



Retail Customer Guide to Metering Data Report

Power of Choice Consumer Access to Data



Retail Customer Guide

How to Use this Guide

This guide should be read together with the metering data reports provided to you.

If you requested metering data for a premise with an interval meter, (sometimes referred to as a Type 5 meter, AMI meter or Smart meter), then you will have received two reports, an interval metering data summary report and an interval metering data detailed report.

If you have requested metering data for a premise with an accumulation meter, (sometimes referred to as a Type 6 meter or Basic meter), then you will have received a single accumulated metering data summary report.

These reports are compliant with AEMO's Metering Data Provision Procedures.

At the end of this document is a table containing a general description of terms that may assist you in understanding the terms used in this guide. If you require a more detailed description, you will find the procedures and other information resources on AEMO's web site.

Interval Metering Data Reports

There are two reports provided for a premise with a smart meter:

1. An Interval Metering Data Summary Report.
2. An Interval Metering Data Detailed Report.

The Interval Metering Data Summary Report is a PDF document and can be opened and viewed using (for example) Adobe Acrobat Reader. The report includes:

- Total volume of energy for each energy flow type for the specified time period by month.
- Diagrammatic representation of energy volumes for each energy flow type for the specified time period and Maximum Demand.
- From Date and To Date for the available metering data within the specified time period.
- Average Daily Load Profile graphic over the last twelve months if you have been an occupier at the property for more than 12 months or over the period since you became an occupier of the property in the last 12 months.
- An indication if estimated data is included in any of the time periods.

The Interval Metering Data Detailed Report is a CSV text file and can be opened and viewed using a text editor (for example Notepad) or a spreadsheet (for example Microsoft Excel). This file complies with AEMO's Meter Data File Format Specification NEM12 & NEM13. This file can be loaded into the VEC comparison tool that then uses your actual electricity metering data to search for energy products.

Note: All the interval data provided is in Eastern Standard Time and any adjustments due to Daylight Savings Time must be taken into consideration when using the interval data. It is important to note here that your retailer will make adjustments for Daylight Savings Time when they calculate your bill.

The detailed report contains the metering data in blocks of information:

- The 200 record that contains NMI data details.
- The 300 record that contains interval data.
- The 400 record that contains interval events.

In every detailed report, there will be at least one 200 record. Your detailed report will include multiple 200 records if your NMI has multiple meters or your meter has multiple registers configured. For each 200 record, there can be multiple 300 records - one for each day of the date range requested.



If a 300 record includes a mixture of actual and substituted meter readings, there will be associated 400 record(s). If a 300 record contains only actual or only substituted meter readings, a 400 record is not provided for that day.

The following is an illustrative sample of the detailed report for a premises with a single meter and general consumption only:

200	VABD000163	E1	E1	E1	N1	ABCD1234	kWh	30	
300	20030501	42.6,,,,,,19.8	A			20030101153445	20030102023012		
300	20030502	47.4,,,,,,12.8	S55	0	Substituted	20030102153445	20030103023012		
300	20030503	50.1,,,,,,21.5	V			20030103153445	20030104023012		
400	1	23	A						
400	27	31	S55	0	Substituted				
400	32	48	A						
500	20030504	50.1,,,,,,21.5	A			20030104153445	20030105023012		

How to Read the NME Data Details Record (200 Record)

Example record: 200,VABD000163,E1,E1,E1,N1,ABCD1234,kWh,30,

Record Indicator	NMI	NMI Configuration	Register ID	NMI Suffix	MDM Data Stream Identifier	Meter Serial Number	UOM	Interval Length	NSRD
200	VABD000163	E1	E1	E1	N1 or Blank	ABCD1234	kWh	30	20030104 or Blank

Field Name	Value / Meaning
Record Indicator	This is the 200 reading
NMI	National Metering Identifier for the connection point (premise for which the data has been requested).
NMI Configuration	A concatenation of every NMI Suffix applicable to the meter – it shows how your meter is configured for consumption and generation.
RegisterID	A register is the feature of a meter that records the energy passing through your meter – consumption and/or generation. The RegisterID is used to identify the data source (register) that is obtained from the meter. A single meter may provide multiple data sources.
NMISuffix	A code to identify a particular data stream associated with NMI
MDMDataStreamIdentifier	A code that identifies the data stream as delivered to AEMO for settlement purpose – this field may be blank
MeterSerialNumber	The meter manufacturer assigned serial number of the meter
UOM	Unit of measure – kilowatt hour abbreviation - kWh
IntervalLength	<ul style="list-style-type: none"> ➤ 30 minutes for a retail customer ➤ 12 minutes for an industrial / commercial installation
NextScheduleReadDate	<ul style="list-style-type: none"> ➤ If your meter is remotely read, this field will be blank ➤ If your meter is manually read, this field will show the planned date that your meter is scheduled to be read



How to Read the Interval Data Record (300 Record)

Example record: 300,20030501,50.1, . . . ,21.5,V,,20030101153445,20030102023012

Record Indicator	Interval Date	IntervalValue1 IntervalValueN	Quality Method	Reason Code	Reason Description	Update Date Time	MSATSLoad DateTime
300	20030501	50.1,,,21.5	A or S55 or V	0-99 or Blank	Substituted or Blank	20030101153445	20030102023012 or Blank

Field Name	Value / Meaning
Record Indicator	This is the 300 record
Interval Date	The date of the meter reading
IntervalValue1 or N	There will be 48 or 96 values (consumption or generation meter readings) in this repeating field dependant on the interval meter type
Quality Method	<p>A code that indicates of the quality of the meter reading(s):</p> <ul style="list-style-type: none"> ➤ A – indicates that all meter readings in the 300 record are actual ➤ S55 – indicates that all meter readings in the 300 record are substituted ➤ V – indicates when both actual and substituted meter readings appear in a single day ➤ For other values, refer to Appendix C and D of AEMO’s Meter Data File Format NEM12 & NEM13 document for details
Reason Code	<p>A code that indicates why an actual read was not provided for a given interval(s):</p> <ul style="list-style-type: none"> ➤ Blank – if the Quality Method is A or V ➤ 0-99 – refer to Appendix E of AEMO’s Meter Data File Format NEM12 & NEM13 document for details
Reason Description	<ul style="list-style-type: none"> ➤ Blank – if the ReasonCode is Blank ➤ If the ReasonCode is not blank or 0 the ReasonDescription may be populated or may be blank - refer to Appendix E of AEMO’s Meter Data File Format NEM12 & NEM13 document for details
Update Date Time	The Meter Data Provider’s version date/time that the metering data was created or changed
MSATSLoad DateTime	This can be blank. If it’s not blank, the value represents the date/time stamp the MSATS system returns (to the MDP) recording when metering data was loaded into MSATS



How to Read the interval Event Record (400 Record)

Example record:

400,1,26,A,,
400,27,31,S55,0,Substituted
400,31,48,A,,

Record Indicator	Start Interval	End Interval	Quality Method	Reason Code	Reason Description
400	1	26	A		
400	27	31	S55	0	Substituted
400	31	48	A		

Field Name	Value / Meaning
Record Indicator	This is the 400 record.
Start Interval	The first interval number that the Reason Code / Quality Method combination applies to.
End Interval	The last interval number that the Reason Code / Quality Method combination applies to.
Quality Method	A code that indicates of the quality of the meter reading(s): <ul style="list-style-type: none">➤ A – Indicates that the meter readings between the StartInterval and EndInterval are actual➤ S55 (substitution type 55 – Agreed Substitution Method) – Indicates that the meter readings between the StartInterval and EndInterval are substituted
Reason Code	A code that indicates why an actual read was not provided for a given interval(s): <ul style="list-style-type: none">➤ Blank – if the Quality Method is A➤ 0-99 – refer to Appendix E of AEMO's Meter Data File Format NEM12 & NEM13 document for details
Reason Description	<ul style="list-style-type: none">➤ Blank – if the ReasonCode is blank➤ If the ReasonCode is not blank or 0 the ReasonDescription may be populated or may be blank - refer to Appendix E of AEMO's Meter Data File Format NEM12 & NEM13 document for details



Accumulated Metering Data Summary Report

The **Accumulated Metering Data Summary Report** is a PDF document and can be opened and viewed using (for example) Adobe Acrobat Reader.

The **Accumulated Metering Data Summary Report** includes:

- A table with total volume of energy for each energy flow type for the specified time period between two meter reads.
- Graphical representation of energy volumes for each energy flow type for the specified time period.
- Each meter reading date for each energy flow type for the specified period of time.
- From Date and To Date for the specified time period. This range is the start and end of the meter reading period.
- An indication if estimated data is included in any of the time periods.

Other Information Sources

United Energy has a customer self-service web site called Energy Easy – <https://energyeasy.ue.com.au>.

Energy Easy enables you to view your energy usage by day, week, month, season and year and includes a Reports Menu where you can request your detail and/or summary metering data reports to be emailed to you. The data provided is the newest available.

Energy Easy provides:

- **Electricity View:** See how much electricity you are using and when you are using it.
- **Your Target:** Set yourself an electricity saving target and track your progress.
- **Your Devices:** Install an in-home display to get real time information about your electricity usage.
- **Compare:** Enter tariffs from different electricity retailers to find the best plan for you.
- **Outages:** Register to receive notifications when you have a power outage.

The Energy Easy Reports Menu also includes a report called Victorian Energy Compare Data. This is the original report that was available via the download button on the Electricity View page that generates a file of up to two years of metering data (in a CSV file). This file can be loaded into the VEC comparison tool that then uses your actual electricity metering data to search for energy products.

The VEC comparison tool, created by the Victorian Government is called Victorian Energy Compare - <https://compare.switchon.vic.gov.au>.



Table of Terms

Term	Description	Applicable Meter Type(s)
AEMO	Australian Energy Market Operator http://www.aemo.com.au	All
Average Daily Load Profile	A load profile across a day based on the average of interval metering data for the period of 12 months metering data immediately preceding the date of the metering data request.	Interval
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.	All
CSV	Comma Separated Values.	All
Data Quality	Indicates if the consumption data is an actual read for estimated data.	Interval
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.	All
From Date	Start of meter reading period	All
Generation	<p>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.</p> <p>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.</p>	All
General Supply	General light and power electricity usage (does not include controlled load usage).	All
Interval Date	Date of the Interval Data	Interval
Interval Length	Time in minutes of each energy interval period: 1, 5, 10, 15, or 30.	Interval
Interval Metering Data	The total amount of energy or other measured value for the interval inclusive of any multiplier or scaling factor.	Interval
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.	Interval
MDP	Meter Data Provider. An energy market role responsible for providing metering data to various market participants.	All
Meter Data Stream ID	Metering data stream identifier Identifies the data stream as delivered to AEMO for settlement purposes	Interval



Term	Description	Applicable Meter Type(s)
Meter Serial Number	The meter serial number uniquely identifies a meter for a given NMI.	All
MSATS	AEMO's Market Settlement and Transfer System.	All
NMI	The National Metering Identifier is a unique identifier for a metering installation. Your NMI should be located on your electricity bill provided by your Retailer.	All
NMI Configuration	String of all NM Suffixes applicable to the NMI that represents the actual configuration or data stream at the site. For E.g.: In the example above E1 and E2 are the NMI Suffixes. E1 NMI Suffix represents General Supply and E2 NMI Suffix is associated with controlled load.	All
NMI Suffix	The data stream suffix provides identification at the measurement element level for all data streams comprising the connection point identified by the NMI. For E.g. "E1", "B1", "Q1", "K1".	All
PDF	Portable Document Format.	All
Quality Method	Summary of the data quality flags that indicate actual and substitution/estimation data for all Interval data contained in the record. The data quality flags can be: <ul style="list-style-type: none"> ➤ A - Actual Data. ➤ S55 - Substituted Data. ➤ V - Variable (Actual and Substituted) data exists for the day. ➤ For other values, refer to AEMO's Meter Data File Format NEM12 & NEM13 document (Appendixes C and D) for details 	Interval
Reason Code	Summary of the reasons for substitute/estimate or information for all Interval data contained in the record.	Interval
Reason Description	Description of Reason Code.	Interval
Record Indicators	The blocks of records on each line: <ul style="list-style-type: none"> ➤ 200 block: NMI data details record indicator. ➤ 300 block: Interval data record indicator. ➤ 400 block: Interval event record indicator 	Interval
Register ID	The Register Id is used to identify a data source that is obtained from the meter. A single meter may provide multiple data sources. For E.g. "1", "2", "E1", "B1".	All
To Date	End of meter reading period.	All
Start and End Interval Number for Reason Code / Quality Method	The first and the last interval number that the Reason Code/Quality Method combination applies to.	Interval
UOM	Unit of Measure for energy flow type and Maximum Demand	All
Updated Date/Time	The latest date/time that any updated Interval meter data or Quality Method for the Interval Date.	Interval
Usage	Consumption of electrical energy.	All
VEC	Victorian Energy Compare - https://compare.switchon.vic.gov.au	Interval