

This Retail Customer Data Guide has been prepared by ERM Power for the purpose of complying with the AEMO Meter Data Provision Procedures V1.1 September 2015. This guide provides information on how you are able to request metering data and provides assistance on the interpretation of data in the NEM12 file.

How can I request metering data?

You may request your metering data by emailing us on service@ermpower.com.au or calling us on 13 23 76. If you are a large customer, please contact your Account Manager.

What information do I need to provide to receive my metering data?

If you request metering data we need sufficient information to verify you're authorised to make the request on behalf of the business. You will be required to satisfy our 3 point identification check by confirming information such as:

- Account Name
- NMI (National Metering Identifier)
- Name (to verify that you are the authorised contact)
- Postal address or billing address/email
- ABN
- Contact phone numbers.

If you are a third party requesting data on behalf of a customer, you must provide evidence of consent from the customer that you have authority and submit this with the data request. Sufficient evidence can be provided by submitting a Metering Data Request Form.

What metering data can I request?

If you have a meter that supports interval data you can request either a Summary Report or Detailed Data File (NEM12 format report). If you have an accumulation meter (basic meter that is read quarterly) you are able to request a Summary Report. You can request metering data relating to a period within two years prior to the date of the request, provided we were the retailer for the period.

In what format will my metering data be provided?

The Summary Data Report will be provided in a Portable Document Format (PDF). The Detailed Data File (NEM12 file), will be provided in a Comma Separated Values (CSV) format which you may open in a program such as Microsoft Excel. We will provide your requested data electronically via an email. Alternatively we are able to provide a hard copy Summary Data Report, if you request this format. All electronically delivered files are provided in a zipped/compressed format.

What is the Summary Data Report?

The Summary Data Report will include the volume of energy for each energy flow type (e.g. peak or off peak), diagrammatic representation of energy volumes for each flow type and metering reading dates for the specified time period.

What is the Detailed Data File (NEM12)?

The data file provided by ERM Business Energy is in a NEM12 format (explained below) and contains information about energy usage at your property. In particular, the Detailed Data File includes interval metering data for your metering installation which provides your usage for each 15 or 30 minute interval every day for the period requested.

NEM12 Customer Guide: How do I read the Detailed Data File?

The file is constructed in such a way as to show the volume of electricity in each 30 min or 15 min interval at your property and also provides your usage patterns in a pre-defined and consistent way. The format of the file is CSV so it can be read into most software applications including Excel.

Metering data is provided in different units of measure, such as usage provided in Kilowatt hours of energy (kWh) and demand or capacity in Kilowatts (kW). The file has 4 primary sections identified as the header, NMI configuration, detailed metering data and the end record. The NMI detailed metering data may include up to 3 sub-parts which provide additional information. Each section is identified via a Record ID.

100 ¹	NEM12 ²	201509160628 ³	POWMEMDP ⁴	ERMPower ⁵								
200	NXXX000820	E1E2Q1Q2 ⁶		E1 ⁷	N1 ⁸	7677169 ⁹	KWH ¹⁰	15 ¹¹				
300	20150813 ¹²	50391 ¹³	50032 ¹⁴	28640	28768	28576	99288	28352	28160	...	A ¹⁵	20150915141500 ¹⁶
900 ¹⁷												

¹ Row Type ID

² File Type

³ File creation date & time

⁴ Data provider company

⁵ Retailer

⁶ NMI suffixes available for NMI

⁷ NMI suffixes

⁸ Data stream ID

⁹ Meter number

¹⁰ Unit of measure

¹¹ Interval length

¹² Data Date YYYYMMDD

¹³ Total usage or reactive energy in Unit of Measure specified in 200 line

¹⁴ Total usage or reactive energy in Unit of Measure specified in 200 line

¹⁵ Data quality flag:

A = Actual data

E = Forward estimate data

F = Final substitute data

S = Substitute data

V = Variable (actual & substituted) data exists for the day

¹⁶ Data last updated date & time

¹⁷ End of file

Understanding the NEM12 record types

The record ID identifies what information is to be expected in the data.

Record ID	Description
100	The Header record; indicates the retailer, the date and the version of the file.
200	NMI Data details record; provides information about the NMI, meter configuration, register and meter including the interval length and unit of measure applicable to the proceeding data in addition to the next scheduled read date.
300, 400, 500	Interval data record; the '300' data record contains the 15 or 30 minute interval values corresponding to the '200' record. The data record also includes an indication of the quality of the data for example; Actual or Final or Substitute. Interval metering data is presented in time sequence order, with the first interval for a day being the first interval after midnight for the interval length that is programmed into the meter. The '400' record, if applicable, indicates whether all the reads are actuals or substitutes and the readings where substitutes were used. The '500' record, if applicable, contains additional information.
900	Indicates the end of the record set which started with the '100' record.

Identifying the usage type

In order to determine which set of data relates to which energy usage stream it is necessary to interpret the data captured in the '200' record. General usage is normally identified with a register ID or NMI Suffix such as 'E1', whereas demand is more often identified as 'Q1'.

A NMI Suffix identifies readings associated with each meter at your property. If you have 2 interval meters measuring your electricity usage, to determine the total you will need to add together each corresponding interval of data for each NMI suffix, ensuring you align the date and time of each interval.

If you have a generation system at your property you will also have a 'B1' NMI Suffix/ID in the file we send you. The reading you receive will depend on if you have a "Net" or "Gross" generation system. The data within the 'B1' data stream is energy that your installation is generating which may have been fed back into the distribution network or used at your site.

Timing adjustments

The interval data provided by us is in Australian Eastern Standard Time (AEST). If you are being billed on a time based tariff such as Time of Use, the 15 or 30 minute data intervals need to be combined to your peak/off-peak/shoulder definition. Any adjustments due to Daylight Savings Time (DST) must be taken into consideration. This means you will need to shift the data by 1 hour at 2am on the date that daylight savings time changes.

More information

For more information regarding the content and format of the detailed data file for your NMI, refer to the AEMO metering data specification at:

<http://www.aemo.com.au/Electricity/Retail-and-Metering/Metering-Services/Meter-Data-File-Format>

Or email us at service@ermpower.com.au

Definitions and interpretation

Term	Definition
AEMO	Australian Energy Market Operator.
Average Daily Load Profile	A load profile across a day based on the average of interval metering data for the period of the request for the metering data.
Controlled load	Controlled load applies to electricity usage that is separately metered and controlled by a party other than the customer. It is used for operating storage water heaters, thermal storage space heaters, and other approved fixed wired appliances. Controlled load energy usage values are positive in metering data files.
Energy flow type	Energy flow over a period of time for which there is a separate energy measurement, e.g. General Supply, Controlled Load and Generation.
General supply	General light and power electricity usage (does not include controlled load usage).
Generation	Volume of energy generated by the retail customer, i.e. energy flow to the grid from the connection point. Where the generated energy is measured separately from energy usage, the total generated energy volume is provided and is positive in value. Where the generated energy measurement is combined with energy usage values, the total generated energy volume is not provided and the energy usage values may be negative when excess generation occurs for a period.
Maximum Demand	Maximum Demand (sometimes referred to as Capacity) is calculated by identifying the highest half hourly interval usage that occurs during each "To Date" period and multiplied by two to obtain the maximum demand expressed in kW. For 15 minute intervals, the highest 15 minute interval usage that occurs during each "To Date" period is identified and multiplied by four to obtain the maximum demand expressed in kW.
NEM12 file	A file containing metering data and other metering information in a standard format used by industry participants.
NMI	National Metering Identifier for the property.
UOM	Unit of Measure - kWh (energy), kW (demand/capacity). Refer to clause 4.1 for format details.
Usage	Consumption of electrical energy.