Data Standards Body

Technical Working Group

Decision Proposal 116 – Billing Data Payloads

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Feedback Conclusion Date: 5th November 2020

Context

This proposal describes the payloads for the Billing Data cluster included in the energy sector designation instrument. This proposal includes feedback obtained in response to the following consultation activities:

- **Decision Proposal 103 – Electricity End Points**
  This consultation proposed a series of URIs for the whole energy sector. Feedback provided in response to this consultation can be found at:
  https://github.com/ConsumerDataStandardsAustralia/standards/issues/103
- **First Energy API Workshop**
  This workshop was conducted online and the NMI Standing Data fields were discussed specifically. The outcomes of the workshop can be found at:
  https://github.com/ConsumerDataStandardsAustralia/standards/wiki/Consumer-Data-Right-%7C-Energy-API-Workshop-%7C-Online---Outcomes
- **Retailer Workshop**
  On the 21st of July a workshop specifically focused on the data clusters that energy retailers are designated to provide as a data holder was conducted. This workshop addressed the consumer experience and the technical aspects of these data clusters. This decision proposal has been heavily influenced by the outcomes of that workshop.

Decision To Be Made

Define the preliminary end point URIs and payloads for Customer Data.

Identified Options

When consulting on payloads each field potentially has multiple options. For this reason, this proposal only presents a single option for consultation with the expectation that all parts of the proposal are subject to change in response to community feedback.

This section therefore includes a series of descriptions of the underlying assumptions and rationale that have led to the specific proposal included in the recommendation section.

Designation Scope Assumption

This proposal is specifically seeking to define, at a granular level, the billing and statement information specified in section 8 (3) of the designation instrument. This section, with context, is as follows:

> *(3) Without limiting subsection (1), the information mentioned in that subsection includes billing information relating to the arrangement, which includes:*
>
> *(a) information about the following:*
>
> *(i) a bill issued under the arrangement;*
>
> *(ii) a payment or transaction made in relation to the arrangement;*
>
> *[…]*
>
> *(b) a breakdown of an amount charged under the arrangement; and*
>
> *(c) information used to calculate a bill.*

Current Recommendation

The recommended URIs and Payloads for electricity billing and statement data are presented in the following sections.

Billing End Points Summary

A summary of the account end points:

- GET /energy/accounts/balances
- POST /energy/accounts/balances
- GET /energy/accounts/{accountId}/balance
- GET /energy/accounts/invoices
- POST /energy/accounts/invoices
- GET /energy/accounts/{accountId}/invoices
- GET /energy/accounts/billing
- POST /energy/accounts/billing
- GET /energy/accounts/{accountId}/billing

Common Object Types

These structures are used multiple times in the usage payloads and are therefore documented separately.

Invoice Common Type

Field	Type	Mandatory	Description
{			
accountId	String	Mandatory	The ID of the account for which the invoice was issued
invoiceNumber	String	Mandatory	The number assigned to this invoice by the energy Retailer
issueDate	DateString	Mandatory	The date that the invoice was issued
period	Object	Mandatory	Object containing the start and end date for the period covered by the invoice
{			
startDate	DateString	Mandatory	The start date of the period covered by this invoice
endDate	DateString	Mandatory	The end date of the period covered by this invoice
}			
amountDue	AmountString	Mandatory	The total amount due for this invoice
balanceAtIssue	AmountString	Mandatory	The account balance at the time the account was issued
servicePoints	Array of Strings	Mandatory	Array of service point IDs to which this invoice applies
electricity	Object	Mandatory	Object contain charges and credits related to energy usage
{			
totalUsageCharges	AmountString	Mandatory	The aggregate total of usage charges for the period covered by the invoice
totalGenerationCredits	AmountString	Mandatory	The aggregate total of generation credits for the period covered by the invoice
totalOnceOffCharges	AmountString	Mandatory	The aggregate total of any once off charges arising from electricity usage for the period covered by the invoice
totalOnceOffDiscounts	AmountString	Mandatory	The aggregate total of any once off discounts or credits arising from electricity usage for the period covered by the invoice
}			

Field	Type	Mandatory	Description
totalAccountCharges	AmountString	Mandatory	The aggregate total of account level charges for the period covered by the invoice
totalAccountDiscounts	AmountString	Mandatory	The aggregate total of account level discounts or credits for the period covered by the invoice
isPaid	Boolean	Mandatory	Flag indicating if the invoice has been paid. True indicates that the invoice has been paid and false indicates that it has not.
}			

Billing Transaction Common Type

Field	Type	Mandatory	Description
{			
accountId	String	Mandatory	The ID of the account for which transaction applies
executionDateTime	DateTimeString	Mandatory	The date and time that the transaction occurred
transactionUType	Enum	Mandatory	Indicator of the type of transaction object present in this record. May be one of: • usage • onceOff • payment
usage	Object	Conditional	Represents a usage charge or generation credit. Mandatory if transactionUType is equal to usage
{			
servicePointId	String	Mandatory	The ID of the service point to which this transaction applies
invoiceNumber	String	Optional	The number of the invoice in which this transaction is included if it has been issued
timeOfUseType	Enum	Mandatory	The time of use type that the transaction applies to. Must be one of: • PEAK • OFF_PEAK • SHOULDER • SHOULDER1 • SHOULDER2
isEstimate	Boolean	Optional	Flag indicating if the usage is estimated or actual. True indicates estimate. False or absent indicates actual
startDate	DateTimeString	Mandatory	Date and time when the usage period starts
endDate	DateTimeString	Mandatory	Date and time when the usage period ends

Field	Type	Mandatory	Description
usage	Number	Mandatory	The usage for the period in kWh. A negative value indicates power generated
amount			The amount charged or credited for this transaction prior to any adjustments being applied. A negative value indicates a credit
adjustments	Array of Objects	Optional	Optional array of adjustments arising for this transaction
[{			
amount	AmountString	Mandatory	The amount of the adjustment
description	String	Mandatory	A free text description of the adjustment
}]			
}			
onceOff	Object	Conditional	Represents a once off charge or credit. Mandatory if transactionUType is equal to onceOff
{			
servicePointId	String	Mandatory	The ID of the service point to which this transaction applies
invoiceNumber	String	Optional	The number of the invoice in which this transaction is included if it has been issued
amount	AmountString	Mandatory	The amount of the charge or credit. A positive value indicates a charge and a negative value indicates a credit
description	String	Mandatory	A free text description of the item
}			
payment	Object	Conditional	Represents a payment to the account. Mandatory if transactionUType is equal to payment
{			
amount	AmountString	Mandatory	The amount paid
method	enum	Mandatory	The method of payment. Must be one of: • DIRECT_DEBIT • CARD • TRANSFER • BPAY • CASH • CHEQUE • OTHER
}			

Field	Type	Mandatory	Description
}			

Bulk Account Balance Data

High Level Information

Title	Obtain the current balance for all accounts
HTTP Method	GET
URI	/energy/accounts/balances
Security Scope	energy:billing:read
Pagination	Not Supported
Path Parameters	None
Query Parameters	None

Request Payload

Not applicable

Response Payloads

HTTP Response Code: 200 OK

Field	Type	Mandatory	Description
data	Object	Mandatory	
{			
balances	Array	Mandatory	Array of account balances
[{			
accountId	String	Mandatory	The ID of the account
balance	AmountString	Mandatory	The current balance of the account. A positive value indicates that amount is owing to be paid. A negative value indicates that the account is in credit
}]			
}			
links	Object	Mandatory	
{			
self	URIString	Mandatory	Fully qualified link to this API call
}			
meta	Object	Mandatory	

Field	Type	Mandatory	Description
{			
}			

Balance Data For Specific Accounts

High Level Information

Title	Obtain the current balance for a specified set of accounts
HTTP Method	POST
URI	/energy/accounts/balances
Security Scope	energy:billing:read
Pagination	Not Supported
Path Parameters	None
Query Parameters	None

Request Payload

Field	Type	Mandatory	Description
data	Object	Mandatory	
{			
accountIds	Array[String]	Mandatory	Array of specific accountIds to obtain balances for.
}			
meta	Object	Mandatory	
{			
}			

Response Payloads

HTTP Response Code: 200 OK

Field	Type	Mandatory	Description
data	Object	Mandatory	
{			
balances	Array	Mandatory	Array of account balances
[{			
accountId	String	Mandatory	The ID of the account

Field	Type	Mandatory	Description
balance	AmountString	Mandatory	The current balance of the account. A positive value indicates that amount is owing to be paid. A negative value indicates that the account is in credit
}]			
}			
links	Object	Mandatory	
{			
self	URIString	Mandatory	Fully qualified link to this API call
}			
meta	Object	Mandatory	
{			
}			

HTTP Response Code: 422 Unprocessable Entity

If one of the specified accountIds is invalid or inaccessible then a 422 response should be returned with an error payload. The structure of this error payload will be aligned to the equivalent error for the bank account end points.

This is currently under review as part of another consultation.

Balance Data For A Specific Account

High Level Information

Title	Obtain the current balance for a specific account
HTTP Method	GET
URI	/energy/accounts/{accountId}/balance
Security Scope	energy:billing:read
Pagination	Not Supported
Path Parameters	**accountId** ID of the account for which a balance is requested. This is a tokenised ID previously obtained from another account end point.
Query Parameters	None

Request Payload

Not applicable

Response Payloads

HTTP Response Code: 200 OK

Field	Type	Mandatory	Description
data	Object	Mandatory	
{			
balance	AmountString	Mandatory	The current balance of the account. A positive value indicates that amount is owing to be paid. A negative value indicates that the account is in credit
}			
links	Object	Mandatory	
{			
self	URIString	Mandatory	Fully qualified link to this API call
}			
meta	Object	Mandatory	
{			
}			

Bulk Invoice Data

High Level Information

Title	Obtain the invoices for all accounts
HTTP Method	GET
URI	/energy/accounts/invoices
Security Scope	energy:billing:read
Pagination	Supported
Path Parameters	None
Query Parameters	**oldest-date** Constrain the request to invoices with publish date at or after this date. If absent defaults to newest-date minus 24 months. Format is aligned to DateString common type **newest-date** Constrain the request to invoices with publish date at or before this date. If absent defaults to current date. Format is aligned to DateString common type **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	
{			
invoices	Array of Invoice Common Type	Mandatory	Array of invoices sorted by date in descending order
}			
links	Object	Mandatory	
{			

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

Invoices For Specific Accounts

High Level Information

Title	Obtain invoices for a specified set of accounts
HTTP Method	POST
URI	/energy/accounts/invoices
Security Scope	energy:billing:read
Pagination	Supported
Path Parameters	None
Query Parameters	**oldest-date** Constrain the request to invoices with publish date at or after this date. If absent defaults to newest-date minus 24 months. Format is aligned to DateString common type **newest-date** Constrain the request to invoices with publish date at or before this date. If absent defaults to current date. Format is aligned to DateString common type **page** Page of results to request (standard pagination) **page-size** Page size to request. Default is 25 (standard pagination)

Request Payload

Field	Type	Mandatory	Description
data	Object	Mandatory	
{			
accountIds	Array[String]	Mandatory	Array of specific accountIds to obtain invoices for.
}			
meta	Object	Mandatory	
{			
}			

Response Payloads

HTTP Response Code: 200 OK

Field	Type	Mandatory	Description

Field	Type	Mandatory	Description
data	Object	Mandatory	
{			
invoices	Array of Invoice Common Type	Mandatory	Array of invoices sorted by date in descending order
}			
links	Object	Mandatory	
{			
self	URIString	Mandatory	Fully qualified link to this API call
}			
meta	Object	Mandatory	
{			
}			

HTTP Response Code: 422 Unprocessable Entity

If one of the specified accountIds is invalid or inaccessible then a 422 response should be returned with an error payload. The structure of this error payload will be aligned to the equivalent error for the bank account end points.

This is currently under review as part of another consultation.

Invoices For A Specific Account

High Level Information

Title	Obtain the invoices for a specific account
HTTP Method	GET
URI	/energy/accounts/{accountId}/invoices
Security Scope	energy:billing:read
Pagination	Supported
Path Parameters	**accountId** ID of the account for which transactions are requested. This is a tokenised ID previously obtained from another account end point.
Query Parameters	**oldest-date** Constrain the request to invoices with publish date at or after this date. If absent defaults to newest-date minus 24 months. Format is aligned to DateString common type **newest-date** Constrain the request to invoices with publish date at or before this date. If absent defaults to current date. Format is aligned to DateString common type **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	
{			
invoices	Array of Invoice Common Type	Mandatory	Array of invoices sorted by date in descending order
}			
links	Object	Mandatory	

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

Bulk Billing Transaction Data

High Level Information

Title	Obtain billing transactions for all accounts
HTTP Method	GET
URI	/energy/accounts/billing
Security Scope	energy:billing:read
Pagination	Supported
Path Parameters	None
Query Parameters	**oldest-time** Constrain the request to transactions with date and time at or after this date and time. If absent defaults to newest-time minus 12 months. Format is aligned to DateTimeString common type **newest-time** Constrain the request to transactions with date and time at or after this date and time. If absent defaults to current date and time. Format is aligned to DateTimeString common type **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	
{			
transactions	Array of Billing Transaction Common Type	Mandatory	Array of transactions sorted by date and time in descending order
}			
links	Object	Mandatory	
{			

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

Invoices For Specific Accounts

High Level Information

Title	Obtain invoices for a specified set of accounts
HTTP Method	POST
URI	/energy/accounts/invoices
Security Scope	energy:billing:read
Pagination	Supported
Path Parameters	None
Query Parameters	**oldest-time** Constrain the request to transactions with date and time at or after this date and time. If absent defaults to newest-time minus 12 months. Format is aligned to DateTimeString common type **newest-time** Constrain the request to transactions with date and time at or after this date and time. If absent defaults to current date and time. Format is aligned to DateTimeString common type **page** Page of results to request (standard pagination) **page-size** Page size to request. Default is 25 (standard pagination)

Request Payload

Field	Type	Mandatory	Description
data	Object	Mandatory	
{			
accountIds	Array[String]	Mandatory	Array of specific accountIds to obtain invoices for.
}			
meta	Object	Mandatory	
{			
}			

Response Payloads

HTTP Response Code: 200 OK

Field	Type	Mandatory	Description

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

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HTTP Method	GET
URI	/energy/accounts/{accountId}/invoices
Security Scope	energy:billing:read
Pagination	Supported
Path Parameters	**accountId** ID of the account for which invoices are requested. This is a tokenised ID previously obtained from another account end point.
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Request Payload

Not applicable

Response Payloads

HTTP Response Code: 200 OK

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{			
transactions	Array of Billing Transaction Common Type	Mandatory	Array of transactions sorted by date and time in descending order
}			
links	Object	Mandatory	

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

Implementation Considerations

A full binding standard applicable to the energy designation has not yet been defined and there is no existing implementation that could be impacted by this proposal. As a result there are no implementation or transition considerations to explore.