



Colin Broomfield  
Utility Regulator  
Queens House  
14 Queen Street  
Belfast  
BT1 6ED

Energia House  
62 New Forge Lane  
Belfast  
BT9 5NF

Tel: +44(0)28 9068 5941  
Fax: +44(0)28 9068 5935

Clive Bowers  
Commission for Energy Regulation  
The Exchange  
Belgard Square North  
Tallaght  
Dublin 24

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Dear Colin & Clive,

**Consultation on the requirement for enhanced market power mitigation measures within generation licences following the acquisition of Premier Power Limited by AES Corporation (SEM-10-073)**

Viridian Power and Energy (VPE) would like to take this opportunity to respond to the Regulatory Authorities (RAs) consultation paper on the requirement for enhanced market power mitigation measures within AES' generator licence following their acquisition of Premier Power Limited. We will first address the market power assessment contained in the paper and then move to briefly discuss the market power mitigation measures available to, and being considered by, the RAs.

As noted in our response to the RAs recent information paper, "SEM Market Power and Liquidity State of the Nation Review" (SEM-10-057), the continued reliance on traditional structure indicators of market power is not appropriate for wholesale electricity markets. Traditional measures of market power, such as Market Share and HHI, may be useful as preliminary or complimentary measures but in accordance with recent developments in this area, electricity specific structural measures are more appropriate and should be adopted within the SEM.

Traditional structural measures fail to account for the specificities of electricity markets and as a result may fail to correctly identify the presence or prevalence of market power. This view is shared by leading academics in this area, as well as the European Commission DG Competition (as evidenced in their Sector Inquiry), CAISO the Californian ISO wherein electricity specific measures were developed (see Sheffrin, 2001) to better reflect market power in electricity markets. Specifically in relation to Ireland, the ESRI has also highlighted the advantages of electricity specific measures over traditional structural indicators. The

appendix to this response provides further details on electricity specific measures of market power and addresses some of the concerns raised by the RAs in the past for not adopting such measures.

Notwithstanding the previous discussion and the limited ability of traditional structural measures to correctly identify the presence and prevalence of market power, the results of the market share and HHI analysis indicate that the acquisition is likely to have limited effect on the ability of the merged entity (AES Total) to exert market power in the SEM. Considering the market share figures for 2010, AES has a market share of capacity of 18%, of which over half is contracted to NIE PPB. Noting the characteristics of some of this capacity, AES (Total) has only a 10% market share in energy, again with over half provided under contract to NIE PPB. None of these measures achieve internationally quoted trigger points for antitrust screening analysis.

The RAs forecasts for 2012, assuming the termination of all NIE PPB contracts, similarly fail to achieve these thresholds with AES (Total) forecast to have a 17% market share in capacity and an 8% market share in energy (in an unconstrained modelling context). Additionally, the acquisition does not significantly affect market concentration with the pre- and post-acquisition values indicating that the SEM market is moderately concentrated. Therefore on the strength of this evidence it does not appear as though the acquisition will have a material effect on competition in the SEM insofar as the acquisition does not create a firm with significant market power (based on market share) or change the concentration in the market from moderately concentrated or to a significant extent. Using traditional antitrust measures and a traditional antitrust approach to merger control, the acquisition does not on the face of it appear to present a threat to competition in the SEM.

Noting the presence of a substantial transmission constraint between Northern Ireland (NI) and the Republic of Ireland, the RAs have also presented market share and HHI analysis of just the NI portion of the SEM. As with the SEM analysis, this is presumably with the aim of trying to identify the potential for the merged entity to exert market power, in this case local market power behind the constraint. However, given all three units in NI are constrained on for system stability, it is unclear whether the incentives to exert market power are analogous to those for a firm with an equivalent market share (%) in a SEM context. Discussion of such incentives is not referred to by the RAs in the paper.

Considering just NI, the merger of two of the three large conventional generators will have a significant impact on market shares and concentration in this segment of the market, particularly with respect to capacity. The contracts with NIE PPB mitigate the market concentration implications, however both pre- and post-acquisition the NI segment of the market is characterised as being highly concentrated ( $HHI > 1,800$ ).

Having market power and exercising it are two very different things. Having market power does not necessarily adversely impact on competition, exercising market power unambiguously does. In order to mitigate any incentives a firm with market power might have to exercise it, the SEM has in place market power mitigation measures as outlined in the paper. In summary these are;

- Bidding principles for generators;
- A Market Monitoring Unit (MMU);
- Directed Contracts (DCs);
- Ring-fencing arrangements; and where necessary,
- Local power mitigation measures.

Clearly all generators in the SEM are subject to the first two market power mitigation measures, while only Viridian Group (NIE PPB) and ESB (EBS PG) are subject to the following two measures. No generator is subject to explicit local market power mitigation measures, although the MMU continuously plays a role in this regard. From the evidence presented in the paper it does not appear as though any generator in NI (including NIE PPB) has significant market power (as defined by reference to market share) pre- or post-acquisition to merit licence requirements over and above adherence to bidding principles and oversight by the MMU.

To the extent that the RAs are concerned with the possibility that AES will, post-acquisition, be in a position to exert local market power, there are a number of issues to further be considered;

1. It is important that the RAs assess the incentives for AES (post-acquisition) in exerting local market power behind a constraint wherein both Kilroot and Ballylumford are constrained on. Also whether these incentives are altered by the status of the NIE PPB contracts.
2. Having considered the incentives, the RAs should further outline the likely outcome of any such action as AES (post-acquisition) does not appear to have sufficient market power (as defined by market share) to adversely affect competition in the SEM.
3. If this is subsequently considered to be a local market power issue, further information on why SEM market power mitigation measures, namely DCs and ring-fencing, are considered appropriate should be provided. On the face of it, it is unclear how either DCs or ring-fencing would be appropriate for addressing local market power concerns where such concerns do not extend to the wider market.
4. If this is exclusively a local market power issue, it is unclear why the RAs are reluctant to adhere to the local market power mitigation measures outlined in AIP/SEM/31/06, AIP/SEM/73/06 and AIP/SEM/116/06. Summarising from AIP/SEM/31/06, the RAs are to “implement a three strand strategy for the control of local market power” (p.17). In outlining the strategy the RAs go on to describe the three strand approach (p.17);

*“First, there is a dependence on the monitoring of bidding principles. If these are successful, then nothing more is needed. Second, where the administration of these principles becomes burdensome, either because the number of inquiries is excessive or the issues in particular inquiries become intractable, the RAs will seek through the imposition of targeted capping of constraint payments to limit the scope for the presumed exercise of local market power to levels which send strong signals that changes are needed without excessively enriching the player with market power. Third, should those capped levels be intolerable to the generator with local market power, full Reliability Must-Run (RMR) treatment becomes the third, and final, fall-back position.”*

It is therefore VPE’s considered view that from the preliminary and limited analysis provided in the paper of the potential market power implications of AES Corporation’s acquisition of Premier Power Limited, it is unlikely that the acquisition will adversely affect competition in the SEM and as such the relevant licences remain fit for purpose as it is unclear that the proposed changes would appropriately address a potential issue with local market power as identified by the RAs. To the extent that the acquisition is likely to give rise to a local market power concern, it is suggested that this be addressed with the local market power mitigation measures available to the RAs as outlined in the SEM Market Power Mitigation Strategy (AIP/SEM/31/06).

Finally, we note from the SEM Committee minutes (August 2010) that this consultation appears consequent upon NIAUR precedent in this area and we would be interested in clarification from the RAs as to whether this approach to mergers and/or reintegrations is to become standard practice of the SEM Committee.

Yours sincerely,



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Derek Scully  
Regulation Manager

*{Encl. Appendix - Extract from VPE response to SEM-10-057}*

# Appendix

## **Extract from VPE response to SEM-10-057 – SEM Market Power and Liquidity State of the Nation Review**

In the mitigation of market power, it is important that the correct structural measures are employed to estimate market power. To date the RAs have been minded to use the HHI measure for the provision of Directed Contracts (DCs). This measure has also been used elsewhere in relation to the generation market in Ireland. In the information paper the RAs indicate that HHI was preferred to RSI as<sup>1</sup>:

1. It focuses on high market concentration throughout the price duration curve, while the RSI focuses only on the peak period (price spikes at times of scarcity), and is incapable of detecting potential for the exercise of market power in shoulder and off-peak periods;
2. The HHI is a more established and widely used index that has been applied to multiple industries; and,
3. The HHI measures competitiveness of an industry while the RSI measures only the power of the largest participant.

Each of these reasons are incorrect, thus highlight a misunderstanding of market concentration measures by the RAs. Specifically;

- The RSI measure can be calculated for any time period, not just peak times. It is also not true to state that peak periods alone are the only times of scarcity and this argument exposes the misunderstanding on behalf of the RAs of the RSI measure. An RSI for baseload, shoulder and peak times is possible and more applicable and informative than HHI measures over similar periods, due to the electricity market specificity of the measure and the characteristics of electricity markets.
- HHI is a widely used measure in many industries but it is not best suited to electricity markets and can be incapable of detecting market power as it focuses on market shares and not the indispensability of a generator to meeting load.
- RSI can be calculated for any market participant, it is not limited to the largest. The measure, by definition, measures the ability of the market, less a participant, to supply the (hourly) load.

Furthermore, the European Commission DG Competition addressed this issue when conducting their sector inquiry into European electricity markets. In their final report the DG Comp stated;<sup>2</sup>

*“Moreover concentration and therefore the HHI index is not a very appropriate indicator for the electricity sector, where, for reasons explained elsewhere, market power can exist at lower levels of concentration than in other industries.”*

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<sup>1</sup> SEM/10/057, p.11.

<sup>2</sup> DG Competition report on energy sector inquiry (SEC(2006)1724, 10 January 2007), p.156.

Also, in preparation of this report, DG Comp commissioned a report from consultants London Economics on the structure and performance of selected electricity markets in Europe, this report found;<sup>3</sup>

*“However, care and caution are required in the use and interpretation of these traditional structural measures with respect to structural phenomenon in electricity markets<sup>27</sup>. These caveats stem mostly from the non-storability of electricity, and the real-time dynamic nature of supply and demand on the grid, thus creating competitive conditions in electricity markets that are very transient – changing hour-by-hour, day-to-day, season-to-season, etc. Therefore, the problem is that an electricity market may be very competitive at certain times of the year/day and potentially very uncompetitive at other times. Traditional concentration measures have generally been found to be unable to reflect this transience in electricity markets, on average.”*

Therefore, the RAs preference for HHI for use in the SEM appears to be flawed. At this stage it appears to be based on a failure to account for specificities of electricity markets and a questionable understanding of alternative measures. Of these alternative measures, the RSI is favoured by the European Commission and within CAISO. Other academic assessments of market power in electricity markets have also found it to be favourable;<sup>4</sup>

*“One of the more attractive indices of market power is the Residual Supply Index, RSI, which was initially developed by the California Independent System Operator.”*

On the weight of this evidence and the apparent misunderstanding of the RSI measure by the RAs, we urge the RAs to review the use of HHI, both for DCs and overall in measure market structure. This work should also include an analysis of market structure based on the RSI measure for relevant times and companies that should be published as part of the consultation paper. The view of international academics and policymakers is that the HHI is not appropriate in relation to electricity markets and as such an alternative measure should be adopted.

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<sup>3</sup> London Economics Report for the European Commission DG Competition, 2007; Structure and Performance of Six European Wholesale Electricity Markets in 2003, 2004 and 2005 – Part 1, p.54. Available at:[http://ec.europa.eu/competition/sectors/energy/inquiry/electricity\\_final\\_part1.pdf](http://ec.europa.eu/competition/sectors/energy/inquiry/electricity_final_part1.pdf)

<sup>4</sup> Newbery, D., 2009; Predicting Market Power in Wholesale Electricity Markets, EUI Working Papers RSCAS 2009/03, p.4. Available at:[http://cadmus.eui.eu/dspace/bitstream/1814/10620/1/EUI\\_RSCAS\\_2009\\_03.pdf](http://cadmus.eui.eu/dspace/bitstream/1814/10620/1/EUI_RSCAS_2009_03.pdf)