

For validation purposes, the Commission sought comments from the Grid Management Committee, an entity created under the Philippine Grid Code (Code). to provide advisory assistance to the Commission on matters relative to the national grid and the Code. In its reply, the Grid Management Committee stated that: "The Market Network Model is a fair representation of the power system based on the latest single-line diagrams and the line and equipment parameters provided by the System Operator. The Committee, however, recommends that the Market Network Model be updated by the Market Operator whenever there are changes in system configuration as advised by the System Operator."

Since the assumptions underpinning the said Market Network Model are variable and may consist of mere approximations, it is expected that the model will be subject to variations over time. Alterations to be made on the said network model is anticipated and the manner by which changes will be made addressed by the provisions of the WESM Rules as follows:

3.2.1.4. Where appropriate, the Market Operator or the System Operator may recommend alterations to the market network model, so as to maintain:

- (a) The relationship between the market network model and the transmission network; and
- (b) Consistency with market requirements, in accordance with clauses 3.2.1.2 and 3.2.1.3.

Any alteration recommended under clause 3.2.1.4 shall be approved by the PEM Board.

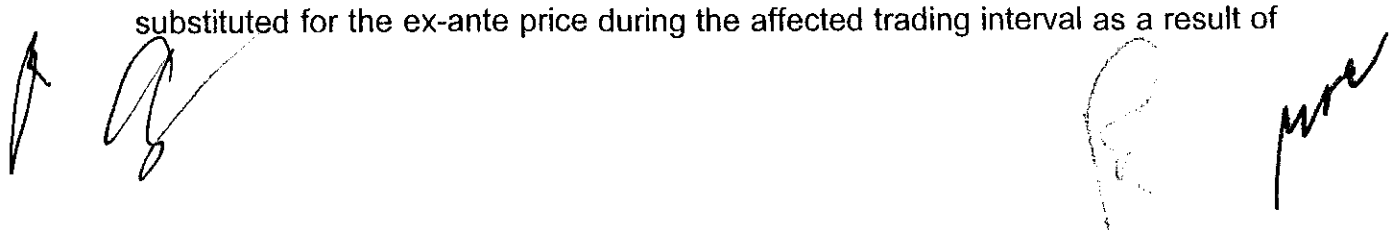
3.2.1.5. The Market Operator shall continuously adapt or adjust the representation of the market network model to accurately reflect power system conditions, within the relevant market time frames, as advised by the System Operator under clause 3.5.3.



The Commission notes that approval of the alteration is being made merely to the PEM Board. Said provision notwithstanding, it is deemed that the Commission must be made aware and informed of such changes considering that the Market Network Model is a major input to the MDOM and, accordingly, the PDM. Hence, the PEMC is hereby ordered to submit to the Commission, on a quarterly basis, the Market Network Model regardless of whether revisions or alterations have been introduced thereto. Should the same contain revisions, modification or alterations, the PEMC must provide sufficient explanation to the Commission as to the grounds on which revisions have been made and the procedure taken leading to such revisions including but not limited to, assessment reports, market pricing reports, evaluation reports, or such other conditions that have set in motion the modification process.

Relative to the algorithm is the accounting for constraint violation penalties therein. In its submission, PEMC states that these CVC penalty prices function as "signals to the Market Operator, the System Operator and the market participants of the need to take corrective actions to address the constraints that are encountered." (Application, 9 February 2006, p.16)

While the Commission appreciates the assertion that the System Operator will have to undertake corrective actions to address reliability problems arising from these constraints, the Commission takes issue on the claim that these CVC penalty prices will provide a pricing signal to the trading participants, who in turn will be expected to take corrective measures during the affected trading intervals. The market participants here are not possessed of adequate incentives to take such corrective measures because the CVC prices are not operative for settlement purposes. The WESM Rules allow for an ex-post price being substituted for the ex-ante price during the affected trading interval as a result of

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a price error notice being issued. (Section 3.10.5, WESM Rules). As the rules are crafted, there appears to be no incentive on the part of the market participant to take action to address the constraint violation inasmuch as the resulting prices will not be paid to or by the market participant. This was confirmed by the witness for the PEMC upon clarifications made by the Commission, thus:

MR. PANGILINAN:

xxx. Again, I'm sure this will be shared by the System Operator that whenever the market fails to come up with a feasible dispatch solution this has to be thoroughly coordinated with the System Operator. This has nothing to do with the pricing of the market but more on securing the system to ensure that there is a secured and reliable dispatch outcome. (TSN dated 25 April 2006, p. 13.)

While these CVCs are valuable inputs to the MDOM, the corresponding penalty values are determined in an arbitrary manner as testified to by the PEMC witness, thus:

MR. PANGILINAN:

xxx. The only thing that we arrange here are the order of priorities of which constraints are to be violated first over the other and this is also based on consultation with the System Operator.


From the standpoint of the Commission, the subjective valuation of these penalties exacerbates the concern that these penalty values do not provide sufficient incentives. The Commission deems that the market participants must be made to feel the effects of the actual cost of the constraint violation otherwise there will be little or no incentive at all for these market participants to prevent the occurrence of these constraint violations. The Commission believes that the application of these constraint penalties will create incentives only when accounted for in the settlement amounts.



Moreover, the Commission insists that this mechanism results in potential or perverse market outcomes in the form of an ex-post price being paid to a market participant higher than its bid price at the level of output that it was dispatched in the ex-ante market. This eventuality must be thoroughly looked into by the PEMC and must be illustrated to the Commission as it in fact has failed to sufficiently address this concern in the testimonies of the witnesses.

Cognizant of the fact that "the CVC level will be reviewed and audited [by the PEMC] every six (6) months from the start of WESM Commercial Operations", the PEMC is hereby directed that in addition to such audit, to submit to the Commission a semi-annual impact study containing the effect of the current regime on the market participant bidding behavior. Inasmuch as the Commission is not convinced that the current mechanism will induce participation by the players in preventing constraint violation, the Commission declares that upon its orders and on the basis of the results of the impact studies, it may be necessary for the PEMC to revise and work on the appropriate amendment of the market rules so as to provide therein that the effect of the constraints, treated as hard constraints, shall form part of the settlement process and, the violation penalties consequently influencing the behavior of the market participants.

Likewise, the PEMC is hereby directed to provide assurance and illustrate to the Commission, through the use of a thirty (30) day actual market data, that the perverse outcomes it suspects would occur, have not and will not come about during live operations.

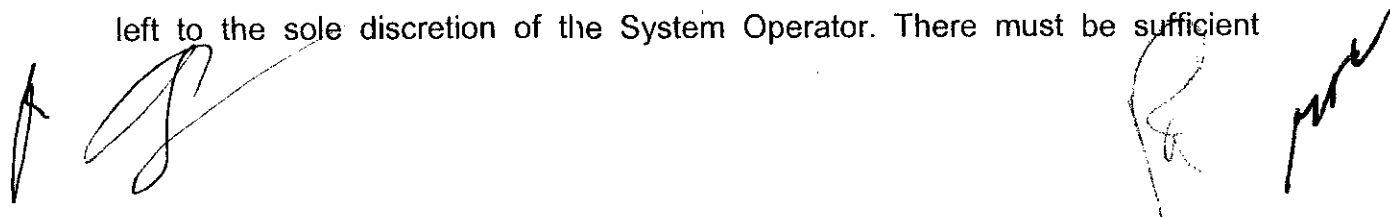


The System Operator plays an important role in the WESM, equally significant as that of the Market Operator. Thus, it is absolutely necessary for the Commission to look into the System Operator's processes.

As part of the submissions, the PEMC submitted the manual on the "Management of Must Run Units" whereby, in order to maintain system reliability or to support system security, the System Operator is allowed to nominate certain generating plants to run. Under the said manual, the criteria to be considered for running these plants are: (a) system voltage requirement; (b) thermal limits of transmission lines and power equipment; and (c) system tests of transmission facilities/equipment.

Several issues have been identified pertaining to the nomination of must-run units which the Commission thinks should be addressed. One is the absence of the WESM Rules provisions to provide the details of the adoption of such mechanism. There is also the full discretion granted to the System Operator in nominating these units without sufficient safeguards in place. Another issue is the manner of compensating these must run units as well as the constrained off generators as a result of this out of market dispatch. Also, as borne out by testimony, the Commission is concerned that generating units are given a wide latitude to refuse to be called as must-run units. The manual likewise proposes the submission and use of the Default Dispatch Offers of these generating units. However, the lack of procedure in verifying these data concerns the Commission inasmuch this mechanism for compensating must-run units can be left open for abuse.

The Commission deems that the designation of must run units must not be left to the sole discretion of the System Operator. There must be sufficient

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measures in place to ensure that the System Operator exercises its judgment in a fair and judicious manner lest it amounts to a breach of the WESM Rules or even behavior tantamount to being anti-competitive. As testified to by the System Operator, it is possessed of full discretion to designate these units, thus:

HON. BUTALID:

Okay. Thank you for that verification. On the matter of must run I think the witness said... did you give statement before that this can be designated anytime. What was your statement? I forgot.

MR. PANGILINAN:

Anytime that a security issue that needs to be resolved to a designation of a must run plant it could be done anytime from week ahead to day ahead. It's even close to real time.

HON. BUTALID:

Just to clarify. What conditions must exist for you to declare a plant must run.

MR. CLAUDIO:

We designate must run unit for system reliability and security considerations. So, if there is a need to run a plant because of voltage support then we designate them as must run units.

HON. BUTALID:

When is this done?

MR. CLAUDIO:

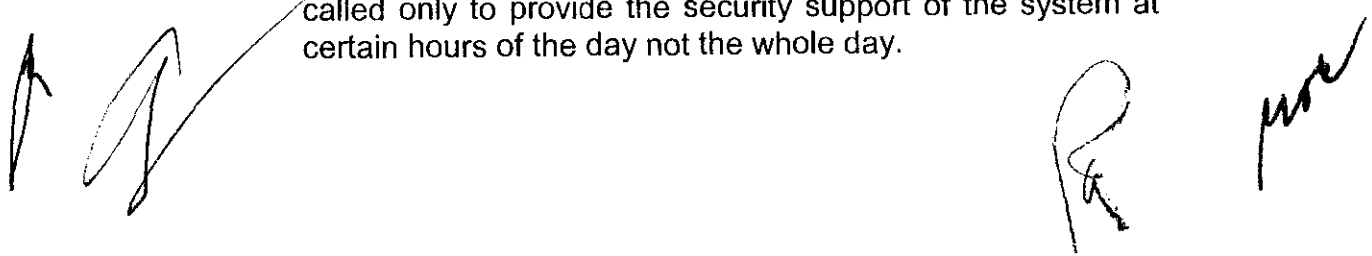
This can be done a week ahead and it can be a day ahead also.

HON. BUTALID:

And when you generate a must run plant it's not the capacity of the whole plant. Right? It's only a portion.

MR. CLAUDIO:

It maybe a portion only of the plant and it is only for certain hours of the day. Not the whole day because it may be called only to provide the security support of the system at certain hours of the day not the whole day.



HON. BUTALID:

So, when you designate a plant you specify already how many hours he will stay as a must run.

MR. CLAUDIO:

In the megawatt level.

HON. BUTALID:

It's not like you just goes on and you really tell him from the beginning of that designation how long he's going to run as must run.

MR. CLAUDIO:

Yes, sir.

HON. BUTALID:

And can a plant refuse to be a must run plant?

MR. CLAUDIO:

It can refuse to run as a must run plant because it is not mandatory for a plant to run as a must run unit. It is voluntary on his part.

HON. BUTALID:

So, you can refuse.

MR. CLAUDIO:

Then we have to ask another plant to run.

HON. ALCORDO:

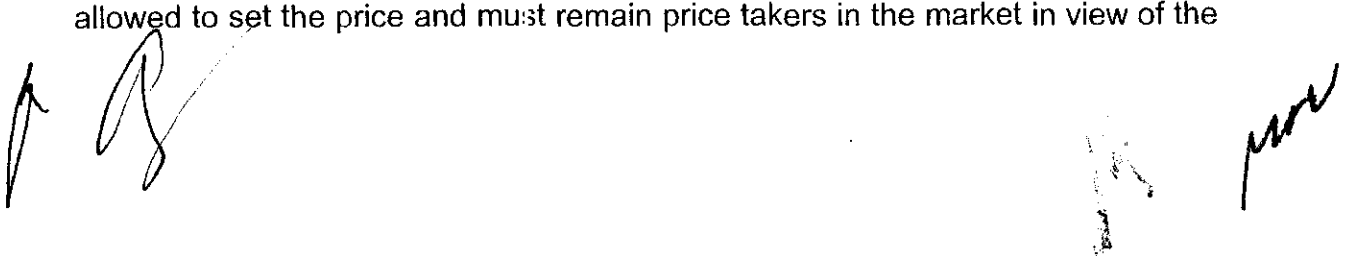
Even it affects system reliability.

MR. CLAUDIO:

If there is no other plant to take over as must run unit in place of the plant which refuses to run then we have to force the plant to run. Otherwise system security will be affected.

(TSN dated 10 May 2006, pp. 12-15)

While the Commission agrees that these must run units must not be allowed to set the price and must remain price takers in the market in view of the



potential local market power that these units possess, the manner of compensating them is a matter of interest for the Commission. The proposed mechanism for paying the start-up, no-load and variable costs known as the default dispatch offer may create incentives for these units to leverage their market power. A generating unit may have a strong incentive to wait to be called a must run unit to have its start-up and no-load cost recovered. Likewise, the duration by which these units are to run and continue to run as such remains unclear. The ability of the generating units to refuse a must-run call will affect will gravely affect system reliability concealed only by the non-divestiture of majority of these generating units. The picture of a huge reliability problem becomes vivid once these generating units are auctioned off to different owners.

Moreover, on the manner of compensation for plants, which have been taken out of the schedule, the Management Manual appears to be silent on this, thus:

HON. TAN:

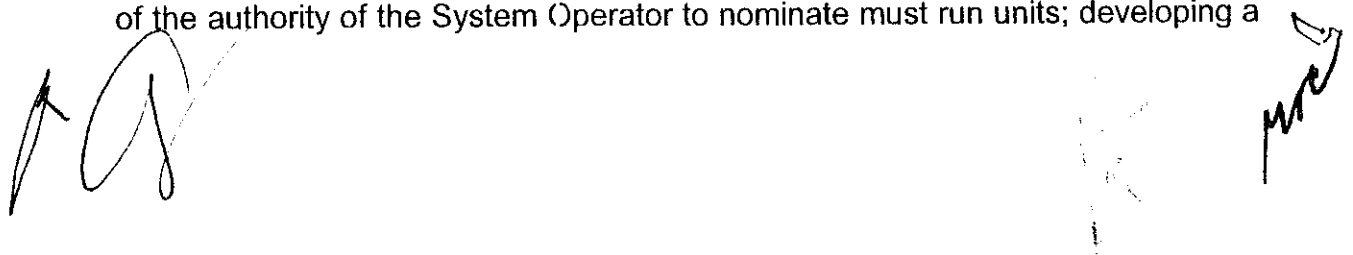
If you have must run plants then you will have actually displaced plants, right?

MR. PANGILINAN: Yes, you honor xxx

Right now we're still trying to establish or get an experience on the full energy market because this is actually complimentary to the energy market and all of the information coming for the auctioning and price clearing of the FTRs are based on the results of the energy market.

(TSN dated 25 April 2006, pp. 63 – 65)

Given the above observations, the Commission hereby directs the PEMC to revisit the manual and incorporate therein provisions clearly defining the limits of the authority of the System Operator to nominate must run units; developing a

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procedure for purposes of auditing the DDO data or other means of compensating these units as well as the displaced units; ensuring compliance with the must-run call . The manual must be submitted to the Commission for its approval within three (3) months from the start of Luzon commercial operations. Further, the PEMC is directed to submit to the Commission a quarterly report on events where must run units are required to run, the detailed parameters considered therein and the process undertaken by the System Operator in nominating these units.

While the Commission is possessed with full authority to penalize trading participants whose actions frustrate the goal of competition, it is convinced that preventive measures can be put in place at the outset to ensure and maintain transparency in the decisions of the System Operator. Hence, the PEMC and the TransCo being the System Operator, are hereby directed to develop policies and procedures that would enable the Commission to closely monitor the activities of the latter. These must include, but not limited to, a written set of manuals setting off the manner by which its major decisions are arrived at including the installation of surveillance devices such as closed circuit televisions in their respective control rooms.

Consistent with its authority to approve the PDM, the Commission deems it appropriate to make the following pronouncements consistent with its mandate to perform such other "regulatory functions as are appropriate and necessary in order to ensure the successful restructuring and modernization of the electric power industry xxx" (Section 43(t), EPIRA).

The industry is currently structured such that there exists a high level of ownership concentration in generation. Majority of the plants in the Luzon grid

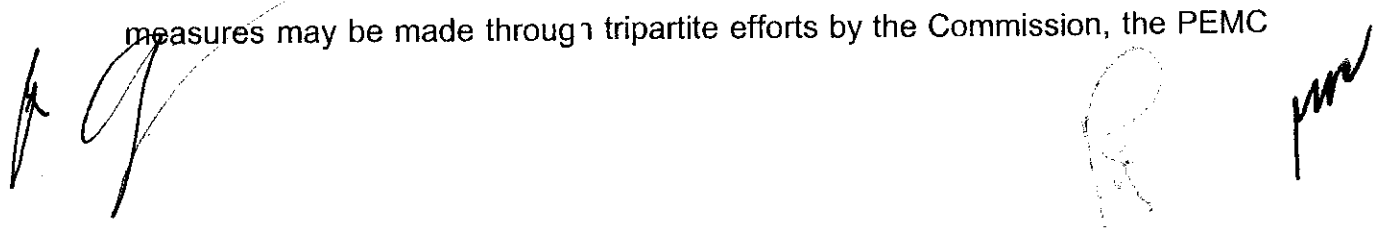


are owned or controlled by the National Power Corporation (NPC). In view of the impending commercial operations of the WESM, this fact remains as a concern to the Commission. In a competitive market, a high degree of concentration increases the risk of anti-competitive conduct by the players and it is acknowledged that there are at present no immediate means to reduce the dominant position of NPC. The Commission appreciates the measures being undertaken to simulate at best competition among these facilities in the form of independent and separate trading players for these units from the NPC and the PSALM. However, it is the desire of the Commission that there must be sufficient safeguards in place, such as arrangements that will encourage inter-plant competition at the same time prevent collusion among these entities. Thus, the DOE must ensure that these arrangements exist in the form of policy manuals on independent trading arrangements and procedures.

The Commission believes that the elements of the WESM should work together to produce an efficient, well functioning market to benefit the consumers over the long term. The need to establish a mechanism to prevent undue volatility and unrealistic prices of the market has become more apparent due to experiences in other jurisdictions.

Dr. Chiao, the witness for the PEMC confirmed during clarificatory questions posed by the Commission that the absence of pre-emptive market power mitigating measures is quite critical. (TSN dated 25 April 2006, p.121,) He shares the lessons in other jurisdiction that in the absence of effective pre-emptive measures, the cost to the industry was tremendous. (id. p 125)

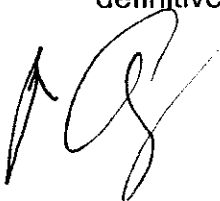
Thus, in its submission, PEMC proposes that the adoption of such measures may be made through tripartite efforts by the Commission, the PEMC



and the DOE. Pursuant to such proposal and in consonance with the desire to have in place a robust governance structure for the WESM, an interim tripartite committee shall thus be formed among said entities to address price contingencies, such as extreme price spikes or prolonged price volatility that may arise during the initial states of the WESM. As an initial pre-emptive mitigating scheme, the WESM must adopt an initial level of offer price ceiling or bid cap prior to the commercial operation of WESM for Luzon.

Still on the existing market structure, the Commission supposes that the existing capacity conditions in Luzon have been seriously taken into account in considering and eventually coming to a decision on the viability of the commercial operations therein. It however advocates that the situation in the Visayas region is different. The conditions obtaining in Luzon are not present in the Visayas grid inasmuch as it will just be a matter of time before the available supply therein will not be sufficient to respond to the rapid growth in demand. The propensity of generators to raise prices above marginal costs when markets are short of capacity must be considered in coming up with any decision to operate WESM in the Visayas grid. The precarious supply situation in Visayas will, for certain, create an avenue for generating units with dominant positions to abuse their market power. Hence, the Commission advises the market to exercise caution in its decision to open the market in said grid otherwise, market power abuse will be widespread and uncontrollable. The costs of flawed decisions can be quite high and it will always be at the expense of the ordinary consumers.

As provided in the WESM Rules, specifically Section 3.4.1.2 thereof, the PEMC, in coordination with the System Operator, shall establish and administer a spot market for the purchase of certain reserve categories. Once there exists a definitive determination as to the feasibility of administering a spot market for



reserves, the PEMC should seek the Commission's approval relative to the pricing of said transactions. The Commission hereby directs the PEMC to file its application for such approval at least six months (6) prior to the scheduled commencement of said market arrangements.

Likewise, the Commission observes that despite the number of amendments that have been made on the WESM Rules, the Commission has been notified of the existence of such amendments only through the mere coincidence of the said amendments being part of the instant application. Inasmuch as under the EPIRA, the Commission is tasked to enforce the rules and regulations governing the operations of the WESM, the applicant DOE and the PEMC are hereby enjoined to formally submit to and inform the Commission, of any and all amendments to the WESM Rules within five (5) days from the promulgation thereof.

WHEREFORE, premises considered, the Commission hereby approves the Price Determination Methodology for the WESM subject to the following, consistent with the authority of the Commission to evaluate and approve the same:

1. The net settlement surplus must be redistributed to the market participants and the procedure for redistribution must be established within three (3) months from start of WESM commercial operations in Luzon; The same must contain in the detail the scheme of returning the surplus and must take into account the appropriate share of specific load entities in the congestion charges. Likewise, PEMC is hereby ordered to annually submit to the Commission a comprehensive report on the net settlement surplus



including, but not limited to, the monthly levels thereof and the underlying causes of the same;

2. The PEMC shall submit to the Commission, on a quarterly basis, the Market Network Model regardless of whether revisions or alterations have been introduced thereto. Should the same contain revisions, modification or alterations, the PEMC must provide sufficient explanation to the Commission as to the grounds on which revisions have been made and the procedure taken leading to said revisions;
3. The PEMC shall submit to the Commission a semi-annual impact study on the CVC penalty prices containing the effect of the current regime on market participant bidding behavior. Further, the PEMC, using thirty-day actual market data, shall submit and illustrate to the Commission, within sixty (60) days from commercial operations that perverse outcomes have not occurred and will not occur during live operations;
4. The PEMC shall revisit the manual on must run units and incorporate therein provisions defining the limits of the authority of the System Operator to nominate must run units; developing a procedure for purposes of auditing the DDO data or other means of compensating these units as well the displaced units; and ensuring strict compliance with the must-run call. Said manual must be submitted to the Commission within three (3) months from the start of WESM commercial operations in Luzon. Further, the PEMC shall submit to the Commission a quarterly report on events where must run units are required to run, the parameters considered and process undertaken by the System Operator in nominating these units;
5. The PEMC and the System Operator, are hereby directed to develop policies and procedures that would enable the Commission to closely




- monitor the activities of the latter. These must include, but not limited to, a written set of manuals setting off the manner by which its major decisions are arrived at including the installation of surveillance devices such as closed-circuit televisions in their respective control rooms;
6. The DOE shall ensure a sufficient level of competition within the units owned by the National Power Corporation and the generating units being administered and currently traded by PSALM;
 7. There shall be put in place pre-emptive market mitigation schemes, specifically an offer price cap, prior to WESM commercial operations in Luzon;
 8. Prior to the scheduled commencement of the spot market for reserves, the PEMC shall, at least six (6) months prior thereto, file for the Commission's approval the pricing of the transactions therein; and
 9. The DOE and the PEMC shall formally submit to and inform the Commission, of any and all amendments to the WESM Rules, within a period of five (5) days from the promulgation thereof.

With the approval of the instant application, no impediment thus exists, which would prevent the DOE from declaring the start of WESM commercial operations in Luzon. This Decision shall take effect immediately.



SO ORDERED.

Pasig City, 20 June 2006.


RODOLFO B. ALBANO, JR.
Chairman


OLIVER B. BUTALID
Commissioner


RAUF A. TAN
Commissioner

(On official leave)
JESUS N. ALCORDO
Commissioner


ALEJANDRO Z. BARIN
Commissioner


NJS/DTL/FSC

Copy furnished:

1. **Atty. Rachel Angela P. Anosan**
Atty. Celina R. Encarnacion
Philippine Electricity Market Corporation
9th Flr. Robinsons Equitable Tower
Ortigas Center, Pasig City
2. **Hon. Raphael P. M. Lotilla**
Secretary
Department of Energy
Energy Center, Fort Bonifacio
Taguig City
3. **Office of the Solicitor General**
134 Amorsolo Street, Legaspi Village
Makati City, Metro Manila
4. **Senate Committee on Energy**
GSIS Bldg., Roxas Blvd., Pasay City
Metro Manila
5. **House Committee on Energy**
Batasan Hills, Quezon City, Metro Manila

6. **Commission on Audit**
Batasan Hills, Quezon City, Metro Manila
7. **Puyat Jacinto & Santos**
12F Manila Bank Building
6772 Ayala Avenue
Makati City
8. **National Power Corporation**
Agham Road, Diliman, Quezon City
9. **Atty. Rommel Yap**
Manila Electric Company
Lopez Building, MERALCO Avenue,
Ortigas Center, Pasig City
10. **Atty. Liberty Dumlaog**
Power Sector Assets and Liabilities Management Corporation
2nd Floor, SGV II Bldg.,
Ayala Avenue, Makati City
11. **Atty. Jose T. Baldonado**
19 F. Manalo Street
San Juan, Metro Manila
12. **Engr. Robert Mallillin**
NAPOCOR Industrial Consumers Association (NICAI)
153 Epifanio delos Santos Avenue
Mandaluyong City, Metro Manila 1550
13. **Mr. Pete Ilagan**
NASECORE
Tambo, Paranaque
14. **Engr. Siegfriedo A. Veloso**
Federation of Village Association, Inc.
Clubhouse Don Jesus Blvd., AHV, Cupang, Muntinlupa
15. **Atty. Epimaco D. Magpantay**
Federation of Homeowners Associations Brgy Don Bosco, Inc.
#49 Japan St., Betterliving, Parañaque City
16. **Dr. Bonifacio C. Dazo**
Federation of Las Piñas Village Association
#50 C.V. Starr Ave., Philamlife Village, Las Piñas City

