

28 September 2007

The Energy Efficiency Working Group Secretariat

Emailed to: E2WGSecretariat@industry.gov.au

**COMMENTS ON THE NATIONAL FRAMEWORK FOR ENERGY EFFICIENCY  
CONSULTATION PAPER, STAGE 2, SEPTEMBER 2007**

Thank you for the opportunity to comment on this important Consultation Paper dated September 2007

Energy Response is a Demand Side Response (DSR) Aggregation company and as such has a keen interest to see greater use of Demand Side alternatives in the NEM because they deliver:

- Substantial economic and enabling benefits to the market (estimated to be up to \$3bn per annum and growing to over \$5bn per annum by 2020)
- Unique environmental benefits (including Greenhouse Gas abatement and water savings from reduced generation at peak times and from reduced line losses)
- Significant consumer benefits including lower prices for electricity when all other factors point to significant increases in the price of electricity in the foreseeable future.

Demand Side Response (DSR) is the ability for an end use customer to reduce their demand when asked to do so and be paid for their actions. While this is a very simple concept, the reality is that very few policy makers, policy bound agencies or their advisors understand how it works or the benefits and dynamics of using DSR.

Energy Efficiency (EE) and DSR are, of course, intrinsically linked and often overlap, which explains our interest in this Consultation Paper. However, what may not be as obvious is that energy market reform would recoup much of the benefits (ie the \$3bn per annum and growing), which effectively could pay for the EE and DSR programs.

Energy Response is pushing strongly for the introduction of reforms to the National Electricity Market (NEM) that, if adopted, will allow greater participation from the Demand Side. For example, we have proposed to the AEMC's Reliability Panel (who may be looking to introduce a permanent mechanism that will allow DSR to be used for reserve capacity all of the time) to have DSR used to clip peaks from our generation to abate Greenhouse Gas production and/or to help conserve water that is used for cooling by generators and/or for emergency response (ie for security of the grid). We are also preparing a submission to the MCE on the proposed National Frameworks for Distribution Networks, where we are promoting the use of non-network alternatives (including the use of DSR) for capex deferral and to manage network constraints.

There is about 3,000-4,000MW of DSR available in the NEM and this DSR which is best utilised intermittently (mainly at peak times) and is:

- At the load site therefore there is an immediate 7-10% saving in the transport of electricity (and consequently, because the I<sup>2</sup>R loss is greatest at that time, results in a disproportionately larger saving of CO<sub>2</sub> emissions at that time) and this saving is in addition to any EE or other savings that are available at that time,
- Of a lower CO<sub>2</sub> impact than the equivalent generation, and
- Easily aggregated through Energy Response's scheduling and dispatch process and does not negatively impact business productivity or the safety of the companies that provide it.

What is clear is that several of the studies behind the aforementioned reports show a complete lack of understanding of the benefits and dynamics of end user oriented programs. The NEM in particular has much to gain from the participation of Demand Side programs (including EE programs), which are effectively locked out of the NEM because there is a strong attitudinal bias against Demand Side activities and this bias is strongly reinforced by regulations and policy that favour the supply side.

Energy Response is now active in three electricity markets, and very likely, before the end of this financial year, we will add another market. As such we are in a position to compare between markets and this comparison shows the NEM in very poor light in regard to the treatment and use of Demand Side potential.

This matter of energy market reform and the lack of Demand Side activities are of critical importance to NFEE2. As stated earlier it is estimated that inefficiencies from the lack of Demand Side participation in the NEM costs the Australian economy at least \$3bn per annum and growing. This is equivalent to the last round of tax cuts provided by the Federal Government or, in other terms, it is 15% of the cost of retail electricity to end users. This value (in the inefficiencies) should be captured and used to pay for the EE programs.

Only in NSW is there a successful regulatory framework for Distribution Network companies that allows the benefits from the market to pay for Demand Side activities.. Programs promoted by IPART and paid via the D-factor in the Network's price determination encourage those Networks to seek non-network alternatives before considering build options. In some cases the preferred option might be an energy efficient lighting program and/or an appliance replacement program and/or home insulation program and/or a DSR program. The market gets the benefit of improved efficiencies therefore the market must pay regardless of whether the efficiency benefit was a result of EE or DSR programs.

Capturing the value from the market to pay for EE is not difficult and makes good sense. However, the Consultation Paper makes no mention of how these programs will be paid for, and in the end the success of these EE initiatives will very likely depend on the security of funding for these programs. It must be remembered that the NEM like any other market; it exists to transfer the benefits in one form in exchange for a benefit in another form, so ideologically the NEM can monitor EE activities and distribute that benefit accordingly.

To understand the link between energy market reform and NFEE2 we need look no further than the NEM Objective<sup>1</sup>:

The objective of the National Electricity Market, as stated in the National Electricity Law is:

To promote efficient investment in, and efficient use of, electricity services for the long-term interests of consumers of electricity with respect to price, quality, reliability, and security of supply of electricity and the reliability, safety and security of the national electricity system.

We are also concerned about some of the specific actions that will flow from NFEE2 should the proposals be adopted. For example, banning electric storage hot water services will automatically and significantly diminish the business case for the Advanced Metering Infrastructure (AMI) project, currently being implemented in Victoria and under consideration for implementation nationally by the MCE. The stored heat in the water heater is used to even-out the demand peaks by the electricity Network company through their Demand Management programs (at least in some states). We accept that storage heating, be it gas or electric, is wasteful but economic modelling must be undertaken across the entire value and CO2 emission chains to understand the true costs and benefits. The impact of this ban alone may be significant enough to pause or permanently halt the national AMI project.

Clearly the interests of the community (locally, nationally and globally) are best served when we synchronise our efforts and strive for true efficiency gains across the entire energy spectrum and not at just one level.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Michael Zammit', with a stylized flourish at the end.

Michael Zammit  
Managing Director

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<sup>1</sup> <http://www.aemc.gov.au/electricity.php>