Energetics / Submission

SUBMISSION TO THE NATIONAL FRAMEWORK FOR ENERGY EFFICIENCY STAGE 2

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Energetics thanks the Ministerial Council on Energy for the opportunity to comment on the National Framework for Energy Efficiency stage 2.

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THE NATIONAL FRAMEWORK FOR ENERGY EFFICIENCY

The National Framework for Energy Efficiency (NFEE) is a joint Federal and State Government initiative. It aims to unlock the significant but un-tapped economic potential associated with the increased uptake of energy efficient technologies and processes across the Australian economy. It also has an objective to achieve a major enhancement of Australia's energy efficiency performance by reducing energy demand and lowering greenhouse gas emissions.

In August 2004, the Ministerial Council on Energy (MCE) announced a major advance nationally for energy efficiency, productivity and the environment, by agreeing a comprehensive set of measures comprising NFEE Stage One.

NFEE Stage 1 activities are well advanced and planning is currently underway for NFEE Stage 2, to commence on 1 July 2008. NFEE Stage 2 will comprise the continuation of some existing measures, along with the introduction of new measures.

An MCE bulletin outlines the process for NFEE Stage 2 and includes a link to the consultation paper. The purpose of the consultation is to inform all industry stakeholders of the proposed NFEE Stage 2 measures and their rationale, and to seek feedback for the purposes of finalising the measures for MCE endorsement.

ENERGETICS EXPERIENCE

Energetics is the leading Australian energy and greenhouse consultancy with over 23 years of experience in assisting some of Australia's largest organisations to reduce energy consumption and Greenhouse emissions and assist government entities with policy frameworks.

Energetics endorses, as a minimum, policy development that seeks reductions in national greenhouse gas (GHG) emissions to 60% of 1990 levels by the middle of the century. We recognise the critical role energy efficiency and public reporting must play to achieve this goal.

This submission to the MCE is based on our experience and specifically the information and data related difficulties we recognise as significantly hindering the advancement of energy efficiency and reporting initiatives.

DATA & INFORMATION MANAGEMENT

Energetics' submission to the MCE seeks to highlight the critical importance of data and information management to the government's efficiency and reporting initiatives. Specifically it outlines the difficulties faced in collecting the necessary data and outlines the support required from government to rectify this position.

Critical Element

Primary source energy data from energy suppliers is the single underlying element to all efficiency and reporting initiatives. Without consistent and reliable energy data, the business case for efficiency projects can not be substantiated and accurate reporting can not be supported. The integrity of the government's reporting and efficiency initiatives and a future carbon trading market will be seriously compromised if the quality and completeness of data cannot be guaranteed.

Energetics' experience demonstrates that the collection of primary source energy data is often protracted and its collation impeded by inconsistency in format and content between Australia's major energy suppliers. These issues will place a significant burden on organisations, such as participants to the Federal government's Energy Efficiency Opportunities (EEO) program, in responding to efficiency and reporting initiatives. Foreseeable issues are:

- Delays in gathering data for efficiency or reporting requirements;
- Increased costs in resolving format inconsistencies; and
- Increased probability of data errors due to inconsistent data formats.

ACCESS TO ENERGY DATA

Reliable and timely access to data is critical for the accurate planning and reporting of major energy users. However, much of Australia's energy data is still based on access to paper invoices or direct requests made to the supplier. Requests for current or historical data are often subject to protracted delays and require considerable follow-up.

The effect of these delays will be to place pressure on reporting timelines and potentially even require estimated data to be substituted as an interim measure. This will further affect the costs of data collection and accuracy of reporting.

Energetics recommends a legislated obligation for all energy retailers and 3rd party suppliers to provide billing data in a standard electronic format with web based data access to enable large energy users to support their reporting and efficiency initiatives.

DATA CONSISTENCY

Even with the rapidly consolidating range of retailers, data is still supplied in varying and inconsistent formats. These inconsistencies, summarised below, result in significant rework and increased costs for data collection and analysis:

- No common bill structure exists between the retailers. As an example different descriptors and units of measure are used making the integration of data overly complex and expensive;
- There is no common standard for billing statistics. A wide range of statistics are used for a range of billing factors (i.e. Power factor, loss factor, peak, shoulder, off peak);
- No common data exchange format (such as .csv or .xml) exists for billing and metering requiring multiple format conversions or reading algorithms;
- The reporting of network losses varies across the retailers. This requires a detailed understanding of the individual retailers format and for manipulations to the data to compensate for reporting variations;
- The reporting of demand varies greatly between retailers with some preferring KW to KVA units of measure. Again this requires the data to be manipulated before it can be collated into a standard reporting format or used for efficiency analysis;
- Retail and network time frames are often not aligned causing billing data to be delayed awaiting components of the bill to be collected;
- Meter reading periods can overlap. For example some retailers close the reading period on the 1st of the month and start the next reading period on the same day;
- Variable meter reading dates across retailers / suppliers making the collation of data more complex and requiring the estimation of some data;
- There is no consistent methodology for estimating missing billing data. This situation will necessitate individual respondents to derive missing data and result in varying estimation techniques.

As with the timely provision of data these inconsistencies require significant time and investment to correct. The manipulation of data required to integrate the various sources into a common format for reporting also increases the probability of errors, thus potentially compromising data integrity.

Energetics recommends that a standard data format is implemented for all energy billing data to manage the burden on reporting organisations and safeguard the integrity of data provided to efficiency and reporting initiatives.

SMART METERS

Projecting forward, all large energy users will require more sophisticated provision of energy data to support efficiency initiatives such as demand management load shifting technologies. To support these initiatives, traditional monthly billing data will be too delayed to enable timely analysis and decision making.

Moving to Smart meters with daily access to interval data will provide greater opportunities for energy and demand efficiency initiatives and support the provision of timely and accurate data collection.

Energetics recommends that all new energy meters installed in large energy user operations are Smart meters with rapid upload and 2 way communications capability.

CONCLUSION

Energetics has over 23 years experience in the field of energy and Greenhouse management. Our experience has shown that data and information management is crucial to achieving the requirements of Government reporting and greenhouse initiatives. However the collection and collation of this data is complex and will place a considerable burden on participants of Government initiatives.

The complexity of data collection is compounded by poor access to data and the complete lack of standards for its provision and format.

To support the integrity of the Government's efficiency and reporting initiatives and to manage the burden on participants Energetics recommends:

- A legislated obligation for all energy retailers and 3rd party suppliers to provide billing data in a standard electronic format with web based data access for large energy users;
- Implementation of a standard data format for all energy billing data to manage the burden on reporting organisations and safeguard the integrity of data provided to efficiency and reporting initiatives;
- A requirement that all new energy meters installed in large energy user operations are Smart meters with rapid upload and 2 way communications capability.

Energetics tables this submission on behalf of our business partners, our clients comprise many of the largest ASX listed organisations and we are working with over 50 participants of the EEO program. The issues outlined in this submission are being grappled with by these organisations in responding to their reporting and efficiency requirements.