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Memorandum

For : The PEM Board
From : The Market Surveillance Committee
Date : 20 November 2006
Subject : MSC Report on the ECO Investigation Report on the
Alleged Anti-Competitive Behavior/Market Power Abuse

Our role, as we see it, is to monitor what's going on in the spot market and if it looks unusual bring it to the attention of the PEM Board who in turn then directs, should they so decide, ECO to investigate the matter. The result of that investigation is then brought to our attention for review, summarization and, if appropriate, comment before transmitting to the Board.

We are to ensure that the ECO report substantially complied with procedures provided in the Market Compliance Surveillance and Enforcement Market Manual without materially affecting the rights of the parties or the credibility of the data and documents, and that the data and documents upon which the ECO based its factual findings are valid and complete, the MSC shall prepare and submit its report to the PEM Board which shall include the following:

- (a) A description of the matter that was investigated by the ECO, including a summary of all settlements and offers for settlements, when applicable; (See appendix 1)
- (b) A summary of the preliminary matters; (See appendix 1)
- (c) A summary of the factual findings, opinions, and recommendations of the ECO; (See page 2)
- (d) A statement that the ECO complied with procedural requirements provided in this Manual, or that the non-compliance with the procedural requirements, if any, does not materially affect the rights of the parties, the factual findings of the ECO, or the credibility of the data and documents upon which the factual findings are based; (See page 7)
- (e) A statement that the factual findings of the ECO are based on valid and complete data or documents; (See page 7) and
- (f) A statement that the MSC is accepting the factual findings of the ECO. (See page 7)

Although one could impugn ill-motive, or deliberate attempts to collude or otherwise distort the spot market system, we are in the six-month period where a penalty immunity, under certain conditions, was put in place in the design of the WESM anticipating that mistakes can be expected as we all learn a new and quite complicated system.

The findings that PSALM had behaved anti-competitively and abused its market power arose from the activities of PSALM in respect of its 3 trading teams responsible for trading on behalf of the Ilijan, Pagbilao and Sual plants. PSALM conducts its trading activities through 4 trading teams. Each team has a portfolio of generation plants. The plants Ilijan, Pagbilao, and Sual are each traded by a different trading team under PSALM.

The PSALM trading teams are supposed to trade independently of each other. This was recognized early in the development of the market as being necessary in order to circumvent any market power issues arising if PSALM traded all the plants collectively. This is because collectively PSALM can have sufficient market power to dictate the price in the market rather than allowing competition to determine a fair price.

The investigation revealed that the 3 trading teams that were trading on behalf of Ilijan, Pagbilao, and Sual were bidding in such a manner that caused the market clearing price to rise above competitive levels. The investigation found that PSALM had market power and was exercising it to the extent that it was an abuse of its power.

The investigation did not find that the 3 PSALM trading teams agreed amongst themselves to trade collectively but it did find that the PSALM trading teams are structured in such a way that its top management can and, it seems, did exercise significant influence over each team's individual strategies such that the 3 teams effectively could no longer be considered to be independently trading. This had the effect of allowing market clearing prices to rise to a level that no longer reflected a pricing outcome influenced by competitive forces.

SUMMARY OF FACTUAL FINDINGS, OPINIONS AND RECOMMENDATIONS OF THE ECO

We have reviewed the investigation report prepared by the Enforcement and Compliance Office (ECO) and believe it conducted a fair and sufficient investigation as to come up with the findings, conclusions and recommendations which we now submit to the PEM Board.

The PSALM traders confirmed that their offer prices were increased and set at a level that will recover production costs, including losses in the first 2 months. The main objective of a participant, a generator in particular, is to get dispatched whenever the clearing price is greater than variable cost and earn from the market. When a trading participant with substantial share of the market can significantly increase its price offer without the fear of not being dispatched and when the independence and sense of competition among the players in the market has been circumvented in order to control price on the market, there is an abuse of market power.

While the traders said that they were acting independently of each other, it is rather unnatural for all of them to shift to the same strategy of bids based on production cost at the same time. The trading teams confirmed that starting August 30, 2006, price offers were based on total production cost recovery, with the rationale that to do

otherwise would contribute to the ballooning losses of those government-owned generating plants.

The uniformity of their acts was the result of influences on the trading teams that caused the individual traders to act and trade as one. The shift to offers based on cost recovery seems to have also been influenced by NPC pointing out the losses NPC had experienced during the first two months of WESM operation.

It was observed on 30 August 2006 that the three subject plants - Ilijan, Sual and Pagbilao, simultaneously bid at P10,000.00/MW in the 10-11 AM trading period despite the fact that their costs of production are different:¹

- For Pagbilao, its estimated total contract cost is about P [REDACTED]/MWh. The variable cost is around P [REDACTED]/MWh;
- For Sual, the production cost is more or less P [REDACTED]/MWh. The variable cost is about P [REDACTED]/MWh;
- For Ilijan, the variable cost is around P [REDACTED]/MWh.

While all three trading managers explained how they arrived at the P10,000/MW offer, it is unusual that the following were observed in the market: not similar, but identical price offer; beginning on the same day; beginning on the same trading interval and on the same first block; and for trading intervals 11 to 21. Considering also that during the previous day and on the same day (Wednesday) of the previous week, the offers for the three plants for the first block were different and were more or less mostly within the range of P2,000 to P5,000/MWh.

These factors clearly establish that the PSALM through its three trading teams acted in unity to exercise market power during the third billing month, notably starting on 30 August 2006.

There is nothing wrong with increasing offer prices particularly if driven by scarcity of supply during peak demand. On the contrary to induce artificial scarcity by withholding some of their capacity to justify increasing offer prices is totally different and considered uncompetitive behavior. The non-competitive manner of recovering the losses PSALM incurred during the first two months is of great concern since it has a bearing on the integrity of the WESM. A substantial increase in spot price, which shot up by 73% from the first month and 58% from the second month, should not normally occur in a market where participants act competitively with each other, especially when, as in this case, there is no significant change in the demand and supply.

PSALM, acting as one through its three trading teams, exercised market power. They were able to set the market price to a level that they wanted during peak hours. Since the production costs were well below the P10,000/MW and above offered during the 3rd billing month, they abused market power during the peak hours which market power would not have been there had the three trading teams acted competitively and independently with each other.

¹ Figures blocked out for being commercially sensitive.

Based on the facts gathered by the ECO team, PSALM would not have behaved the way it did if it did not have market power. PSALM knew its status in the WESM. It knew that it had marginal plants. It knew that it will be dispatched at the price it offered whether or not it was based on variable or production cost. On 30 August 2006, the increased bids of the three PSALM plants were accepted and became the marginal clearing price. Also, beginning on that date, the bids of the three plants became consistently around P10,000/MWh.

CONCLUSION

PSALM was, understandably, under pressure to decrease its losses and thought it could do so by influencing the bidding strategy of the bidding teams within PSALM and it did so by influencing the actions of the teams (whether known by the individual team members or not). PSALM knew it had market power, so it influenced the teams to act in unison and by doing so it exercised its market power for the purpose of decreasing its losses suffered in the previous two months. PSALM knew, that because it had market power, it could determine an increase in the market clearing price. PSALM conducted its bidding such that market clearing prices were consistently significantly higher than its marginal costs over the month of the period under investigation and because of its market power there was no competitor who could bid under their price to effectively prevent PSALM from being dispatched. PSALM's market power was not the result of a temporary event in the market but existed and still exists whenever PSALM deems it appropriate to exercise it. In these circumstances, the ECO found that PSALM must have been aware that its actions were possible only because it had the power to increase market clearing prices significantly, that it did not have to compete with each other if it did not wish to. By acting in the way it did to raise the market clearing prices to a level significantly higher than its marginal costs in the third month it was behaving anti-competitively and abused its market power.

This conclusion does not mean that PSALM traders themselves acted in bad faith. The ECO did not find evidence to conclude that PSALM traders themselves acted in bad faith. The PSALM trading teams are structured in such a way that its top management can exercise significant influence over each team's individual strategies. The ECO was, therefore, greatly concerned that the traders could be influenced or pressured to increase or decrease prices.

Ilijan, Pagbilao and Sual were in a position of market power. The evidence and analysis of their bid patterns show that they attempted and succeeded in increasing their prices simultaneously. At this stage, it can not be ascertained if the price increases are transitory to recover former financial losses or would be continued.

After a careful and thorough evaluation, based on the evidence presented to it, the investigation team found that PSALM behaved anti-competitively and abused its market power.

Effect on the market and on other trading participants

The elevated prices offered by PSALM during the third billing period had an effect on the market and although there was a substantial increase in price in a relatively short

period of time buyers had to pay a higher price for the electricity purchased from the market. While the WESM does not promise cheaper power, it is expected that the price in the WESM will be reflective of the competitive forces of supply and demand.

The increase in the marginal clearing prices set by the PSALM plants benefited the other generators and plants which bid lower than what Ilijan, Sual and Pagbilao offered. Since the WESM is structured in a way that generators shall be paid not on their bids but based on the marginal clearing price, generators which bid lower than the marginal clearing price benefited from the higher price set by PSALM's plants.

RECOMMENDATIONS

The market is still new and evolving in the Philippines. But the market can not be blind to actual or potential abuse of market power and anti-competitive behavior because the EPIRA, the IRR, the WESM Rules and the MSCE Market Manual have provisions on these.

The following are recommended mitigating measures:

1. Privatization of NPC needs to be accelerated and measures should be implemented to make the sales more attractive and, hence, likely. The ability to now sign supply contracts is a good first step in this regard. In the meantime, measures are needed to promote more genuine competition between NPC and PSALM in the light of their peculiar relationship, market structure, financial consideration, trading responsibility and contractual obligations. This will help guide NPC and PSALM and its trading teams during this stage when the majority of NPC assets have not yet been privatized.

In particular, the PSALM four trading teams must be required to bid independently and compete against each other.

2. Transfer the management and control of at least 70% of the total energy output of IPP power plants under contract with NPC to the IPP administrators.
3. The implementation of the universal levy should be facilitated. This source of funds would alleviate financial difficulties that may be brought about by the operation of the WESM on NPC and PSALM. The universal levy funds may also ease the stress on NPC and PSALM management and may take away the corporate motivations to use market power to increase spot prices in the WESM. (This will be a significant positive step. However, the structure has to ensure independence and competition among sellers.)
4. Additional guidelines for all Trading Participants regarding acceptable and unacceptable behavior in the market are needed.

While participants are expected to behave in a manner that provides competition and not to act in a way that impedes competition, it would perhaps be helpful if additional guidelines can be issued to better define acceptable and unacceptable behavior.

ECO considers the violation in this instance should have been readily known to PSALM so PSALM must have been aware that its actions were possible only because it had the power to increase market clearing prices significantly, and that by acting in the way it did to raise the market clearing prices to a level significantly higher than its marginal costs in the third month it was behaving anti-competitively.

5. A code of conduct/ethics among generators (not only among PSALM trading teams) is needed to help promote competition and prevent inappropriate behavior.
6. Early resolution of the problems brought about by the Pmin and "must offer" WESM rule provisions, and zero bids that allegedly have contributed to the depressed prices during off-peak hours, since these were some of the reasons raised by PSALM for their financial losses.
7. Provide alternative mechanisms to traders to manage their risk, such as contract cover. A generator which is relatively less hedged may have more incentive to increase the spot price. Sufficient contract cover limits market power in the spot market but not necessarily in the contract market.
8. Clear statement for participants on the role of the bid cap or offer price ceiling of P62,000/MWh on the bids of the Trading Participants. The WESM Tripartite Committee in its Joint Resolution No. 2 provides that "The initial level of the offer price ceiling is set at the amount of P62,000/MWh." If the Trading Participant did not exceed the P62,000/MWh does it mean it is not in breach? The ECO believes that it may or may not be in breach, depending on the circumstances. Even if the level of P62,000/MWh level will be reduced, it is important and fair to both generators and consumers if the issue of its purpose as it relates to market power abuse and anti-competitive behavior is clarified. However, the secondary solution of a price cap is less desirable compared to getting the market structure right.
9. The investigation team was made to understand that PSALM Management is not part of the Traders' Code of Ethics. The investigation team was therefore concerned on how any potential conflict between a management instruction and the Code will be dealt with in the future, and that between PSALM and NPC while the majority of the NPC plants and IPPs have not yet been privatized. It is recommended that systems and procedures be put in place to prevent breaking the independence of the PSALM trading teams by upper management and policymakers. It is recommended that there be solutions to prevent the temptation to influence the PSALM traders from increasing or decreasing their offers.
10. Government leaders and managers should be made to understand and accept that the financial performance of NPC and PSALM may suffer reversals due to the introduction of a competitive market. The spot market price may be less than regulated rates prior to WESM operations. The EPIRA recognizes this and has therefore provided for this possibility through the recovery of stranded costs via the universal levy, similar to other jurisdictions that restructured the power industry. Government leaders and managers should also be made to appreciate that a successful WESM operation and the spot electricity prices determined by

competitive market forces are the primary goals relative to the goal of financial performance for NPC and PSALM operations.

11. Bidding restrictions is a form of partial regulation and must be the last resort since it is a form of profit control.

COMPLIANCE, FACTUAL FINDINGS, VALIDITY AND COMPLETION STATEMENT

Having conducted its review of the ECO's Investigation Report, the MSC concludes that the ECO has substantially complied with the procedures provided in the Market Surveillance, Compliance and Enforcement Market Manual without materially affecting the rights of the parties or the credibility of the data and the documents and that the data and the documents upon which the ECO based its factual findings are valid and complete as to being adequate to meet the conclusion.

MSC ACCEPTANCE STATEMENT

The MSC accepts the factual findings of the ECO.

(through teleconference)
Danilo P. Mercado
Chairman


Peter L. Wallace


Rolando A. Danao

(on leave)

Fernando A. Dumuk

APPENDIX 1

DESCRIPTION OF THE MATTER INVESTIGATED

The MSC has reviewed the PEMC-ECO-2006-0001 Investigation Report which was conducted upon the direction of the PEM Board. The PEM Board Corporate Secretary issued a Certification dated 29 September 2006 transmitting the Request for Investigation to the ECO on the following matter:

“Possible abuse of market power and/or anti-competitive behavior by the Power Sector Assets Management and Liabilities Corporation (PSALM) for power plants KEPCO Ilijan, Pagbilao Coal Fired Thermal Power Plant and Sual.”

SUMMARY OF PRELIMINARY MATTERS

On 25 September 2006, the Market Surveillance Committee (MSC) sent a Memorandum/Request for Investigation to the Philippine Electricity Market (PEM) Board regarding increasing WESM Prices. The Memorandum requested the PEM Board to authorize the Enforcement and Compliance Office (ECO) to conduct an investigation of the Power Sector Assets and Liabilities Management Corporation (PSALM) for possible abuse of market power/anti-competitive behavior.

During its meeting on 27 September 2006, the PEM Board acted on the MSC's Request for Investigation and ordered the ECO to conduct an investigation on the Power Sector Assets and Liabilities Management Corporation (PSALM), for alleged anti-competitive behavior and/or abuse of market power. The PEM Board Corporate Secretary issued a Certification dated 29 September 2006 transmitting the Request for Investigation to the ECO.

On 03 October 2006, the ECO served on PSALM, through the office of its President and Chief Executive Officer, Ms. Nieves L. Osorio, the Preliminary Notice of Investigation informing PSALM of the Request for Investigation filed by the Market Surveillance Committee (MSC) with the PEM Board. Attached to the Preliminary Notice of Investigation was MSC's Request for Investigation.

On 05 October 2006, the ECO simultaneously provided copy of the Preliminary Notice of Investigation to the Energy Regulatory Commission (ERC), the PEM Board and PEMC Market Operations (MO), in compliance with Section 7.2.2.5 of the WESM Rules and Section 10.2.6 of the Market Surveillance Compliance and Enforcement (MSCE) Market Manual.

The ECO requested documents and data from PEMC Market Assessment Group (MAG) and the MSC, and the Market Operations.

In a letter dated 12 October 2006, PSALM, through Atty. Maria Luz L. Caminero, Vice-President and General Counsel, requested for an additional period of thirty (30) days or until 12 November 2006, within which to respond to the Preliminary Notice of Investigation.

On 13 October 2006, the ECO denied PSALM's request for additional period of 30 days within which to file the reply to the Preliminary Notice of Investigation.

Instead, the ECO gave PSALM an additional period of five (5) days or until 18 October 2006 to submit its reply to the Preliminary Notice of Investigation.

On 18 October 2006, PSALM submitted its reply to the ECO's Preliminary Notice of Investigation.

On 19 October 2006, the ECO sent a Notice of Conference to PSALM, inviting the latter to a conference on 25 and 26 October 2006. The Notice of Conference was published in the Market Information Website on 20 October 2006 in compliance with Section 10.5.2 of the MSCE Market Manual. The ECO also requested for additional documents.

On 19 October 2006, ECO invited the MO to the conference with PSALM scheduled on 26 October 2006.

The ECO held a conference with PSALM on 25 and 26 October 2006 at the PEMC Office to discuss matters related to the investigation. PSALM also submitted some of the documents requested by the ECO.

On 30 October 2006, the ECO visited the PSALM office in Diliman where the Electricity Trading Teams hold office to conduct an ocular inspection of the offices of the trading teams and continue with the investigation.

On 31 October 2006, ECO sent a Memorandum dated 26 October 2006 to the PEMC Legal Counsel, Atty. Celina R. Encarnacion referring PSALM's request for inhibition of the MSC to her office and/or to the PEM Board for appropriate action. On 13 November 2006, the PEMC Legal Counsel sent to ECO a Memorandum dated 09 November 2006 stating that there is no legal impediment for the ECO to submit its report to the MSC in compliance with the provisions under the MSCEM.

On 03 November 2006, PSALM submitted the additional documents to the ECO. Finally, on 13 November 2006, PSALM submitted its Memorandum.

APPENDIX 2

FRAMEWORK OF COMPETITION

A competitive market, in any industry, results in the lowest price, best allocation of economic resources and the highest quality of service. If the market is structured to be competitive and the marketplace is efficient, it gives the best results for the consumer.

Competition is both a means and an end. It is a means to attain the goal of efficiency. It is an end in itself since it expands the democratic freedom of choice to the people.

According to economic theory, in a perfectly competitive market, every seller is a price taker and cannot influence the market price. Another characteristic of a good and efficient marketplace is that participants cannot predict which way prices will move.

According to the structure-conduct-performance model, the conduct of firms is dependent on the structure of the market and the number and size distribution of competing firms. The market structure should be so designed such that there is a sufficient number of independent sellers to ensure that there is uncertainty in the minds of competitors regarding the pricing strategies and counter-tactics of its rivals.

In terms of conduct, the firms should act as rivals without colluding. If the firms decide to collude rather than compete, the market price will be near the monopoly price. If the seller is not a price taker and recognizes that by reducing the output supplied to the market he can raise the market price and improve its profits, it is said that the seller has market power. A firm with substantial market power might raise its price where no further price increase is possible, that is, to a point where demand is elastic.

Having profits however is not a sign of market power since profits can result from efficiency and improvements in technology.

Competitive conduct should lead to a performance reflecting efficient production and distribution of resources and a level of profit that is sufficient to achieve efficiency and further investment.

One of the major goals of restructuring the power industry is to promote efficiency in the generation sector. The introduction of competition in the generation sector is a means to reach that goal. The underlying principle of competition should not be at bidding the prices per se, but competing to be efficient and thus reducing the cost of generating electricity. The offer prices will correspondingly go down if the costs go down through improvement in efficiency.

Distortion of price signals results in inefficient dispatch and investment decisions with far reaching repercussions to the Philippine economy.

Competition in generation is introduced through the creation of a wholesale electricity spot market (WESM). WESM is a marketplace for the trading of

electricity, a venue for generators/sellers to offer their outputs and specify their prices to buyers.

A successful operation of the WESM would encourage investors to participate in the generation sector and attract potential buyers of the NPC plants. A successful WESM is one that would be perceived as fair to both sellers and buyers.

For the generation sector to be competitive, it must have many sellers, with each seller competing for a share of the market. This is the reason why PSALM had to form multiple trading teams. The 4 trading teams are to compete against each other, and against all the other generators. The same is true for NPC. NPC has registered 9 plants that are to compete in the market. All the trading teams and NPC plants are to act as if they are separate entities to enable the market to have competitive prices.

As separate entities, sellers are to be governed by their own distinct interest - the maximization of the value of their plant portfolios by maximizing the net cash flow or net cash generation (cash receipts less variable cost) of their portfolios. In effect, generators may try to maximize profits or more accurately, maximize net cash flows, and are expected to do so but subject to the constraints imposed by competition from other entities/market participants and to the Market Rules. Profit maximization is pursued subject to the disciplines of the market.

In pursuit of the objective of maximizing net cash flow, a seller may be forced by competition to offer prices that are lower than its production cost (fixed plus variable costs). This makes economic sense. It would be better to sell a product at a price below its production cost but higher than its variable cost, than to price the product at the production cost level and not able to close a sale (not be dispatched).

Offering at high prices in the WESM with resulting high clearing prices is not bad in itself. This is as long as the clearing prices are the products of competition among sellers of electricity. The market in this way is just performing the very important function of "price discovery".

Price movements can be a substantial increase in price in a relatively short period of time or lesser increases in price over a longer period of time. The circumstances that surround each case must be considered to determine if there was abuse of market power or not.

Participants are therefore expected to in general offer/bid at prices equal to or higher than their marginal cost which is mostly composed of its variable costs (including opportunity costs) but not too high that they price themselves out of the market. Rational bidding is expected.

The Electric Power Industry Reform Act (EPIRA) proscribes anti-competitive behavior and abuse of market power. Section 2 of the EPIRA outlines the policy of the State. Section 2 (c) states:

"(c) To ensure transparent and reasonable prices of electricity in a regime of free and fair competition and full public accountability to achieve greater operational and economic efficiency and enhance the competitiveness of Philippine products in the global market;x x x"

Section 45 of the EPIRA provides:

"Section 45. Cross Ownership, Market Power Abuse and Anti-Competitive Behavior. - No participant in the electric industry or any other person may engage in any anti-competitive behavior including, but not limited to, cross-subsidization, price or market manipulation, or other unfair trade practices detrimental to the encouragement and protection of contestable markets. xxx."

Rule 11 of the EPIRA's implementing rules and regulations further expounded on this.

The supply sector is a business affected with public interest. *Electricity suppliers shall be subject to the rules and regulations concerning abuse of market power, cartelization and other anti-competitive or discriminatory behavior to be promulgated by the ERC.*¹

Likewise, the implementing rules and regulation of the EPIRA provides that "a supplier shall comply with the Competition Rules to be prescribed by the ERC concerning abuse of market power, cartelization, and any other anti-competitive or discriminatory behavior."²

The MSCE Market Manual describes what is considered anti-competitive behavior in Section 7.4.3:

"Section 7.4.3 The following conduct of a WESM member shall, among others, be considered as Anti-Competitive Behavior when such conduct significantly affects prices in the WESM:

- (a) Physical withholding or the refusal to offer to sell, or schedule, the maximum available output of reserve to the WESM, by a facility available and capable of producing such output or reserve. This type of conduct may, among others, include:
 - (i) Falsely declaring that a generation facility has been forced out of service, or has otherwise become unavailable or has constraints that limits its output or reserve; or
 - (ii) Operating a generating unit in real-time to produce an output level that is less than the System Operator's dispatch instruction.
- (b) Economic withholding or submitting of bids for a facility that are unjustifiably high so that the facility output or reserve is not, or will not, be dispatched, or so that the bid will set the price."

There are numerous references and papers readily available on market power abuse and anti-competitive behavior. These are produced by leading authorities in competition and the power industry. There are general themes and common threads grounded on sound economic principles. Market power is commonly defined

¹ EPIRA Section 29

² EPIRA IRR Rule 8 Section 4 (f)

as the ability of the seller to set prices above competitive levels and to do so profitably. Profitably means to profit or gain from the act.