

Data Standards Body

Technical Working Group

Decision Proposal 198 – Candidate Billing & Invoice End Points

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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 116 - Billing Data Payloads**
This consultation proposed a series of URIs for the Energy Billing data payloads. Feedback provided in response to this consultation can be found at:
<https://github.com/ConsumerDataStandardsAustralia/standards/issues/116>
- **Decision Proposal 149 - Energy Draft Feedback Cycle 1**
This consultation thread raised and allowed for holistic feedback to be provided on the draft energy standards as a whole. Feedback provided in response to this consultation can be found at:
<https://github.com/ConsumerDataStandardsAustralia/standards/issues/149>
- **Decision Proposal 173 - Energy Draft Feedback Cycle 2**
This consultation thread raised and allowed for second round of holistic feedback to be provided on the draft energy standards as a whole. Feedback provided in response to this consultation can be found at:
<https://github.com/ConsumerDataStandardsAustralia/standards/issues/173>
- **Decision Proposal 180 - Energy Draft Feedback Cycle 3**
This consultation thread raised and allowed for third round of holistic feedback to be provided on the draft energy standards as a whole. Feedback provided in response to this consultation can be found at:
<https://github.com/ConsumerDataStandardsAustralia/standards/issues/180>

Decision To Be Made

Define the candidate end point URIs and payloads for Billing 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.

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

Summary of changes

Endpoints	Field/Object	Change Type	Comments
Invoice Common Type	issueDate	Modified	Updated description
	dueDate	Added	
	amountDue	Modified	Changed attribute to invoiceAmount and made optional
	payOnTimeDiscount	Added	New object to capture on time payment discount amount and date
	balanceAtIssue	Modified	Updated description to clarify the invoice amount includes current bill amount and adjustments
	gas	Added	New object to capture gas component of invoice
	isPaid	Removed	
	paymentStatus	Added	
	totalOtherChrges	Added	New array of objects to capture charges related to C&I customer invoice
Billing Transaction Common Type	servicePointId	Modified	Made optional
	timeOfUseType	Modified	Added following new ENUM value: <ul style="list-style-type: none"> • OFF_PEAK_DC
	amount	Modified	Added attribute type and Mandatory status

Endpoints	Field/Object	Change Type	Comments
	otherCharge	Added	New object to capture charges related to C&I customer billing transactions

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 actually issued (as opposed to generated or calculated)
dueDate	DateString	Optional	The date that the invoice is due to be paid
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
}			
invoiceAmount	AmountString	Optional	The net amount due for this invoice regardless of previous balance
payOnTimeDiscount	Object	Optional	A discount for on time payment
{			
amount	AmountString	Mandatory	The amount that will be discounted if the invoice is paid by the date specified
date	DateString	Mandatory	The date by which the invoice must be paid to receive the pay on time discount
}			

Field	Type	Mandatory	Description
balanceAtIssue	AmountString	Mandatory	The account balance at the time the invoice was issued, including the current bill amount and adjustments on the account
servicePoints	Array of Strings	Mandatory	Array of service point IDs to which this invoice applies
gas	Object	Mandatory	Object contain charges and credits related to gas usage
{			
totalUsageCharges	AmountString	Mandatory	The aggregate total of usage charges for the period covered by the invoice
totalOnceOffCharges	AmountString	Mandatory	The aggregate total of any once off charges arising from gas usage for the period covered by the invoice
totalOnceOffDiscounts	AmountString	Mandatory	The aggregate total of any once off discounts or credits arising from gas usage for the period covered by the invoice
}			
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
totalOtherChrges	Array of Objects	Optional	Optional array of charges that may be part of the invoice (for e.g. environmental charges for C&I consumers)
{{			
totalAmount	AmountString	Mandatory	The aggregate total of charges other than usage and once off charges
description	String	Mandatory	A free text description of the type of charge
}}			

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
paymentStatus	Enum	Mandatory	Indicator of the payment status for the invoice. May be one of: <ul style="list-style-type: none"> PAID PARTIALLY_PAID NOT_PAID
}			

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: <ul style="list-style-type: none"> usage onceOff payment otherCharge
usage	Object	Conditional	Represents a usage charge or generation credit. Mandatory if transactionUType is equal to usage
{			
servicePointId	String	Optional	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: <ul style="list-style-type: none"> PEAK OFF_PEAK OFF_PEAK_DC SHOULDER SHOULDER1 SHOULDER2

Field	Type	Mandatory	Description
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
usage	Number	Mandatory	The usage for the period in kWh. A negative value indicates power generated
amount	AmountString	Mandatory	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	Optional	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
}			
otherCharge	Object	Conditional	Represents charge other than usage and once off. Mandatory if transactionUType is equal to otherCharge
{			
servicePointId	String	Optional	The ID of the service point to which this transaction applies

Field	Type	Mandatory	Description
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
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: <ul style="list-style-type: none"> • DIRECT_DEBIT • CARD • TRANSFER • BPAY • CASH • CHEQUE • OTHER
}			
}			

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	URIStrng	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	URISString	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	URIStrng	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	<p>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</p> <p>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</p> <p>page Page of results to request (standard pagination)</p> <p>page-size Page size to request. Default is 25 (standard pagination)</p>

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	URIStrng	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	<p>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</p> <p>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</p> <p>page Page of results to request (standard pagination)</p> <p>page-size Page size to request. Default is 25 (standard pagination)</p>

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
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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	URIStrng	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	URIStrng	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	<p>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</p> <p>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</p> <p>page Page of results to request (standard pagination)</p> <p>page-size Page size to request. Default is 25 (standard pagination)</p>

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	URIStrng	Mandatory	Fully qualified link to this API call
}			
meta	Object	Mandatory	
{			
}			

Billing For Specific Accounts

High Level Information

Title	Obtain billing for a specified set of accounts
HTTP Method	POST
URI	/energy/accounts/billing
Security Scope	energy:billing:read
Pagination	Supported
Path Parameters	None
Query Parameters	<p>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</p> <p>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</p> <p>page Page of results to request (standard pagination)</p> <p>page-size Page size to request. Default is 25 (standard pagination)</p>

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

Billing For A Specific Account

High Level Information

Title	Obtain the billing transactions for a specific account
HTTP Method	GET
URI	/energy/accounts/{accountId}/billing
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.
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	URIStrng	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.