



## Department of State Development, Business and Innovation

121 Exhibition Street  
Melbourne Victoria 3000  
Australia  
GPO Box 4509  
Melbourne Victoria 3001  
Australia  
Telephone: (03) 9651 9999  
Facsimile: (03) 9651 9770  
www.dsdbi.vic.gov.au  
DX210074

Richard Owens  
Acting Senior Director  
Energy Market Commission  
PO Box A2449  
Sydney South NSW 1235

Submitted online: [www.aemc.gov.au](http://www.aemc.gov.au)

### **Re: Customer access to information about their energy consumption**

#### **AEMC reference ERC0171**

The Department of State Development, Business and Innovation (DSDBI) appreciates the opportunity to make a submission in connection with the proposed Rule change regarding customer access to information about their energy consumption.

DSDBI provides energy policy and regulatory advice to the Minister for Energy and Resources through its Energy Sector Development Branch (ESDB). ESDB is also responsible for government involvement in national energy policy development, state energy development and the Advanced Metering Infrastructure (AMI) program where it has a lead role coordinating stakeholder activity and undertaking related policy development for the AMI or 'smart meters' program.

Smart meters, which are now standard metering in Victoria, capture detailed information about a consumer's electricity consumption in 30 minute intervals throughout the day. This data will be increasingly important, as it provides consumers with new ways of understanding their energy use and managing their costs.

This submission from DSDBI will:

- Update the AEMC on arrangements in Victoria for the provision of data to customers;
- Provide some comment on issues to be addressed where Victoria has relevant experience; and
- Provide some comment on SCER's proposed drafting of the Rule change.

## **A single data format**

Straightforward access to data for customers with a smart meter is key to many of the benefits consumers will derive from the new metering. While customers have regulatory access to their own data there have been practical barriers to customers accessing and interpreting this data, in part because there is not a single format for the provision of this data.

Retailers and distributors currently provide their customers their electricity consumption data in a number of different formats, adding complexity to the market and making it difficult for customers to obtain their data. Having multiple data formats in the market can also make it difficult for specialised third party service providers to easily assist consumers.

Smart meter data can be used to help consumers understand and manage their electricity consumption and compare tariff offers such as flexible and other forms of new pricing. It is anticipated new service providers will deliver a range of services to help consumers, including making targeted recommendations about energy efficiency or helping a consumer to sell electricity generated from rooftop solar PV into the market, much of this advice will rely on easy access to the consumers data in a standard format.

A single industry data standard will help ensure that:

- consumers benefit from competition through new products and services;
- consumers can find the best tariff for them and benefit from electricity bill savings;
- incentives and increased opportunities are available for utilities and other specialised service providers to innovate and provide more and better services to consumers; and
- more efficient energy utility operations are realised through reduction in costs and better consumer engagement.

The introduction of a single industry standard for, in particular, interval data will help to ensure that consumers can access their data in a standard accessible format and can use this data for a range of services to help them realise cost savings.

The Victorian Government supports an approach that provides consumers with:

- timely and easy access to their interval data in as close to real time as possible;
- a standardised and useable electronic format for interval data;
- the ability to share their data with other parties who can assist them to manage their electricity consumption and costs; and
- confidence that the data continues to be secure and protected at all times.

## **Provision of consumption data to customers for My Power Planner**

The introduction of flexible pricing for customers was a major new policy initiative, which was enabled through the introduction of smart meters. The Victorian Government considered it was important that Victorians had been sufficiently informed about these new pricing options when they

became available, including having the ability to test which price offers (whether flat or flexible) would best meet their particular needs and circumstances.

To support the introduction of flexible pricing<sup>1</sup>, Government undertook a communications campaign to let Victorians know that flexible pricing was available, how it worked and where to find more information. Government also put in place new consumer protections while consumers' understanding of flexible pricing grows and to give them confidence to consider new pricing options.

To ensure that consumers could compare these new tariffs, Government also developed a new price comparison tool, *My Power Planner*,<sup>2</sup> which is capable of independently and accurately comparing all offers available to the customer (including flat and flexible pricing offers).

*My Power Planner* has been designed to be Victoria's independent source of electricity price comparisons (while Victorian consumer arrangements are outside the National Energy Consumer Framework) and has now replaced the Essential Services Commission's *Your Choice* electricity price comparison service. In the future, *My Power Planner* will also provide additional support for gas and solar customers.

*My Power Planner* is a world leading price comparator that enables customers to use their own interval data to determine what pricing offer will be best for them. In doing this it considers all price structures using actual or simulated interval data independent of the customer's current tariff structure.<sup>3</sup> This approach enables customers to test whether they will be better off switching to a flat tariff or a flexible tariff or any other structure.

In order to facilitate the provision of interval data to customers for use in MPP, Victorian regulation was used to ensure customers could obtain their data for this purpose. While the requirements for the provision of this data are similar to those in the ERC<sup>4</sup> the new regulations<sup>5</sup> included that:

- where residential or small business customers request consumption data for the purpose of price comparison, that it is interval data that must be provided, not some other form of data such as billing data; and
- a minimum of 12 complete consecutive calendar months interval is to be provided where this is available.

Despite our view that a single data standard is necessary, to assist businesses complying with the new regulation and minimise the impact on industry, Government reached an agreement with industry that the price comparator would be designed to read existing formats already in use by industry for the provision of interval data to consumers that met a required standard.<sup>6</sup> This meant that companies that already had made interval data available to customers in a standard format did

---

<sup>1</sup> Flexible pricing commenced in September 2013

<sup>2</sup> <https://mpp.switchon.vic.gov.au/>

<sup>3</sup> The comparator also allows customers be to be assigned a reference profile by answering some questions which is used for the pricing comparison if customers do not use their own interval data.

<sup>4</sup> Energy Retail Code Clause 27.2

<sup>5</sup> See section 11, Advanced Metering Infrastructure (AMI Tariffs) Order, Government Gazette No. S 216, 19 June 2013

<sup>6</sup> To be accepted as standard a format need to be was robust and 'uniform', e.g. not varying from file to file in terms of descriptors.

not need to develop a new approach to deliver the data to customers who wanted to use the new comparator.

Additionally, the agreement included that, for those organisations that did not already have a format, they would use one of the data provision formats already being used in the market. These were published by Government to stakeholders and are shown in the Attachment.

This means that while there is regulation requiring retailers and distributors to provide interval data to customers for the comparator, the formats themselves were not subject to regulation; rather they were agreed between retailers, distributors and Government. Despite this agreed approach, there have been teething issues; many consumers seeking to obtain and bring their interval data files to MPP have found it challenging and difficult. These issues will no doubt be resolved over time as the requirements become more widely understood by industry and more customers request data of this type.

Based on this experience with the provision of interval data to consumers we recommend that:

- a defined standard format (or formats) should be mandated for use in specific applications, such as price comparators, to ensure that these data files are readable;
- where data is to be used in specific applications such as a price comparator, a minimum of 12 complete consecutive months is required so that the analysis can properly take into account seasonal impacts and deliver the most accurate result;
- early consideration must be given to the time format of consumption files (e.g. whether they will be in AEST or some other time standard) as time formats of interval data files significantly impacts the readability of the consumption data;
- while our strong preference is for a single standard, formats for a specific purpose such as a price comparator or for delivery to specific industry bodies could use an industry standard format for efficiency, particularly where these files are not expected to be used by the consumer for other purposes;
- while the Consultation Paper notes “that it would not mandate a delivery method and noted that consumers are likely to drive how the data is delivered”, interval data files must nevertheless be provided electronically (there have been some unfortunate cases where this has been hardcopy); and
- a consumer portal or hub based approach for delivering standard format interval data to consumers would ultimately increase the efficiency of, and improve outcomes for, data delivery relative to other approaches (which could include requiring consumers to contact call centres to request data).

### **Comments on the draft Rule and proposed Guideline**

In terms of providing guidance to AEMO for the development of the Guideline, it must be clear whether the Guideline is prescribing a single format or alternatively only setting a minimum industry standard requirement.

In providing guidance to AEMO for the development of the Guideline, it also needs to be clear whether the “provision” or “the delivery of data” under the Guideline includes displaying the data on a screen in addition to the data being downloaded. In this case we note that a number of the consumer portals provided by distributors and retailers display consumption data (including interval data) to customers, often graphically, and that the format for display purposes may be a matter that can be left to the market to determine.

We note that the proposed draft Rule change uses the term “raw data format” – our view is that this wording is potentially confusing, and suggests that the data somehow is different from metering data. Our view is that it should be clear that data provided to customers is metering data (under Chapter 7 of the NER), and where necessary interval metering data, and that generally this will be data that is validated and substituted as necessary.

It is unclear from the proposed drafting whether the Metering Data Provider (MDP) must respond to a request from a customer for the provision of data. The drafting proposes that (draft clause 7.16 (g)) “MDPs must comply with the data provision procedures”. However, the MDP is not included in draft clause 7.7 (a) (7) which sets out which parties are to provide data under the proposed Rule.

It is not clear that it would be efficient to require MDPs to provide data under the Guideline. If the AEMC intends to require MDPs (where the MDP is different from the DNSP) to provide data under the proposed Rule, our view is that that further analysis should consider:

- costs of MDPs complying with the requirement, including the set up costs when retailer and distributors will be required to provide the data;
- the additional complexity if customers are expected to become familiar with another party in the market, noting there is no formal relationship between customers and the MDP; and
- an analysis of the circumstances under which the MDP can meet the customer’s request for data provision that cannot already be met by the distributor or the Responsible Person (currently either the retailer or distributor).

For any further information regarding this submission please contact David Cornelius on (03) 9092 1873.

Yours sincerely,

(signed)

Ben Ferguson  
Acting Executive Director, Energy Sector Development Branch

## My Power Planner (MPP) file format conditions – Conditions that apply to all consumption files supported by the MPP website

1. File must contain a minimum of 12 complete consecutive months of general consumption 30 minute interval data.<sup>7</sup> MPP will read the most recent 12 months of data. The most historical date of the data in that 12 months period must not be older than three years prior to January 1 of the current year.
2. If additional streams (i.e. controlled load, generation etc.) are in the file, they must also have 12 complete consecutive months of 30 minute interval data that is concurrent to the general consumption data.<sup>8</sup>
3. Time format defined in each standard must be consistently applied (i.e. if file is defined as 'AEST', file must always be in AEST. If file is defined as 'local time', then the file must always be in local time).
4. File must not contain any blank rows or columns in the file which aren't identified in the example of the standard.
5. Header record must be an exact match to the standard.
6. Must contain only one NMI.<sup>9</sup>
7. Files for residential and SME customers are presented in identical format.
8. Time and date is always in chronological order (i.e. 1-28/29/30/31 {date} and 00:00-23:59 {time})
9. If multiple matching consumption streams exist, and they are shown separately, they will be summed.<sup>10</sup>
10. MPP file formats are defined in the 'file conditions' and 'example file' - any deviation from the prescribed format/content may lead to files being rejected by MPP.

---

<sup>7</sup> This is a condition for acceptance of upload into MPP – Not a condition of providing files to consumers. A retailer or distributor may well meet their obligations by providing a file to a consumer that does not meet this condition, however the MPP may not be capable of reading it (i.e. 12 months of general consumption data, but only 3 months of generation data does not meet condition 2).

<sup>8</sup> As per reference 1.

<sup>9</sup> As per reference 1.

<sup>10</sup> E.g. if there are two separate controlled load streams in a file, then MPP will sum the two streams as part of the upload functionality.

### Consumer Information and Price Comparison website – Standard format 1 – File conditions

File Type	CSV file
Header Record	NMI, METER SERIAL NUMBER, CON/GEN, DATE, ESTIMATED?, 00:00 - 00:30, 00:30 - 01:00, 01:00 - 01:30, 01:30 - 02:00, 02:00 - 02:30, 02:30 - 03:00, 03:00 - 03:30, 03:30 - 04:00, 04:00 - 04:30, 04:30 - 05:00, 05:00 - 05:30, 05:30 - 06:00, 06:00 - 06:30, 06:30 - 07:00, 07:00 - 07:30, 07:30 - 08:00, 08:00 - 08:30, 08:30 - 09:00, 09:00 - 09:30, 09:30 - 10:00, 10:00 - 10:30, 10:30 - 11:00, 11:00 - 11:30, 11:30 - 12:00, 12:00 - 12:30, 12:30 - 13:00, 13:00 - 13:30, 13:30 - 14:00, 14:00 - 14:30, 14:30 - 15:00, 15:00 - 15:30, 15:30 - 16:00, 16:00 - 16:30, 16:30 - 17:00, 17:00 - 17:30, 17:30 - 18:00, 18:00 - 18:30, 18:30 - 19:00, 19:00 - 19:30, 19:30 - 20:00, 20:00 - 20:30, 20:30 - 21:00, 21:00 - 21:30, 21:30 - 22:00, 22:00 - 22:30, 22:30 - 23:00, 23:00 - 23:30, 23:30 - 00:00
Interval Reading	kWh value identifies the consumption for the associated interval
Units	kWh (X.XXX)
Multiple Meters	Multiple meters are identified at column 2 ("METER SERIAL NUMBER"), additional register data will be cumulated against their respective consumption stream (as identified in column 3 {"CON/GEN"})
File Time Zone	Local time. E.g.: When daylight savings time commences in April, a doubled reading would show for the two affected intervals (0200-0229 and 0230-0259) and when daylight savings concludes in October, a zero reading would show for the two affected intervals (0200-0229 and 0230-0259).
Date Format	DD/MM/YYYY
File Order	File ordered by date. Ordered by: least recent (top of the file) to most recent (bottom of the file)
Consumption Identifier	Consumption is identified at column 3 (header "CON/GEN"). Column must be populated with the following identifiers, in the following order: "Consumption" (mandatory); followed by "Generation" (if applicable); followed by "Controlled Load Consumption" (if applicable).



### Consumer Information and Price Comparison website – Standard format 2 – File conditions

<b>File Type</b>	CSV file
<b>Header Record</b>	NMI, METER SERIAL NUMBER, CON/GEN, DATE, ESTIMATED?, 00:00 - 00:30, 00:30 - 01:00, 01:00 - 01:30, 01:30 - 02:00, 02:00 - 02:30, 02:30 - 03:00, 03:00 - 03:30, 03:30 - 04:00, 04:00 - 04:30, 04:30 - 05:00, 05:00 - 05:30, 05:30 - 06:00, 06:00 - 06:30, 06:30 - 07:00, 07:00 - 07:30, 07:30 - 08:00, 08:00 - 08:30, 08:30 - 09:00, 09:00 - 09:30, 09:30 - 10:00, 10:00 - 10:30, 10:30 - 11:00, 11:00 - 11:30, 11:30 - 12:00, 12:00 - 12:30, 12:30 - 13:00, 13:00 - 13:30, 13:30 - 14:00, 14:00 - 14:30, 14:30 - 15:00, 15:00 - 15:30, 15:30 - 16:00, 16:00 - 16:30, 16:30 - 17:00, 17:00 - 17:30, 17:30 - 18:00, 18:00 - 18:30, 18:30 - 19:00, 19:00 - 19:30, 19:30 - 20:00, 20:00 - 20:30, 20:30 - 21:00, 21:00 - 21:30, 21:30 - 22:00, 22:00 - 22:30, 22:30 - 23:00, 23:00 - 23:30, 23:30 - 00:00
<b>Interval Reading</b>	kWh value identifies the consumption for the associated interval
<b>Units</b>	kWh (X.XXX)
<b>Multiple Meters</b>	Multiple meters are identified at column 2 ("METER SERIAL NUMBER"), additional register data will be cumulated against their respective consumption stream (as identified in column 3 {"CON/GEN"})
<b>File Time Zone</b>	Local time. E.g.: When daylight savings time commences in April, a doubled reading would show for the two affected intervals (0200-0229 and 0230-0259) and when daylight savings concludes in October, a zero reading would show for the two affected intervals (0200-0229 and 0230-0259).
<b>Date Format</b>	DD/MM/YYYY
<b>File Order</b>	File ordered by date. Ordered by: least recent (top of the file) to most recent (bottom of the file)
<b>Consumption Identifier</b>	Consumption is identified at column 3 ("CON/GEN"). Column must be populated with the following identifiers, in the following order: "Consumption" (mandatory); followed by "Consumption" (if applicable {controlled load}); followed by "Generation" (if applicable). The second 'Consumption' record for each day is <u>always</u> the controlled load record. Where multiple records for controlled load or generation exist, they are merged into a singular record for each category.



### Consumer Information and Price Comparison website – Standard format 3 – File conditions

<b>File Type</b>	CSV file
<b>Match Records</b>	<p>Line 1 = NMI, 6xxxxxxxx, NETWORK, [Distributor]</p> <p>Line 2 = Stream ID, Meter 9xxxxxxx, [Ex/Bx], [Ex/Bx], KWH, ['CONSUMPTION' or 'CONTROLLED' or 'SOLAR']</p> <p>Line 3 = Local Time</p> <p>Line 4 = Date/Time, 0:00, 0:30, 1:00, 1:30, 2:00, 2:30, 3:00, 3:30, 4:00, 4:30, 5:00, 5:30, 6:00, 6:30, 7:00, 7:30, 8:00, 8:30, 9:00, 9:30, 10:00, 10:30, 11:00, 11:30, 12:00, 12:30, 13:00, 13:30, 14:00, 14:30, 15:00, 15:30, 16:00, 16:30, 17:00, 17:30, 18:00, 18:30, 19:00, 19:30, 20:00, 20:30, 21:00, 21:30, 22:00, 22:30, 23:00, 23:30, Quality, Total</p> <p>Line 5 = Date of consumption (yyyymmdd)</p>
<b>Interval Reading</b>	kWh value identifies the consumption for the end of the interval (i.e. at 0:00, the value, X.XXX, represents the consumption for the period 0:00-0:29)
<b>Units</b>	kWh (X.XXX)
<b>Multiple Meters</b>	Multiple meters are identified in the "Meter" identification field. Additional registers will be shown in subsequent columns, i.e. "Stream ID, Meter, 9xxxxxxx, 91xxxxxxx, 92xxxxxxx"
<b>File Time Zone</b>	File is in local time. No data shifting will be performed by MPP.
<b>Date Format</b>	General (eg yyyymmdd)
<b>File Order</b>	<p>File ordered by:</p> <p>Consumption blocks (E.g. General Consumption, date Jan-Dec, Controlled Load, date Jan-Dec); then by Date (least recent {top of the consumption block} to most recent {bottom of the consumption block})</p>
<b>Consumption Identifier</b>	<p>Consumption is identified on the second line of each consumption block, at column 3 then Column 6. Column 3 will differentiate between general consumption and controlled load (alpha numeric – e.g. E1/E2/x) and generation (alpha numeric – e.g. B1/B2/x). If value at column 3 is alpha numeric, then column 5 will be read to identify if it is 'CONSUMPTION' , 'CONTROLLED' or 'SOLAR'. Column 6 must contain:</p> <p>'CONSUMPTION' if consumption;</p> <p>'CONTROLLED' if controlled load; and</p> <p>'SOLAR' if solar/generation.</p>

### Consumer Information and Price Comparison website – Standard format 3 – File demonstration

NMI		6xxxxxxxxx NETWORK																					
Stream ID	Meter	9xxxxxxxx	B1	B1	KWH	SOLAR																	
Local Time																							
Date/Time	0:00	0:30	1:00	1:30	2:00	x	x	x	x	x	x	x	x	x	x	x	21:30	22:00	22:30	23:00	23:30	Quality	Total
20120101	0.9	0.863	0.919	0.888	0.9	x	x	x	x	x	x	x	x	x	x	x	0.163	0.163	0.125	0.163	0.119	A	X.XXX
20120102	0.9	0.863	0.919	0.888	0.9	x	x	x	x	x	x	x	x	x	x	x	0.163	0.163	0.125	0.163	0.119	A	X.XXX
20120103	0.9	0.863	0.919	0.888	0.9	x	x	x	x	x	x	x	x	x	x	x	0.163	0.163	0.125	0.163	0.119	A	X.XXX
Total for Period																						X.XXX	
Stream ID	Meter	9xxxxxxxx	E1	E1	KWH	CONSUMPTION																	
Local Time																							
Date/Time	0:00	0:30	1:00	1:30	2:00	x	x	x	x	x	x	x	x	x	x	x	21:30	22:00	22:30	23:00	23:30	Quality	Total
20120101	0.9	0.863	0.919	0.888	0.9	x	x	x	x	x	x	x	x	x	x	x	0.163	0.163	0.125	0.163	0.119	A	X.XXX
20120102	0.9	0.863	0.919	0.888	0.9	x	x	x	x	x	x	x	x	x	x	x	0.163	0.163	0.125	0.163	0.119	A	X.XXX
20120103	0.9	0.863	0.919	0.888	0.9	x	x	x	x	x	x	x	x	x	x	x	0.163	0.163	0.125	0.163	0.119	A	X.XXX
Total for Period																						X.XXX	
Stream ID	Meter	9xxxxxxxx	E2	E2	KWH	CONTROLLED																	
Local Time																							
Date/Time	0:00	0:30	1:00	1:30	2:00	x	x	x	x	x	x	x	x	x	x	x	21:30	22:00	22:30	23:00	23:30	Quality	Total
20120101	0.9	0.863	0.919	0.888	0.9	x	x	x	x	x	x	x	x	x	x	x	0.163	0.163	0.125	0.163	0.119	A	X.XXX
20120102	0.9	0.863	0.919	0.888	0.9	x	x	x	x	x	x	x	x	x	x	x	0.163	0.163	0.125	0.163	0.119	A	X.XXX
20120103	0.9	0.863	0.919	0.888	0.9	x	x	x	x	x	x	x	x	x	x	x	0.163	0.163	0.125	0.163	0.119	A	X.XXX
Total for Period																						X.XXX	

### Consumer Information and Price Comparison website – Standard format 4 – File conditions

<b>File Type</b>	CSV file
<b>Header Record</b>	AccountNumber, NMI, DeviceNumber, DeviceType, RegisterCode, RateTypeDescription, StartDate, EndDate, ProfileReadValue, RegisterReadValue, QualityFlag
<b>Interval Reading</b>	kWh value identifies at column 9 shows the consumption for the 30 minute interval between the time stamp at 'StartDate' and the time stamp 'EndDate'.
<b>Units</b>	kWh (X.XXX)
<b>Multiple Meters</b>	Multiple meters are identified in the "RegisterCode" column as a prefix to the #(consumption ID).
<b>File Time Zone</b>	Local time. E.g.: When daylight savings time commences in April, a doubled reading would show for the two affected intervals (0200-0229 and 0230-0259). When daylight savings concludes in October, there are no entries (lines) shown for the two affected periods (0200-0229 and 0230-0259).
<b>Date Format</b>	DD/MM/YYYY TT:TT
<b>File Order</b>	File ordered by date. Ordered by: least recent (top of the file) to most recent (bottom of the file)
<b>Consumption Identifier</b>	<p>Consumption is identified at column 5 (header "RegisterCode"). Column must contain the following identifiers, in the following order:</p> <ul style="list-style-type: none"> <li>"...#B1" (if applicable); followed by</li> <li>"...#E1" (mandatory); followed by</li> <li>"...#E2 (/E3/Ex)" (if applicable).</li> </ul> <p>This standard adheres to the following rules:            E1 always represents general consumption            E2/E3/Ex always represents controlled load            B/B1/Bx always represents generation</p>

### Consumer Information and Price Comparison website – Standard format 4 – File demonstration

AccountNumber	NMI	DeviceNumber	DeviceType	RegisterCode	RateTypeDescription	StartDate	EndDate	ProfileReadValue	RegisterReadValue	QualityFlag
XXXXXXXX	6XXXXXXXXXX	XXXXXX	XXXX	XXXXX#B1	x	1/01/2013 0:00	1/01/2013 0:29	0.9	0	N
XXXXXXXX	6XXXXXXXXXX	XXXXXX	XXXX	XXXXX#E1	x	1/01/2013 0:00	1/01/2013 0:29	0.863	0	N
XXXXXXXX	6XXXXXXXXXX	XXXXXX	XXXX	XXXXX#E2	x	1/01/2013 0:00	1/01/2013 0:29	0.919	0	N
XXXXXXXX	6XXXXXXXXXX	XXXXXX	XXXX	XXXXX#B1	x	2/01/2013 0:30	2/01/2013 0:59	0.9	0	N
XXXXXXXX	6XXXXXXXXXX	XXXXXX	XXXX	XXXXX#E1	x	2/01/2013 0:30	2/01/2013 0:59	0.863	0	N
XXXXXXXX	6XXXXXXXXXX	XXXXXX	XXXX	XXXXX#E2	x	2/01/2013 0:30	2/01/2013 0:59	0.919	0	N
XXXXXXXX	6XXXXXXXXXX	XXXXXX	XXXX	XXXXX#B1	x	3/01/2013 1:00	3/01/2013 1:29	0.9	0	N
XXXXXXXX	6XXXXXXXXXX	XXXXXX	XXXX	XXXXX#E1	x	3/01/2013 1:00	3/01/2013 1:29	0.863	0	N
XXXXXXXX	6XXXXXXXXXX	XXXXXX	XXXX	XXXXX#E2	x	3/01/2013 1:00	3/01/2013 1:29	0.919	0	N

### Consumer Information and Price Comparison website – Standard format 5 – File conditions

<b>File Type</b>	CSV file
<b>Header Record</b>	NMI, IntervalReadDate, MeterSerialNo, EnergyDirection, UOM, RegisterID, ControlledLoad, 0:15, T1, 0:30, T2, 0:45, T3, 1:00, T4, 1:15, T5, 1:30, T6, 1:45, T7, 2:00, T8, 2:15, T9, 2:30, T10, 2:45, T11, 3:00, T12, 3:15, T13, 3:30, T14, 3:45, T15, 4:00, T16, 4:15, T17, 4:30, T18, 4:45, T19, 5:00, T20, 5:15, T21, 5:30, T22, 5:45, T23, 6:00, T24, 6:15, T25, 6:30, T26, 6:45, T27, 7:00, T28, 7:15, T29, 7:30, T30, 7:45, T31, 8:00, T32, 8:15, T33, 8:30, T34, 8:45, T35, 9:00, T36, 9:15, T37, 9:30, T38, 9:45, T39, 10:00, T40, 10:15, T41, 10:30, T42, 10:45, T43, 11:00, T44, 11:15, T45, 11:30, T46, 11:45, T47, 12:00, T48, 12:15, T49, 12:30, T50, 12:45, T51, 13:00, T52, 13:15, T53, 13:30, T54, 13:45, T55, 14:00, T56, 14:15, T57, 14:30, T58, 14:45, T59, 15:00, T60, 15:15, T61, 15:30, T62, 15:45, T63, 16:00, T64, 16:15, T65, 16:30, T66, 16:45, T67, 17:00, T68, 17:15, T69, 17:30, T70, 17:45, T71, 18:00, T72, 18:15, T73, 18:30, T74, 18:45, T75, 19:00, T76, 19:15, T77, 19:30, T78, 19:45, T79, 20:00, T80, 20:15, T81, 20:30, T82, 20:45, T83, 21:00, T84, 21:15, T85, 21:30, T86, 21:45, T87, 22:00, T88, 22:15, T89, 22:30, T90, 22:45, T91, 23:00, T92, 23:15, T93, 23:30, T94, 23:45, T95, 0:00, T96
<b>Interval Reading</b>	kWh value is identified at each 30 minute interval (E.g. 'T2, T4, T6' etc.). The time shown at each interval represents the end of the interval period. No value is shown at the 15 minute interval (E.g. 'T1, T3, T5' etc.). <sup>11</sup>
<b>Units</b>	kWh (X.XXX)
<b>Multiple Meters</b>	Multiple meters are identified at column 3 ("MeterSerialNo"), additional register data will be cumulated against their respective consumption stream (as identified in columns 6 and 7 {"RegisterID" and "ControlledLoad"})
<b>File Time Zone</b>	AEST
<b>Date Format</b>	DD/MM/YYYY
<b>File Order</b>	File ordered by: Consumption blocks (E.g. Controlled Load, date Jan-Dec, General Consumption, date Jan-Dec); then by Date (least recent {top of the consumption block} to most recent {bottom of the consumption block})
<b>Consumption Identifier</b>	Consumption is identified at column 7 (header "ControlledLoad"). This column will be populated with 'y' or 'n' for controlled load. This standard adheres to the following rules: E1/E2/E3/Ex always represents general consumption or controlled load. Controlled load is identified at column 7. B/B1/Bx always represents generation.

<sup>11</sup> MPP will read the value as shown at the 30 minute interval fields. If 15 minute interval data is provided in the file, the MPP will not read it, it will take only the value shown in the 30 minute fields (i.e. T2, T4, T6, etc) and assume it is the consumption for that full 30 minute interval. The file will still be supported if (additional) 15 minute interval data is included.

### Consumer Information and Price Comparison website – Standard format 5 – File demonstration

NMI	IntervalReadDate	MeterSerialNo	EnergyDirection	UOM	RegisterID	ControlledLoad	0:15 T1	0:30 T2	0:45 T3	1:00 T4	x	x	x	x	x	x	...	...	x	x	x	x	x	x	x	x	23:15 T93	23:30 T94	23:45 T95	0:00 T96
6xxxxxxxxx	1/01/2012	9xxxxxxxx	x	KWH	E2	Y	0 A	0.9 A	0 A	0.9 A	x	x	x	x	x	x	...	...	x	x	x	x	x	x	x	x	0 A	0.9 A	0 A	0.9 A
6xxxxxxxxx	2/01/2012	9xxxxxxxx	x	KWH	E2	Y	0 A	0.863 A	0 A	0.863 A	x	x	x	x	x	x	...	...	x	x	x	x	x	x	x	x	0 A	0.863 A	0 A	0.863 A
6xxxxxxxxx	3/01/2012	9xxxxxxxx	x	KWH	E2	Y	0 A	0.919 A	0 A	0.919 A	x	x	x	x	x	x	...	...	x	x	x	x	x	x	x	x	0 A	0.919 A	0 A	0.919 A
6xxxxxxxxx	1/01/2012	9xxxxxxxx	x	KWH	B1	N	0 A	0.9 A	0 A	0.9 A	x	x	x	x	x	x	...	...	x	x	x	x	x	x	x	x	0 A	0.9 A	0 A	0.9 A
6xxxxxxxxx	2/01/2012	9xxxxxxxx	x	KWH	B1	N	0 A	0.863 A	0 A	0.863 A	x	x	x	x	x	x	...	...	x	x	x	x	x	x	x	x	0 A	0.863 A	0 A	0.863 A
6xxxxxxxxx	3/01/2012	9xxxxxxxx	x	KWH	B1	N	0 A	0.919 A	0 A	0.919 A	x	x	x	x	x	x	...	...	x	x	x	x	x	x	x	x	0 A	0.919 A	0 A	0.919 A
6xxxxxxxxx	1/01/2012	9xxxxxxxx	x	KWH	E1	N	0 A	0.9 A	0 A	0.9 A	x	x	x	x	x	x	...	...	x	x	x	x	x	x	x	x	0 A	0.9 A	0 A	0.9 A
6xxxxxxxxx	2/01/2012	9xxxxxxxx	x	KWH	E1	N	0 A	0.863 A	0 A	0.863 A	x	x	x	x	x	x	...	...	x	x	x	x	x	x	x	x	0 A	0.863 A	0 A	0.863 A
6xxxxxxxxx	3/01/2012	9xxxxxxxx	x	KWH	E1	N	0 A	0.919 A	0 A	0.919 A	x	x	x	x	x	x	...	...	x	x	x	x	x	x	x	x	0 A	0.919 A	0 A	0.919 A

### Consumer Information and Price Comparison website – Standard format 6 – File conditions

File Type	.XLS
Match Record	MPP will read each worksheet in the file until it finds one which matches the 'Header Record' below.
Header Record	NMI, METER SERIAL NUMBER, CON/GEN, DATE, ESTIMATED?, UNIT OF MEASURE, 00:00 - 00:30, 00:30 - 01:00, 01:00 - 01:30, 01:30 - 02:00, 02:00 - 02:30, 02:30 - 03:00, 03:00 - 03:30, 03:30 - 04:00, 04:00 - 04:30, 04:30 - 05:00, 05:00 - 05:30, 05:30 - 06:00, 06:00 - 06:30, 06:30 - 07:00, 07:00 - 07:30, 07:30 - 08:00, 08:00 - 08:30, 08:30 - 09:00, 09:00 - 09:30, 09:30 - 10:00, 10:00 - 10:30, 10:30 - 11:00, 11:00 - 11:30, 11:30 - 12:00, 12:00 - 12:30, 12:30 - 13:00, 13:00 - 13:30, 13:30 - 14:00, 14:00 - 14:30, 14:30 - 15:00, 15:00 - 15:30, 15:30 - 16:00, 16:00 - 16:30, 16:30 - 17:00, 17:00 - 17:30, 17:30 - 18:00, 18:00 - 18:30, 18:30 - 19:00, 19:00 - 19:30, 19:30 - 20:00, 20:00 - 20:30, 20:30 - 21:00, 21:00 - 21:30, 21:30 - 22:00, 22:00 - 22:30, 22:30 - 23:00, 23:00 - 23:30, 23:30 - 00:00
Interval Reading	kWh value identifies the consumption for the 30 minute interval defined.
Units	kWh (X.XXX)
Multiple Meters	Multiple meters are identified at column ("METER SERIAL NUMBER"), additional register data will be cumulated against their respective consumption stream (as identified in columns 3 {"CON/GEN"})
File Time Zone	AEST
Date Format	DD/MMM/YYYY
File Order	File ordered by date. Ordered by: least recent (top of the file) to most recent (bottom of the file)
Consumption Identifier	Consumption is identified at column 3 (header "Con/Gen"). Column must be populated with the following identifiers, in the following order: 'Consumption' for general consumption (mandatory); followed by 'Controlled Load Consumption' for controlled load or dedicated load (if applicable); followed by 'Generation' for generation (if applicable); followed by



### Consumer Information and Price Comparison website – Standard format 7 – File conditions

File Type	.CSV
Match Record	Column 2 must contain date (DD/MM/YYYY), column 3 must contain time (tt:tt), column 9 must contain state ('VIC')
Header Record	There is no static header record. Column 1 must always contain NMI. Column 2 must always contain date (DD/MM/YYYY). Column 3 must always contain time (tt:tt) Column 4 must always contain Meter No. Column 5 must always contain stream ID ('E./'B..'). Column 7 must always contain consumption values. Column 10 must always contain 'VIC'. Column 12 must always contain controlled load flag ('y/'n').
Interval Reading	kWh value identifies the consumption for the 30 minute interval defined. Intervals are defined in column 3.
Units	kWh (X.XXX)
Multiple Meters	Multiple meters are identified at column 4, additional register data will be cumulated against their respective consumption stream (as identified in columns 5 {consumption} and column 12 {controlled load 'Y'/'N'}).
File Time Zone	AEST
Date Format	DD/MM/YY
File Order	File ordered by: Consumption blocks (E.g. General Consumption, date Jan-Dec, Controlled Load, date Jan-Dec); then by Date (least recent {top of the consumption block} to most recent {bottom of the consumption block})
Consumption Identifier	Consumption is identified at column 5: E1/E2/Ex for General Consumption or Controlled Load B1/B2/Bx for Generation Then: Consumption and controlled load are defined at column 12: Where column 5 reads E1/E2/Ex, column 12 will confirm controlled load with a 'y' or confirm general consumption with an 'n'.

