

Data Standards Body

Technical Working Group

Decision 194 – Candidate NMI Standing Data End Points

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Decision Approved By Chairman: 5th October 2021

Context

AEMO has been designated as a secondary data holder for the energy sector under the Consumer Data Rights (CDR) regime. One of the key data sets within the designation is the National Metering Identifier (NMI) standing data which maintains the standing data information for each NMI as part of its role of the energy market operator.

The candidate data payloads and URI endpoints are being determined under Decision Proposal 194.

The decision describes the endpoints for NMI standing data that the retailers will expose to ADRs along with the detailed payloads.

Decision To Be Made

Define the form of the API end points and payloads for NMI standing data that retailers will expose to ADRs so that they can fulfil consumer data requests for NMI standing data.

Feedback Provided

The original proposal and the associated feedback can be found at:

<https://github.com/ConsumerDataStandardsAustralia/standards/issues/194>

This proposal sought to finalise the NMI Standing Data payload and URIs. The data set includes information about the meter type, location and network tariffs. It was prepared with aid from AEMO and feedback collected from previous public consultations.

The following is a summary of the feedback provided in response to this consultation:

- Requests for clarification and amendments of various attributes within the payload. This feedback was responded to in the consultation and applicable amendments have been accommodated as much as possible.
- Requests to update the standing data payload to incorporate changes arising from in-progress various energy industry specific consultations (for e.g. Market Settlements and Transfer Solutions (MSATS) Standing Data Review (MSDR)). The changes were assessed with AEMOs assistance and the stable ones have been accommodated. Any further changes

arising prior to energy CDR go-live can be incorporated at a later stage as part of maintenance iteration process.

- Request for scope clarifications. They were shared with the rules team and their feedback was provided back within the consultation.
- Specific feedback on complementing the technical description of the data with real-world examples for broader understanding was provided. Feedback was provided highlighting the CX teams work to develop a data language for energy sector which would provide additional description that elaborates on the data. Any further elaboration would be at the discretion of the retailer.
- Specific feedback on incorporating historical view of NMI standing data was received. Clarification was provided on how this could still be achieved with the proposed payload structure combined with energy usage data payload.

Decision For Approval

This decision will be incorporated in the standards but will not be binding.

Version 1 of retailers exposed endpoints for accessing NMI standing data payload to ADRs will be defined as per the following sections

Service Point (NMI) End Points Summary

A summary of the metering site end points:

- GET /energy/electricity/servicepoints
- GET /energy/electricity/servicepoints/{servicePointId}

Service Point List Data

High Level Information

Title	Obtain a list of service points owned by the customer that has authorised the current session
HTTP Method	GET
URI	/energy/electricity/servicepoints
Security Scope	energy:electricity.servicepoints.basic:read
Pagination	Supported
Path Parameters	None
Query Parameters	page Page of results to request (standard pagination) page-size Page size to request. Default is 25 (standard pagination)

Request Payload

Not applicable

Response Payloads

HTTP Response Code: 200 OK

Field	Type	Mandatory	Description
data	Object	Mandatory	
{			
servicePointId	String	Mandatory	Tokenised ID of the service point to be used for referring to the service point in the CDR API suite. To be created in accordance with CDR ID permanence requirements
nationalMeteringId	String	Mandatory	The independent ID of the service point, known in the industry as the NMI

Field	Type	Mandatory	Description
servicePointClassification	Enum	Mandatory	<p>The classification of the service point as defined in MSATS procedures. Must be one of:</p> <ul style="list-style-type: none"> EXTERNAL_PROFILE GENERATOR LARGE SMALL WHOLESALE NON_CONTEST_UNMETERED_LOAD NON_REGISTERED_EMBEDDED_GENERATOR DISTRIBUTION_WHOLESALE (Distribution Connection point where energy is purchased from Spot Market)
servicePointStatus	Enum	Mandatory	<p>Code used to indicate the status of the service point. Must be one of:</p> <ul style="list-style-type: none"> ACTIVE (An active, energised, service point) DE_ENERGISED (The service point exists but is de-energised) EXTINCT (The service point has been permanently decommissioned) GREENFIELD (Applies to a service point that has never been energised) OFF_MARKET (Applies when the service point is no longer settled in the NEM)
jurisdictionCode	Enum	Mandatory	<p>Jurisdiction code to which the service point belongs. This code defines the jurisdictional rules which apply to the service point. Must be one of:</p> <ul style="list-style-type: none"> ALL (All Jurisdictions) ACT (Australian Capital Territory) NEM (National Electricity Market) NSW (New South Wales) QLD (Queensland) SA (South Australia) TAS (Tasmania) VIC (Victoria)

Field	Type	Mandatory	Description
isGenerator	Boolean	Optional	This flag determines whether the energy at this connection point is to be treated as consumer load or as a generating unit (this may include generator auxiliary loads). If absent defaults to <i>false</i> Note: Only applicable for scheduled or semi-scheduled generators, does not indicate on site generation by consumer
validFromDate	DateString	Mandatory	The start date from which this service point first became valid
lastUpdateDateTime	DateTimeString	Mandatory	The date and time that the information for this service point was modified
consumerProfile	Object	Optional	
{			
classification	Enum	Optional	A code that defines the consumer class as defined in the National Energy Retail Regulations, or in overriding Jurisdictional instruments. Must be one of: <ul style="list-style-type: none"> BUSINESS RESIDENTIAL
threshold	Enum	Optional	A code that defines the consumption threshold as defined in the National Energy Retail Regulations, or in overriding Jurisdictional instruments. Must be one of: <ul style="list-style-type: none"> LOW (Consumption is less than the 'lower consumption threshold' as defined in the National Energy Retail Regulations) MEDIUM (Consumption is equal to or greater than the 'lower consumption threshold', but less than the 'upper consumption threshold', as defined in the National Energy Retail Regulations) HIGH (Consumption is equal to or greater than the 'upper consumption threshold' as defined in the National Energy Retail Regulations)
}			
}			
links	Object	Mandatory	
{			
self	URIStrng	Mandatory	Fully qualified link to this API call

Field	Type	Mandatory	Description
first	URI	Conditional	URI to the first page of this set. Mandatory if this response is not the first page
prev	URI	Conditional	URI to the previous page of this set. Mandatory if this response is not the first page
next	URI	Conditional	URI to the next page of this set. Mandatory if this response is not the last page
last	URI	Conditional	URI to the last page of this set. Mandatory if this response is not the last page
}			
meta	Object	Mandatory	
{			
totalRecords	PositiveInteger	Mandatory	The total number of records in the full set
totalPages	PositiveInteger	Mandatory	The total number of pages in the full set
}			

Service Point Detailed Data

High Level Information

Title	Obtain detailed standing information for a specific service point that is owned by the customer that has authorised the current session
HTTP Method	GET
URI	/energy/electricity/servicepoints/{servicePointId}
Security Scope	energy:electricity.servicepoints.detail:read
Pagination	Not Supported
Path Parameters	servicePointId ID of the specific service point requested. This is a tokenised ID previous obtained from the Service Point List Data end point. Note that it is not a nationalMeteringId.
Query Parameters	None

Request Payload

Not applicable

Response Payloads

HTTP Response Code: 200 OK

Field	Type	Mandatory	Description
data	Object	Mandatory	
{			
servicePointId	String	Mandatory	Tokenised ID of the service point to be used for referring to the service point in the CDR API suite. To be created in accordance with CDR ID permanence requirements
nationalMeteringId	String	Mandatory	The independent ID of the service point, known in the industry as the NMI

Field	Type	Mandatory	Description
servicePointClassification	Enum	Mandatory	<p>The classification of the service point as defined in MSATS procedures. Must be one of:</p> <ul style="list-style-type: none"> EXTERNAL_PROFILE GENERATOR LARGE SMALL WHOLESALE NON_CONTEST_UNMETERED_LOAD NON_REGISTERED_EMBEDDED_GENERATOR DISTRIBUTION_WHOLESALE (Distribution Connection point where energy is purchased from Spot Market)
servicePointStatus	Enum	Mandatory	<p>Code used to indicate the status of the service point. Must be one of:</p> <ul style="list-style-type: none"> ACTIVE (An active, energised, service point) DE_ENERGISED (The service point exists but is de-energised) EXTINCT (The service point has been permanently decommissioned) GREENFIELD (Applies to a service point that has never been energised) OFF_MARKET (Applies when the service point is no longer settled in the NEM)
jurisdictionCode	Enum	Mandatory	<p>Jurisdiction code to which the service point belongs. This code defines the jurisdictional rules which apply to the service point. Must be one of:</p> <ul style="list-style-type: none"> ALL (All Jurisdictions) ACT (Australian Capital Territory) NEM (National Electricity Market) NSW (New South Wales) QLD (Queensland) SA (South Australia) TAS (Tasmania) VIC (Victoria)

Field	Type	Mandatory	Description
isGenerator	Boolean	Optional	This flag determines whether the energy at this connection point is to be treated as consumer load or as a generating unit (this may include generator auxiliary loads). If absent defaults to <i>false</i> Note: Only applicable for scheduled or semi-scheduled generators.
validFromDate	DateString	Mandatory	The start date from which this service point first became valid
lastUpdateDateTime	DateTimeString	Mandatory	The date and time that the information for this service point was modified
consumerProfile	Object	Optional	
{			
classification	Enum	Optional	A code that defines the consumer class as defined in the National Energy Retail Regulations, or in overriding Jurisdictional instruments. Must be one of: <ul style="list-style-type: none"> • BUSINESS • RESIDENTIAL
threshold	Enum	Optional	A code that defines the consumption threshold as defined in the National Energy Retail Regulations, or in overriding Jurisdictional instruments. Must be one of: <ul style="list-style-type: none"> • LOW (Consumption is less than the 'lower consumption threshold' as defined in the National Energy Retail Regulations) • MEDIUM (Consumption is equal to or greater than the 'lower consumption threshold', but less than the 'upper consumption threshold', as defined in the National Energy Retail Regulations) • HIGH (Consumption is equal to or greater than the 'upper consumption threshold' as defined in the National Energy Retail Regulations)
}			
distributionLossFactor	Object	Mandatory	
{			
code	String	Mandatory	A code used to identify data loss factor for the service point values. Refer to AEMO distribution loss factor documents for each financial year to interpret
description	String	Mandatory	Description of the data loss factor code and value

Field	Type	Mandatory	Description
lossValue	Number	Mandatory	The value associated with the loss factor code
}			
relatedParticipants	Array of Objects	Mandatory	
{{			
party	String	Mandatory	The name of the party/organisation related to this service point.
role	Enum	Mandatory	The role performed by this participant in relation to the service point. Must be one of: <ul style="list-style-type: none"> • FRMP (Financially Responsible Market Participant) • LNSP (Local Network Service Provider or Embedded Network Manager for child connection points) • DRSP (wholesale Demand Response and/or market ancillary Service Provider and note that where it is not relevant for a NMI it will not be included)
}}			
location	Object	Mandatory	
{			
addressUType		Mandatory	The type of address object present. Must be one of: <ul style="list-style-type: none"> • simple • paf
simple	Object	Conditional	The address of the service point. Mandatory if addressUType is set to <i>simple</i> . The structure of this object is aligned to the existing CommonSimpleAddress structure
paf	Object	Conditional	The address of the service point. Mandatory if addressUType is set to <i>paf</i> . The structure of this object is aligned to the existing CommonPAFAddress structure
}			
meters	Array of Objects	Mandatory	
{{			

Field	Type	Mandatory	Description
meterId	String	Mandatory	The meter ID uniquely identifies a meter for a given service point. Is unique in the context of the service point. Is not globally unique.
specifications	Object	Mandatory	Technical characteristics of the meter
{			
status	Enum	Mandatory	A code to denote the status of the meter. Must be one of: <ul style="list-style-type: none"> CURRENT (Applies when a meter is current and not disconnected) DISCONNECTED (Applies when a meter is present but has been remotely disconnected)
installationType	Enum	Mandatory	The metering Installation type code indicates whether the metering installation has to be manually read. Must be one of: <ul style="list-style-type: none"> BASIC (Accumulation Meter – Type 6) COMMS1 (Interval Meter with communications – Type 1) COMMS2 (Interval Meter with communications – Type 2) COMMS3 (Interval Meter with communications – Type 3) COMMS4 (Interval Meter with communications – Type 4) COMMS4C (CT connected metering installation that meets the minimum services specifications) COMMS4D (Whole current metering installation that meets the minimum services specifications) MRAM (Small customer metering installation – Type 4A) MRIM (Manually Read Interval Meter – Type 5) UMCP (Unmetered Supply – Type 7) VICAMI (A relevant metering installation as defined in clause 9.9C of the NER) NCONUML (Non-contestable unmeter load - Introduced as part of Global Settlement)

Field	Type	Mandatory	Description
manufacturer	String	Optional	Free text field to identify the manufacturer of the installed meter
model	String	Optional	Free text field to identify the meter manufacturer's designation for the meter model
readType	String	Optional	<p>Code to denote the method and frequency of Meter Reading.</p> <p>The value is formatted as follows:</p> <ul style="list-style-type: none"> - First Character = Remote (R) or Manual (M); - Second Character = Mode: T = telephone W = wireless P = powerline I = infra-red G = galvanic V = visual - Third Character = Frequency of Scheduled Meter Readings: 1 = Twelve times per year 2 = Six times per year 3 = Four times per year D = Daily or weekly - Optional Fourth Character = to identify what interval length the meter is capable of reading. This includes five, 15 and 30 minute granularity as the following: A – 5 minute B – 15 minute C – 30 minute D – Cannot convert to 5 minute (i.e. due to metering installation de-energised) M - Manually Read Accumulation Meter <p>For example,</p> <ul style="list-style-type: none"> • MV3 = Manual, Visual, Quarterly. • MV3M = Manual, Visual, Quarterly, Manually Read Accumulation Meter • RWDC = Remote, Wireless, Daily, 30 minutes interval
nextScheduledReadDate	DateString	Optional	This date is the next scheduled meter read date (NSRD) if a manual Meter Reading is required
}			
registers		Mandatory	Usage data registers available from the meter
{{			
registerId	String	Mandatory	Unique identifier of the register within this service point. Is not globally unique.
registerSuffix	String	Mandatory	Register suffix of the meter register where the meter reads are obtained
averagedDailyLoad	NaturalNumber	Optional	<p>The energy delivered through a connection point or metering point over an extended period normalised to a "per day" basis (kWh)</p> <p>This value is calculated annually.</p>

Field	Type	Mandatory	Description
registerConsumptionType	Enum	Mandatory	Indicates the type consumption type of register. Must be one of: <ul style="list-style-type: none"> • INTERVAL • BASIC • PROFILE_DATA • ACTIVE_IMPORT • ACTIVE • REACTIVE_IMPORT • REACTIVE
networkTariffCode	String	Optional	The Network Tariff Code is a free text field containing a code supplied and published by the local network service provider
unitOfMeasure	String	Optional	The unit of measure for data held in this register
timeOfDay	Enum	Optional	Code to identify the time validity of register contents. Must be one of: <ul style="list-style-type: none"> • ALLDAY • INTERVAL • PEAK • BUSINESS • SHOULDER • EVENING • OFFPEAK • CONTROLLED • DEMAND
multiplier	Number	Optional	Multiplier required to take a register value and turn it into a value representing billable energy
controlledLoad	Boolean	Optional	Indicates whether the energy recorded by this register is created under a Controlled Load regime. ControlledLoad field will have "No" if register does not relate to a Controlled Load, "Yes" if register relates to a Controlled Load If absent the status is unknown.
consumptionType	Enum	Optional	Actual/Subtractive Indicator: <ul style="list-style-type: none"> • ACTUAL implies volume of energy actually metered between two dates • CUMULATIVE indicates a meter reading for a specific date. A second Meter Reading is required to determine the consumption between those two Meter Reading dates
}}			
}}			
}			
links	Object	Mandatory	

Field	Type	Mandatory	Description
{			
self	URIStrng	Mandatory	Fully qualified link to this API call
}			
meta	Object	Optional	
{			
}			