

Cover Sheet

Contributor: Ampion, PBC

Contact: Phil Gurule
Head of Platform Development
phgurule@ampion.net

- Goals:**
- Provide immediate and long term utility bill savings to as many customers as possible within the state of NY.
 - Accelerate significant amounts of CDG capacity development in the state of NY.
 - Provide CDG benefits to those that are currently not receiving it in New York.
 - Establish a precedent and “platform” model for large, scalable CDG programs, including Opt-out, CDG-Only aggregations.
 - Increase grid resiliency and reduce emissions through the expansion of CDG capacity.
 - Establish comprehensive cross-utility data standards to support expansion of CDG initiatives in New York.

Use Case: New York CDG Data Support

Contributor: Ampion, PBC

Contact: Phil Gurule
Head of Platform Development
phgurule@ampion.net

Use Case Category:

DER Development and Use

Use Case Sub-Category:

Designing and implementing Community Distributed Generation (CDG) solutions

What Question(s) Does the Stakeholder Seek to Answer with This Use Case?

- Does the prospective subscriber qualify to participate in a CDG program?
- How much savings can be realized by the utility bill customer by participating in a CDG program?
- What is the annual spend of the utility bill customer with a breakdown between distribution and supply?
- What are the basic customer characteristics? (e.g. account number, rate class, load profile, engaged in third-party retail supply, average annual demand, multi-housing dwelling, consumption history, billing history)
- How is a subscribed utility customer performing? (e.g. total amount billed, consumption used, CDG credits applied in dollars and kWh, detailed bank activity, read and bill dates)

What Information Should the Use Case Produce for the Stakeholder?

- Customer and Utility Account Characteristics (Includes Consumption History and Billing History)
- Recurring Consumption and Billing Activity Coincident with Bill Cycle
- Recurring Utility Account CDG Activity Coincident with Bill Cycle

A. How Will the Stakeholder Use the Information Produced by This Use Case?

Ampion will request Account Characteristics, Consumption History and Billing History to properly determine subscriber qualification and properly assign and allocate a customer to a CDG site. Furthermore, Ampion can use this information to provide customer-specific environmental benefits and savings resulting from CDG participation. This is event-driven activity occurring numerous times throughout a given day driven from consumer inquiry and sales.

Ampion requires ongoing access to current consumption and billing values as well as CDG-specific utility account activity for established subscribers. This activity is

coincident with a given utility account's meter read and billing cycles as well as the meter read and billing cycles of the CDG sites. This data allows Ampion to 1) Review and maintain site allocations in order to maximize savings and CDG benefits for subscriber, 2) audit account-level CDG activity to ensure proper CDG program management, 3) properly bill the subscriber for CDG-related products, and 4) maintain subscriber's insight into benefits and savings CDG participation.

- B. What are the Minimum Necessary Attributes for Each Type of Information Produced?
See Appendix A.

How Should the IEDR User Interface Present the Information Produced by the Use Case?

The IEDR is encouraged to provide a modern, secure, scalable, standardized API-based interface. A standardized API-based solution enables and promotes business activity which allows CDG programs to scale and thrive. Near real-time access to the full lifecycle of utility account-level information is imperative to meet consumer demand for CDG in New York.

Historically, New York utilities have integrated with retail energy suppliers via EDI. EDI has been made available to CDG participants during the early stages of the CDG program rollout in New York. EDI has proven to be inferior and insufficient to support CDG program activity. EDI provides only a subset of information required to support CDG subscribers. Account-level subscriber activity is often provided via spreadsheets and requires a cumbersome manual process to extract valuable information to support CDG operations. The current processes available are error prone and simply not scalable.

What Type(s) of Data Does the IEDR Need to Analyze for This Use Case?

- A. What are the Minimum Necessary Data Attributes for Each Type of Data Collected and Analyzed?

See Appendix A. The preliminary list of data proposed in Appendix B of the Staff IEDR Whitepaper contains a subset of data being proposed in this use case. There is overlap in "Electric Service Point Details" and "Electric Customer Details". The current "DER"-related data items do not appear to contemplate recorded generation activity. The IEDR is encouraged to consider Ampion's proposed list as it identifies key data elements required to properly serve New York CDG consumers.

What Data Relationships Does the IEDR Need to Analyze for This Use Case?

Ampion seeks point in time access to Electric Customer Details and Electric Service Point Details inclusive of CDG-related activity.

What Data Analysis Function(s) Does the IEDR Need for This Use Case?

- A. What are the Minimum Necessary User Input Variables Needed to Enable a Useful Analysis?

There are no obvious data analysis functions sought at this time. It is Ampion's preference to receive unmanipulated data.

How Often Does the Stakeholder Expect to Employ This Use Case?

Sub-daily. CDG operations require ongoing access to consumer data to support the full lifecycle of a New York consumer.

Ampion will request Account Characteristics, Consumption History and Billing History to determine subscriber qualification and properly assign and allocate a customer to a CDG site. This is event-driven activity occurring numerous times throughout a given day driven from consumer inquiry and sales.

Ampion requires ongoing access to current consumption and billing values as well as CDG-specific utility account activity. This activity is coincident with a given utility account's meter read and billing cycles as well as the meter read and billing cycles of the CDG sites.

How Does This Use Case Benefit the Stakeholder?

Ampion is committed to CDG growth to support consumer demand in New York. The proposed use case is meant to serve as a preliminary proposal outlining data and level of access required to properly support CDG programs in New York. Ampion is actively operating in New York under far less than ideal data support conditions. The current information exchange will not scale and is an impediment to CDG growth New York. Establishing an industry-appropriate data integration solution ultimately benefits the consumer and Ampion's ability to serve them.

Why Should This Use Case Be Prioritized From the Perspective of i) the Industry and ii) the Citizens of New York State?

Consumers in New York demand access to renewable energy. In order to meet consumer demand, it is imperative that a well-established and robust data integration mechanism exists between CDG participants and New York utilities. To Ampion's knowledge, there has never been a collective group assembled to review data integration requirements to properly support CDG in New York. The state's statutory requirements are aggressive and not within sight at this point, in large part due to the challenge and uncertainty of obtaining qualified demand. Every megawatt of capacity developed in New York State represents a \$1MM to \$2MM investment in clean, safe and inexpensive local generation. Numerous studies have pointed to the significant economic development benefits of these portfolios. Scale accelerates development.

Appendix A

Recurring Consumption and Billing Activity

Frequency: On Demand (sub-daily for prospects); Coincident with Bill Cycle for established subscribers (approx. once per month)

Field	Definition	Unit or Data Type
Utility	Utility Name	Alphanumeric
Utility Account Number	Utility Name	Numeric
Parent Utility Account Number	Used when a Utility Customer has multiple utility accounts.	Numeric
Name on the Bill	Utility Customer Name	Alphanumeric
Service Address	Utility Account Service Address	Alphanumeric
Rate Class	Utility Assigned Rate Class	Alphanumeric
Read Cycle	Read cycle identifier for given utility account	Alphanumeric
Dual Bill	Used when account is on retail third party supply and third party bills separately for supply charges	Boolean
Has Third Party Retail Supplier	Indicates if utility account is signed up with third party retail supplier	Boolean
Meter Number(s)	Meter numbers associated with a given utility account.	Alphanumeric
Master Meter/Multi-Dwelling Housing	Indicates if utility account is a multi-dwelling unit	Boolean
Load Zone	NYISO load zone identifier	Alphanumeric
Onsite Cogeneration (Y/N)	Indicates if utility account has onsite cogeneration	Boolean
Onsite Net-Metering Credits (kWh)	Net Metering Credits due to onsite cogeneration	Numeric
Onsite Cogen meter reads (kWh)	Net metering consumption due to onsite cogeneration	Numeric
Meter Start Date	Meter reading start date for given bill cycle	mm-dd-yyyy
Meter End Date	Meter reading end date for given bill cycle	mm-dd-yyyy
Billing Date	Utility bill date	mm-dd-yyyy
Consumption Measurement	Consumption amount for given meter read (kWh, kW, or kVar)	Numeric
Measurement Unit	Measurement unit for given meter read	kW kWh kVar
Time of Use	Identifies whether meter read is on peak, off peak, intermediate, or all hours.	Peak Off Peak Intermediate All Hours
Fixed Customer Charge	Utility bill fixed charges	USD
Supply Charges	Supply charges (kWh) for given meter read	USD
Supply Demand Charges	Supply charges (kW) for given meter read	USD

Delivery Charges	Delivery charges (kWh) for given meter read	USD
Delivery Demand Charges	Delivery charges (kW) for given meter read	USD
Total Charges	Total charges on a given utility bill	USD
Late Payments/Balance Forward	Charges outstanding on a given utility bill	USD

Recurring Utility Account CDG Activity

Frequency: Coincident with Bill Cycle (approx. once per month)

Field	Definition	Unit or Data Type
Site	The name of the site	Alphanumeric/symbols
Generation Period Starting	The starting date for the host production period	mm-dd-yyyy
Generation Period Ending	The ending date for the host production period	mm-dd-yyyy
Site Total Generation	The total energy generated by the site during the production period	kWh
Account Number	Utility account number associated with the subscriber account	Alphanumeric/symbols
Allocation	Allocation percentage associated with the subscriber account	%
Allocated kWh	Total energy allocated to the subscriber account	kWh
Allocated Credits	Total bill credits allocated to the subscriber account	USD
Applied kWh	Total energy applied to the subscriber utility bill	kWh
Applied Credits	Total bill credits applied to the subscriber utility bill	USD
Ending Bank Balance	Total bill credits stored in the subscriber bank after the application of new bill credits	kWh or USD
Starting Bank Balance	Total bill credits stored in the subscriber bank before the application of new bill credits	kWh or USD
Bank Contribution	Total bill credits contributed to the subscriber bank after the application of new bill credits	kWh or USD
Bank Withdrawal	Total bill credits withdrawn from the subscriber bank after the application of new bill credits	kWh or USD
Subscriber Read Starting	The starting read date on the subscriber utility bill with the applied credits	mm-dd-yyyy
Subscriber Read Ending	The ending read date on the subscriber utility bill with the applied credits	mm-dd-yyyy
Subscriber Billed Usage	Total energy usage on the subscriber utility bill with the applied credits	kWh
Subscriber Billed Amount	Total dollar amount on the subscriber utility bill prior to the credits being applied	USD
Name on Bill	The name on the subscriber utility account	Alphanumeric/symbols
Rate Class	The rate class on the subscriber utility account	Alphanumeric/symbols
Read Cycle	The read cycle on the subscriber utility account	Alphanumeric/symbols
Credit Post Date	The date when the bill credits were posted to the subscriber utility account	mm-dd-yyyy