the adoption of a one-sided mandatory ex-ante pricing regime, determined four (4) hours prior to the dispatch hour and the determination of an ex-post price thereafter which could increase the potential for gaming by generators. This concern is further heightened by the inability of the Buyers

to counter such gaming practices of the Sellers by adjusting the level of load requirements input to the ex-ante market.

The submission fails to provide the compelling arguments as to the benefits of a one sided required ex-ante market coupled with an ex post market. Further discussion of this price determination element would be aided by a benefit analysis of the proposal as against other market models such as a two sided required ex ante market coupled with an ex post market or two sided optional ex ante market coupled with an ex post market.

3. Congestion Revenues and Settlement Surpluses

For any trading interval the use of locational marginal pricing produces payments to the generators which may differ from the revenues from the WESM customers. These differences, known as settlement surpluses, are the result of the two factors; the application of dynamic transmission loss factors and the line rental revenues from congestion in the transmission system. The submission proposes all settlement surpluses be retained by the Market Operator rather than surpluses going to the transmission owner per the WESM Rules.

In response to an issue raised by one of the parties of record, the applicant TRANSCO-MO claims that "Settlement surplus shall be retained by the TRANSCO-MO as per Section 3.13.16 of the WESM Rules". In addition, TRANSCO-MO claims that line rentals shall be paid to the TRANSCO-MO instead of the System Operator as per Section 3.13.15 of the WESM Rules.

During the public consultation and based on the comments raised, it was discussed that in the event of congestion of a section of the transmission line between two nodes, line rentals will be paid by customers of the congested node, and the payments will go to the National Transmission Company (TRANSCO) as owner of the transmission line. The TRANSCO receives no rental when there is no congestion. The possibility for the TRANSCO as System Operator to deliberately make congestion occur

in violation of the economically optimal solution was raised. Moreover, the collection of line rentals may make it unnecessary (even disadvantageous) for the System Operator (as part of TRANSCO) to increase the capacity of the line in order to remove the congestion. The query being posed would be the mechanisms available in the PDM or in the WESM Rules to prevent such anti-competitive behavior on the part of the System Operator.

The Commission takes note that reference is made to Section 3.13.15 of the WESM Rules on the payment of line rentals to the System Operator. TRANSCO-MO however is of the opinion that payment should be made to it, although this appears to be inconsistent with the above-cited provision.

It bears emphasizing that there must first be a submission on the potential magnitude of the congestion charges and its impact on the market prices prior to resolving the above issues.

The Commission agrees that the Market Operator will need to retain the portion of the settlement surpluses related to transmission losses in order to properly settle the WESM. It is anticipated that the settlement surpluses arising from the use of dynamic rather than static transmission losses will be relatively insignificant and easily managed by the Market Operator using the procedures outlined in the WESM Rules. In contrast, the amount of settlement surplus created by the line rental revenues arising from congestion on the transmission system could be a significant amount of revenue. This revenue needs to be returned to the Market Participants either directly through an allocation formula or funding for a Financial Transmission Right contract or indirectly through the reduction of other Market Participant fees or charges.

With regard to the entity that should retain the line rental revenues related to congestion, one option is to transfer such revenues to the transmission system owner with the funds to be used to upgrade the transmission system and reduce or remove the source of congestion. This option would effectively subsidize the transmission expansion

program with revenue from the energy trading market and should result in lower power delivery charges but higher energy costs for the Market Participants. The other option is to have the Market Operator retain the line rental revenues related to congestion and return such funds to the Market Participants through an allocation formula or auction process. This option provides a clear separation between the revenues created by competitive energy trading business and the revenues for the regulated transmission ownership business.

The issue raised that needs to be resolved is which entity will ultimately utilize the surpluses. There is a clear need for clarification from TRANSCO-MO on these matters and should the WESM Rules be inconsistent on the same, it is recommended that the Rule Change process be used.

4. Financial Transmission Rights (FTRs)

As defined in the WESM rules, Financial Transmission Right is “the right to financial compensation based on the difference between nodal energy prices at different market trading nodes”. It is proposed that FTRs be allocated through an auction process under the TRANSCO-MO. FTRs should provide a hedge to market participants against price differences between nodes of sale and nodes of purchase as represented in the MNM.

It is proposed that the System Operator would establish the transmission capacity as a basis for contracting the FTRs. The TRANSCO-MO would develop an auction process for such FTRs. Payments to parties that hold FTRs would be computed based on capacity covered in the said FTR. Proceeds from FTR auction and revenues from line rentals (congestion charges) in the WESM would be utilized to make the payments to the holders of the FTRs, subject to the approval of the Philippine Electricity Market Corporation Board (“PEMC Board”).

As part of its comments, CEPALCO suggested that the PDM should provide greater detail in the manner of allocating FTRs so that WESM market participants would know how to hedge against changes in locational prices. According to CEPALCO, the provisions contained in the PDM and its annexes are insufficient.

The Commission has concerns regarding the timetable for the implementation of the FTR auction market. It was stated by TRANSCO-MO at the public consultation that there are no plans to implement an FTR auction process until at least one year after the implementation of the energy trading market. If the FTR auction market is not implemented simultaneously with the establishment of the energy trading market, there would appear to be a lack of an effective mechanism available to the Market Participants to hedge their bilateral contracts against the risk of congestion charges and increased energy costs.

In any event, the procedures and mechanisms for the FTR auction market, when it is developed, will need to be submitted and approved by the Commission as an element of the price determination methodology for WESM.

TRANSCO-MO must be required to submit a clearer and more comprehensive discussion and detailed study of FTRs and conduct briefings about the FTR market to the industry participants. However, the evaluation on the same shall be treated separately by the Commission inasmuch as the auction market for FTRs will not be established simultaneous with the energy market.

5. Market Sustainability

Both the PDM submission and the WESM Rules contain provisions for the TRANSCO - MO to impose an administered price cap only in two (2) situations. First, if the System Operator declares an emergency which poses a significant threat to the scheduling, operation and/or control of the power system in accordance with the

guideline established in the Grid Code. Second, if pursuant to Section 30 of the EPIRA the Commission suspends the operation of the market as a result of a natural calamity or following the declaration by the President of the Philippines of a national and international security emergency.

The application mentioned the authority of the TRANSCO -MO to impose a price cap on the market during market suspension and intervention. There is however insufficient detail concerning the manner by which this cap will be determined and implemented.

Hence, MERALCO recommends that the PDM establish the parameters and process for the determination and administration of the price cap.

The Commission believes that the elements of the WESM should work together to produce an efficient, well functioning market to the benefit of consumers over the long term. The need to establish a mechanism to prevent undue volatility and possible gaming of the market has become apparent because of the California experience.

Currently, there are no market intervention provisions in the WESM Rules or the submission with the exception of the Administered Price Cap (“APC”) provisions mentioned above. The APC provisions were not meant to address and do not mitigate the generator gaming situations experienced in other energy trading markets in their early stages of development. The Philippine WESM has no operational experience from which to provide assurance to the Commission that the WESM Rules, as written, will result in true competitive behavior from Market Participants.

Prior to the full approval of the PDM the Commission will need to be assured that TRANSCO-MO, in consultation with the Market Participants and the System Operator,

has developed robust procedures, rules and penalties with regard to market sustainability issues such that the expected benefit of the WESM for end use consumers can be realized.

6. Must Run Generation

The submission states that the System Operator should be allowed to nominate generating plants for must-run status if such are needed to support system security. The System Operator would be responsible for compensating such generating plants separate from the energy trading payments, if any, received from the WESM for such plants. It is proposed that such generating plants would be price takers.

MERALCO avers that the issue of must run is not mentioned in the WESM Rules and sought clear criteria for the System Operator to designate must run plants. The parties however, recognized the need for the System Operator to have the flexibility to declare certain generating plants as must run units in order to ensure system reliability and security. Also, the parties sought clarification on how designated must run units would be compensated in the event that the nodal LMP was less than the generating plant's offer price.

The Commission recognizes the need for the System Operator to designate must run units to ensure system reliability at all times.

On the designation of a generating plant for reliability purposes, the recently approved Open Access Transmission Service ("OATS") Rules require the System Operator to prepare an Ancillary Services Procurement Plan in consultation with the Grid Management Committee and the Market Operator. The Ancillary Services Procurement Plan is an annual plan describing the ancillary services the System Operator intends to procure and the means by which it shall procure those services.

On the issue of compensation due a must run unit, the System Operator is responsible for compensating any generating plant that provides an ancillary service as defined in the OATS Rules and the Grid Code. Compensation, if any, for a must run generating plant designated by the System Operator for reliability purposes should be contained in the Ancillary Service Provision contract between the System Operator and the generating plant.

7. Market Network Model

As proposed in the WESM Rules, the TRANSCO-MO shall maintain and publish a Market Network Model, which will be used for the purpose of central scheduling and dispatch, pricing and settlement.

The Market Network Model is intended to be a sound representation of the power system elements that provides information on the technical characteristics and limitations of the power system that may materially affect the dispatch of generating units and electricity prices in the spot market.

Under the WESM Rules, the Market Network Model shall be developed by the TRANSCO-MO in consultation with electric power industry participants prior to commencement of the spot market, and shall be subject to the approval of the PEMC Board.

The Market Network Model shall be updated when necessary to accurately reflect current power system conditions, within the relevant market time frames.

The Market Network Model (MNM) contains not only the transmission network but also the integrated system of transmission and distribution networks for the supply of electricity. It is proposed that the MNM be the representation of the power system that will be used for the purpose of determining dispatch schedules, energy and reserve prices. As stated in Section 3.2.1.2 of the WESM Rules, the MNM “*shall*

represent fairly such other aspects of the power system which, when connected may be capable of materially affecting dispatch of scheduled generating units or pricing within the spot market.”

FGHC finds the proposed PDM too general and stated that it is unclear how the proposed PDM would be interfaced with the MNM, and how the price for generators and loads from a series of generator offers and demand bids will be determined. MERALCO likewise argues that there is no mention in the PDM as to why the System Operator should settle for the use of the reduced MNM instead of a full network model (FNM).

MERALCO is likewise of the opinion that, although general guidelines have been set out for the desired MNM, no mention is made on the principles that will be observed during the construction of the appropriate reduced version of the electricity network. This is necessary to ensure that the final MNM is a fair, consistent and reliable representation of the actual system. Also, no evaluation criteria have been set for the MNM. This may include the desired level of accuracy, essential components, and acceptable omissions.

The MNM is a key element of the PDM. The Commission agrees with the parties of record that there is a need for clarity as to the principles, criteria and procedures that TRANSCO-MO will employ in the formulation, revision and/or modification of the MNM.

Further, the Commission shares the concern expressed by a party of record that a scaled down version of the MNM will not fairly represent the power system and as a result may produce unrealistic or sub-optimal ex ante and ex post prices. Approving an MNM that will not accurately represent the power system may be pointless given the pivotal role the MNM plays in the WESM price determination methodology. The Commission will need to be satisfied that the proposed MNM fairly represents the power system prior to approving the PDM.

8. Treatment of Bilateral Contracts/ Line Rentals for Bilateral Contracts

The WESM Rules require all generators to submit offers to the market for all the energy they intend to deliver irrespective of their commercial contracts with consumers and retailers.

The submission proposes that Line Rentals be paid by all market participants, and calculated in accordance with Section 3.13.15 of the WESM Rules. The term Line Rental refers to the economic rental arising from the use of a transmission line. It includes both transmission losses and congestion charges. Charges for transmission losses and congestion are embedded in the nodal prices determined by the MDOM. The line rental amount would be computed by calculating the difference in the trading amount (Price x Quantity) between an injection node and an off-take node.

Pursuant to the settlement formulations in the WESM Rules, energy traded through a bilateral contract is subtracted from the energy traded through the ex-ante and ex-post markets. The submission proposes that a specific Line Rental be charged to bilateral contract quantities to fully account for the line usage of these bilateral energy flows in the market and to allow the settlement accounts to balance. Currently there are no provisions within the WESM to charge line rentals on the bilateral energy quantities.

The parties of record questioned the rationale for the line rental and its application not only to bilateral contracts but also to the must run and Non Renewable Energy Sources.

It is not apparent which provision in the WESM Rules specifies the method for the determination of the charge for line rentals for bilateral contracts and the settlement of such charge by the Trading Participants nor is it clear how the line rentals charged for bilateral contracts will be allocated.

Hence, the Commission finds that the WESM Rules should be amended to reflect the same.

9. Ancillary Services Traded in the Market

The TRANSCO–MO submission proposes that the reserve categories of regulating reserves and contingency reserves be procured by the System Operator through the WESM. As provided in the WESM Rules, the TRANSCO-MO, in coordination with the System Operator, shall establish and administer a market-based pricing mechanism for the Regulating and Contingency Reserve requirement of the system. Market Participants would be charged for Regulating and Contingency Reserves through the WESM settlement process.

Regulating reserves consists of frequency regulating and load following capability that allows the System Operator to meet changes in frequency and customer's demand (load) during a particular trading interval. Contingency reserve consists of operating reserves that give the System Operator the ability to respond in a manner that addresses a significant drop in the system's frequency due to a significant loss of generation capacity.

Other ancillary service categories as specified in the OATS Rules would be procured by the System Operator outside the WESM through a competitive tendering process or negotiated contracts.

CEPALCO requested for clarification on why the PDM only identifies two (2) types of reserve categories, regulating and contingency, as opposed to the five (5) ancillary services already listed in the WESM Rules. According to the WESM Rules (Section 3.3.4.2), the TRANSCO-MO may propose other reserve categories. The recommendation was for TRANSCO - MO to specify the parameters to exercise this authority.

On the other hand, MERALCO recommends that the PDM establish the parameters and process for the determination and/or modification of Reserve Pricing Zones. The PDM submission mentioned the initial determination of three (3) Reserve Pricing Zones, namely Luzon, Visayas, and Mindanao. There is no further discussion concerning the determination of future zones through the decomposition and/or aggregation of the initially determined zones.

Notwithstanding the proposition in the submission, Section 3.3.4.1 of the WESM Rules states: *“When reasonably feasible, the Market Operator, in coordination with the System Operator, shall establish and administer a spot market for the purchase of certain reserve categories”*. Further, Section 3.4.1.2 of the WESM Rules states that: *“Only energy shall be traded during the Interim WESM.”* The Interim WESM is defined as: *“The spot market operated by the AGMO for a period of twelve months from the spot market commencement date or until such time as the AGMO ceases to exist.”*

In view of the foregoing, the Commission is of the opinion that any submission relative to the PDM for reserve categories is premature at this time and therefore, should, if traded in the WESM, be treated distinctly and separately by the Commission in the form of a future and independent filing. In the meantime, the rules for procuring and compensating providers of certain reserve categories and the rules for charging Market Participants for the use of certain reserve categories shall be governed by the OATS Rules.

10. Prudential Requirements

The PDM Submission proposed the placement of Prudential Requirements by all Market Participants to ensure the effective operation of the WESM (Section 3.6, Annex D). However, it must be pointed out that Section 3.15.2, of the WESM Rules allows the Market Operator to exempt a Market Participant that includes a Distribution Utility.

The Commission notes that complying with prudential requirements affects price as there is a cost in the putting up of such requirements.

The Commission emphasized the principle of ensuring a level playing field among the market participants and thus every market participant should be responsible for such requirement.

Opening the possibility of exempting Distribution Utilities may be viewed as discriminatory against the entry of Suppliers who are not Distribution Utilities. The unequally applied cost for complying with Prudential Requirements for such non-exempted Suppliers or Traders could form a barrier to entry into the WESM by such parties.

It is the view of the Commission that there is a need to amend the WESM Rules as to eliminate discrimination by deleting the provision on exemption of Distribution Utilities.

11. Other Issues

In addition to the major issues brought before the Commission, several minor queries were posed in the comments submitted as well as during the public consultation. The Commission deems that these issues be addressed sufficiently for clarification purposes and must be complied with by the TRANSCO-MO.

(a) Shadow Pricing vs. Marginal Pricing

There is a need to define marginal pricing as applied in the submission, specifically to define whether the MDOM uses as basis the price of the last increment of energy actually dispatched or the next increment to be dispatched.

(b) Value of Lost Load (VOLL) and the Constraint Violation Coefficient

There was no clear explanation of the above considering that under the WESM rules, the same forms part of the PDM nor have the specific values been provided in the submission or the WESM Rules.

(c) Treatment of handling equivalent offers

There are no clear procedures on how the market will handle equivalent offers from generators for purposes of preparing and implementing the dispatch schedule.

(d) Setting of Dispatch Tolerances

There are no clear guidelines for the setting of dispatch tolerances to be used in the WESM nor have the specific dispatch tolerances been provided in the submission.

(e) Timetable for Bids and Offers

The above issue is included in the PDM submission in accordance with the WESM rules.

(f) Location of the Reference Bus

There is a need to incorporate changes in the proposed PDM since TRANSCO – MO manifested during the public consultation that the reference bus will be dynamically located as a result of the software run and not be manually selected as proposed in the PDM submission.

(g) Administered Price Cap

The administered price cap is a cap on the maximum ex ante and/or ex post price used in settlement of charges when the System Operator declares an emergency or when the Commission suspends the market. It was agreed during the public consultation that the determination and setting of the Administered Price Cap shall be treated in a separate filing with the Commission.

COMMISSION DIRECTIVES

WHEREFORE, the foregoing premises considered, the Commission hereby resolves as follows:

1. The Commission approves, in concept, TRANSCO-MO's proposal to implement Locational Marginal Pricing within the WESM. On the issue of Customer Pricing Zones, TRANSCO-MO is directed to submit a market simulation of a full nodal regime as well as the prices that would result if customer nodes were grouped into Customer Pricing Zones in order to quantify the potential cross subsidies that would be created by the adoption of the proposed Customer Pricing Zones.
2. The Commission approves, in concept, the proposed implementation of a "gross" pool for the purposes of coordinating the scheduling and dispatch of the power system. Relative thereto, the Commission approves, in concept, the proposed implementation of the Market Dispatch Optimization Model to determine the optimal dispatch schedule and to determine the ex ante and ex post nodal energy prices and in the future, reserve prices. The Commission likewise accepts, in concept, the inclusion of an ex-ante market as an optional service to the Market Participants. On the issue of the proposed required, one sided ex-ante market, TRANSCO-MO is directed to make a further study on the advantages and benefits of such a model and should the propensity for gaming and anti-competitive behavior outweigh the benefits, it is directed to make a recommendation to mitigate the situation.
3. The Commission approves, in concept, the collection of line rental revenues resulting from congestion by the Market Operator for return to the Market Participants. TRANSCO-MO is directed to provide information to the Commission as to the likely

magnitude of such revenues through market simulations using the MMS prototype and with various generation and load scenarios.

TRANSCO-MO is further directed to develop the detailed procedures within the WESM Rules for the use of such line rental revenues resulting from congestion prior to the implementation of a Financial Transmission Right auction.

4. The Commission defers the approval of a methodology for developing, allocating, issuing and/or auctioning FTRs and sets such methodology as a matter of a future separate filing with the Commission.

5. The Commission approves, in concept, the need for the System Operator to be able to designate must run units for reliability and security in the workings of the WESM. TRANSCO-MO is directed to define within the WESM Rules the time and manner by which the System Operator may alter the dispatch schedule for purposes of ensuring system reliability with such units. With regard to Section 3.5.13 of the WESM Rules, TRANSCO-MO is directed to provide the Commission with the criteria and circumstances wherein the System Operator can intervene in the WESM.

6. The Commission approves, in concept, the use of a Market Network Model to facilitate the determination of prices within WESM subject to the development of detailed rules to ensure that the MNM is a fair representation of the power system. TRANSCO-MO, in consultation with the System Operator and the Market Participants, is directed to draft criteria and procedures for the development of the MNM and future revisions to such MNM.

7. The Commission orders that the implementation of procuring certain categories of ancillary services through the WESM and all pricing provisions related thereto be deferred and not implemented. The trading of certain categories of ancillary services in the WESM shall be treated distinctly and separately by the Commission in the form of an

independent filing and such filing shall be submitted no earlier than one year after the commencement of the WESM. In the meantime, procurement, compensation and charging for ancillary services by the System Operator will be governed by the Open Access Transmission Service rules.

8. The Commission accepts the Prudential Requirement proposal contained within the submission for purposes of equitability and directs TRANSCO-MO to subject the same to the WESM Rule change process.

9. The Commission is committed to the development of appropriate market sustainability measures to prevent undue volatility or unrealistic prices. The Commission finds merit in the concept of the Market Operator, in consultation with the Market Participants and the System Operator and with the approval of the PEM Board, determining trading rules to mitigate undesirable volatility and unrealistic prices in the WESM. TRANSCO-MO is directed to submit appropriate market sustainability measures, approved by the PEMC Board.

10. TRANSCO-MO is directed to provide the Commission with the details for determining the line rental charge for energy traded through bilateral contracts and the details of charging such line rental amounts to the Market Participants. The Commission observes that the charging of line rentals for bilateral contracts is not clearly provided for under the WESM Rules. Hence, the applicant is hereby directed to subject the same to a Rule Change process for inclusion.

11. In addition, TRANSCO-MO is ordered to comply with the requirements arising from the provisions of the WESM Rules, including but not limited to the following:

(a) Submit a paper clarifying the definition of Marginal Pricing as used in the PDM submission. This is in view of the discussion on whether the Market Operator has indeed adopted the economic principle of marginal pricing or some other form of pricing.

(b) Provide details particularly on whether the treatment of loss factors to be used in the PDM will be static or dynamic loss factors. This is the result of the perusal of the submission which revealed that there are insufficient details on the level or value of Value of Lost Load (VOLL) and the Constraint Violation Coefficient intended to be used for the WESM. The setting of dispatch tolerance was likewise not mentioned.

(c) Indicate in its resubmission the manner of determining the location of the reference bus.

(d) Issue its policy on the handling of equivalent offers in the WESM.

(e) Submit the following for compliance purposes relative to its PDM submission, subject to approval of the Commission:

- Guidelines as to what constitutes a Significant Variation in and between Trading Intervals;
- Procedure for Preparation of Net Load Forecast;
- Management Procedures during Load Shedding; and
- Management Procedures for removal of Excess Generation from the dispatch schedule.

Finally, a close reading of the submission has revealed that several items are inconsistent with and in some instances are not found in the WESM Rules. Hence, TRANSCO-MO is directed to resubmit their proposed WESM PDM in a form that is

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consistent with the WESM Rules dated 28 June 2002, as amended. The WESM Rules, as amended, shall have been duly approved by the DOE prior to the resubmission of the revised PDM.

SO ORDERED.

Pasig City, 15 March 2004

RODOLFO B. ALBANO, JR.
Chairman

OLIVER B. BUTALID
Commissioner

CARLOS R. ALINDADA
Commissioner

LETICIA V. IBAY
Commissioner

JESUS N. ALCORDO
Commissioner

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