

Friday, 26 August, 2011

Australian Energy Market Commission
PO Box A2449
SYDNEY SOUTH NSW 1235

Dear Commissioners:

Re: Submissions to Stage 3 DSP Review (Project Number EPR 0022)

We are writing to provide input into the Australian Energy Market Commission's (AEMC) Stage 3 Review of Demand Side Participation (DSP).

Billcap is a Melbourne-based company developing a web portal to help residential and SME consumers to understand, control and reduce their electricity usage and spend using the interval data collected by smart meters. Billcap's intent is to offer its service free-of-charge to consumers, which can only be achieved by utilising the existing industry data infrastructure (e.g. the AEMO B2B Hub), thereby avoiding the need to deploy new and costly hardware into the user's home. The service will be an independent '3rd party' offering (i.e. it will be independent of electricity retailers or distributors). If complex time-of-use tariffs were introduced, the value of the Billcap service in helping users manage their spend would further increase.

Our response has been structured around a subset of the questions outlined in the AEMC's Issues Paper.

5. What are considered the drivers behind why consumers may choose to change their electricity consumption patterns? Please provide examples or evidence where appropriate?

One of the most important drivers of consumer behaviour-change is access to usable and actionable information, coupled with price signals. Currently consumers receive monthly or quarterly bills which provide little or no insight into what is driving the top-level consumption and spend figures. This lack of transparency significantly blunts the effectiveness of any price signal, including the peak/off-peak differential. The deployment of smart meters currently underway in Victoria provides a mechanism to collect valuable time-of-use consumption information, but the existing regulatory framework still fails to allow for that information to be made available to consumers in a useful and actionable (and importantly, independent) way.

8. Are there other DSP options that are not currently available to consumers, but could be available if currently available technologies, processes or information were employed (or employed more effectively) in the electricity (or a related) market.

Billcap is currently unable to make its service available to consumers due to an inability to efficiently access a consumer's interval data, even if that consumer has given their explicit consent. This access could easily be provided using existing industry information infrastructure and processes such as the AEMO B2B Hub and NEM12 file formats

Independent web portal services could enable a range of new **DSP options** for residential and SME users:

- *Energy Budgeting and Conservation:* Allow a consumer to view and analyse their energy usage and spend to understand how it was spread over particular weeks, days or even half-hours. This information can then be used to allow the consumer to set an “energy budget”, track their performance against this budget, and forecast upcoming bill amounts.
- *Peak Load Reduction through competitions and social engagement:* Increase consumer engagement with energy management by adding a social overlay such as competitions involving friends and neighbours to accomplish particular goals. This social dimension can be harnessed to deliver sophisticated smart grid functionality such as geographically targeted demand response (or “peak load reduction”) services. An example would be running a competition during an expected peak load event where entrants that use 20% less electricity than their ‘norm’ for that time of day could win a prize (e.g. an iPad), or receive a financial incentive of some kind.
- *Personalised Efficiency Tips:* Provide a consumer with personalised energy tips based on their demographics and unique consumption profile. The interval data can also help quantify the potential benefits available from implementing the efficiency tips; an important feature given consumers are more likely to act if they believe the advice is relevant to their situation¹.
- *Benchmarking Against Neighbours:* Help a consumer understand how their usage compares to neighbours in similar dwellings. Although simple, benchmarking of this type can create a powerful “call to action” for consumers by showing them the potential savings available by adopting best practice, and harnessing their competitive instinct. Research has shown that relatively unsophisticated bill benchmarking can result in savings of 1.5-3.5%².
- *Tariff Comparison:* Help a consumer identify the best electricity tariff for their unique consumption profile (i.e. mix off peak and off-peak, overall consumption level, and seasonal

¹ Desmedt, J, Vekemans, G, and Maes, D 2008, ‘Ensuring Effectiveness of Information to Influence Household Behaviour’, *Journal of Cleaner Production*, 17: 455-462.

² New York Times 2010, *Finding the 'Weapons' of Persuasion to Save Energy* (<http://www.nytimes.com/cwire/2010/06/21/21climatewire-finding-the-weapons-of-persuasion-to-save-energy-8137.html?pagewanted=1;title>)

mix). The interval data could also be used to quantify the potential savings available by switching to another tariff, driving much needed competition in the industry.

Independent web portals like the one outlined above provide a number of important benefits:

- They provide consumers with valuable (and importantly, independent) support in making use of their interval data to understand, control and reduce their electricity usage and spend;
- They provide a platform to enable smart grid services such as peak load reduction;
- They are targeted at the residential consumer sector, a traditionally difficult part of the demand-base to reach and influence;
- They are low cost, leveraging existing infrastructure (e.g. the smart meters being deployed in Victoria and AEMO data infrastructure) rather than involving the deployment of new equipment into the home.

10. Are there any specific market conditions which may need to be in place to enable third parties to facilitate consumer decision making and capture the value of flexible demand? Please provide examples and evidence as appropriate.

For 3rd party information service providers to be able to offer the DSP options outlined above, a number of **market conditions** must be in place. In general these conditions relate to the ability for consumers to choose to use 3rd parties to help them access and make use of their consumption/interval data. For the services to be free-of-charge and have any meaningful uptake, the access to data must be achieved using existing industry information infrastructure, rather than by deploying costly new hardware (e.g. in-home displays or ZigBee dongles) into a consumer's home. Necessary market conditions for this to take place include the following:

- Meters that measure time of consumption (i.e. produce interval data);
- 3rd party information service providers can access a consumer's interval/usage data, once that consumer has consented to this access;
- 3rd party information service providers can access NMI Standing Data to verify the identity of a new consumer (e.g. by matching NMI to address; and
- There is a way for 3rd party information service providers to be alerted when a new consumer takes over an NMI (to ensure privacy obligations to the prior consumer are met).

17. To what extent do customers understand how they can reduce their electricity bill? What information do consumers need in order to increase their understanding of how they can reduce and manage their electricity consumption and hence bills?

Currently consumers are given little support and assistance in understanding how they can reduce their electricity bill. The smart meters being deployed across Victoria will collect information that could be valuable in helping fill that gap, however there is currently nothing to ensure that they are given access to the data, and helped to make use of it in a simple and accessible way. 3rd party information service providers can help to fill this gap.

Customers would benefit greatly from being able to access the following information:

- A detailed breakdown of when they are using power and the associated costs of that usage;
- Alerts when their usage is exceeding target/budgeted levels;
- How their usage compares with other houses with a similar demographic profile;
- Personalised energy conservation and efficiency tips based on their demographics and usage profile; and
- The electricity retailer and tariff/plan that would best suit their usage profile.

It is important to note that this information is best provided by an independent source (i.e. a party other than their electricity retailer). A consumer's retailer has a conflict of interest given that a customer's profitability is driven by the amount of energy they use, creating a clear disincentive for the retailer to encourage energy conservation or efficiency. It is also unreasonable to expect that a customer's retailer will help them identify superior tariffs/plans with other retailers.

18. What issues are associated with provision of existing information in the market? Are there arrangements that could improve delivery of such information and by whom?

The main issue with provision of existing information is that there is no allowance for consumers to use a 3rd party to help them access, analyse and interpret their usage information. Interval data in its raw form is too complex for consumers to be able to make use of, and electricity retailers are unlikely to provide the required support to make use of the data given the significant conflicts of interest already outlined. The arrangements that could improve delivery of such information are the creation of a new defined role for *information service providers* in the market. The specific market conditions necessary for this to happen have been outlined above in our response to Question 10.

35. Are there market failures which mean regulation is needed in some areas to ensure appropriate market conditions are in place?

The biggest market failure under the current regulatory arrangements is that there is a structural misalignment of incentives not being addressed. Consumers don't have access to the interval data produced by their smart meters, and even if they did have access to the data, understanding and utilising the raw data is likely to be beyond the scope of all but the most sophisticated users. At the same time the only party currently in a position to help them process the data, their electricity retailer, has misaligned incentives. Retailers maximise profit by retaining customers and by ensuring they use as much energy as possible (particularly at non-peak times). An electricity retailer has no incentive (and in fact has a disincentive) to see a consumer reduce their overall energy consumption, improve their energy efficiency, or find a more suitable tariff with another retailer. For this reason there is a valuable role for independent (3rd party) information service providers in helping consumers understand and make use of their consumption data.

Although not the focus of this stage of consultation, we would like to take the opportunity to flag a set of changes to the current ***market and regulatory arrangements*** which we believe would address this issue:

- Create a new category of NEM participant (e.g. *information service providers*), which has information-access rights but cannot participate in financial/energy transactions;
- Give *information service providers* access to existing AEMO information infrastructure such as MSATS the B2B Hub; and
- Create an obligation for network service providers (i.e. distributors) to provide a consumer's interval/consumption data to an *information service provider* through the B2B Hub, if the customer has given their consent for that *information service provider* to access the interval data on their behalf. This process could operate in parallel with the process used by network service providers to send interval data to retailers for bill preparation.

We are available at any time to discuss this submission in more detail, and can be reached at ben@billcap.com or on (03) 8317 0161.

Yours sincerely,



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