

May 5, 2022

Via Electronic Filing

Pennsylvania Public Utility Commission
Attention: Secretary Rosemary Chiavetta
400 North Street
Harrisburg, PA 17102

Docket No. M-2021-3029018, Questions Related to the Commission's Investigation into Conservation Service Provider (CSP) and Other Third Party Access to Electric Distribution Company Customer Data

Dear Secretary Chiavetta:

My name is Sebnem Tugce Pala. I am the Director of Policy and Market Development at UtilityAPI. UtilityAPI hereby provides these comments in response to the Pennsylvania Public Utility Commission's ("Commission") February 19, 2022 Notice in the *Pennsylvania Bulletin* (the "Notice") regarding Conservation Service Provider ("CSP") and other third party access to customer data held by Electric Distribution Companies ("EDCs"). UtilityAPI submits these comments in accordance with 52 Pa. Code §1.12.

UtilityAPI is a software company based in Oakland, California. Our SaaS platform provides simple, secure, standardized, authorized access to utility data. In addition to our technical and market work, staff members participate frequently in standards groups and other forums, often taking a leadership role. UtilityAPI has also led workshops for strengthening policies and standards around the secure exchange of energy data across the U.S.

The U.S. Department of Energy Solar Technology Office has awarded UtilityAPI two competitive grants. The first was for our work with thousands of behind-the-meter distributed energy resource providers and energy managers. The second grant was to build the first (and still only) certified Green Button Connect for utilities. These awards reflect UtilityAPI's mission of serving both sides of the data access marketplace — both utilities and third party vendors.

UtilityAPI is a member of the Green Button Alliance, a non-profit that fosters the development, compliance, and adoption of the Green Button standard. Additionally, CTO and Founder Daniel Roesler is the Vice-Chair of the Green Button Alliance Board of Directors. As part of our work with the Green Button Alliance, UtilityAPI is an active participant in the OpenADE Working Group, which writes and maintains the Green Button standard.

In the comments below, our aim is to make the Commission aware of the lessons learned from other jurisdictions and help Pennsylvania get maximum value from its investment in advanced metering infrastructure ("AMI"). UtilityAPI aims to address all the relevant questions put forth in the Notice.

UtilityAPI's solution

UtilityAPI has built four Green Button Connect My Data (GBCMD) implementations for utilities across the U.S and two utilities in Canada. Our GBCMD implementations have hundreds of registered third party users.

UtilityAPI's solution is a certified implementation of the Green Button Connect standard, which uses the widely adopted OAuth 2.0 (Open Authorization) standard for obtaining customer consent and issuing access tokens.

Access tokens issued from this process are only able to be used to access the specifically authorized data (e.g. billing and usage data). The customer can instantly revoke their authorizations at any time, which will immediately disable any access tokens associated with the authorization, cutting off data access to the previously authorized third party.

Additionally, for third parties, access tokens may only be obtained with the use of a randomly generated "client secret" issued during initial registration, which ensures that man-in-the-middle attacks during the OAuth authorization redirect process are not possible. Client secrets can also be rotated by third parties on-demand, so that administrators and third parties can quickly disable secrets if there is any evidence of a breach.

Finally, all customer and third party OAuth and Green Button API requests are logged with both the person who made the request and what data was requested, so that audits may be performed if there is suspicion of unauthorized data access.

Utility Usage Data and Meter Access

- a. What customer data should the utility share with CSPs and other third parties? Should different types of CSPs and other third parties have different access to customer data?

UtilityAPI believes that EDCs should be required to share, with customer permission, a complete dataset that includes (i) at least 48 months of historic energy usage information, (ii) ongoing usage information, (iii) billing information including bill line items and the customer's applicable rate (in cases where the customer is not purchasing the energy commodity from a competitive supplier), and (iv) account information, such as account numbers and information necessary to assess eligibility for, or participation in, demand management or renewable energy programs.

- b. What types of data should the EDCs withhold from CSPs and other third parties? Do the EDCs' current systems allow for this data to be restricted?

UtilityAPI believes that third parties should only be given the minimum information necessary to achieve a customer-authorized purpose. A best practice is for the Commission to explicitly define "unshareable data." Unshareable data should include bank account numbers, social security numbers, and credit/debit card numbers.

- c. In what format should the data be given? Should the data from each EDC be in an identical format (similar to the Electronic Data Exchange Working Group web portal data)? What other technical standards should be applied to the data?

Yes, the data from each EDC should be identical. GBC implementations by the EDCs should be proven to be identical via independent certification by the Green Button Alliance. UtilityAPI provides you with Attachment (GBC implementation best practices) for your review.

- d. Should aggregated data (i.e.—benchmarking or geographic data) be made available? Should aggregated data be available to a wider array of CSPs and other third parties?

UtilityAPI believes the Commission should consider aggregated data only *after* individual customer data (with consent) is established.

When aggregate data is necessary as a part of anonymization requirements, for example, we would like to highlight that UtilityAPI's solution can be configured with jurisdiction-specific parameters. Dataset consent restrictions can be dynamically toggled. For example, in Fort Collins Utilities, if aggregate data for a building does not meet the anonymization standard for the city, when a building owner requests the whole-building data, our solution automatically requires consent from the tenants, which can be fulfilled using the fully-digital GBC consent process. This means that both properly anonymized and consent-required datasets are fully automated and require no manual review by utility staff.

- e. Should the Commission establish standard protocols and communication mediums for providing direct access to usage information from the meter to the Home Area Network? If so, what should those be?

UtilityAPI would love to see the establishment of new and improved communication requirements for direct meter data access. The reality is that this matter has been settled by the EDCs when they purchased AMI in the first place. In our experience, any significant changes to the communication mediums would require replacement of the meters – an expensive proposition. UtilityAPI recommends that the Commission require any utility with advanced meters capable of a Home Area Network to create such a network, either using Zigbee Smart Energy Profile or IEEE2030.5 over Wifi.

- f. Should CSPs and other third parties be provided *direct access to the meter*? What policies or regulations should this Commission promulgate to ensure that these CSPs and other third parties are provided timely access under reasonable terms and conditions to the EDC's customer metering facilities?

Yes. UtilityAPI believes that customers should be able to connect *any* device of their choosing to their meter in order to receive direct, real-time energy readings. Utilities should be prohibited from imposing pre-screening requirements, device testing, fees, or other requirements on device makers.

- g. What communications, software or hardware can facilitate this direct access to the meter for customers and their approved CSPs and other third parties, and should the Commission establish requirements and or standards to facilitate this access?

No response.

- h. What electronic access to customer meter data do CSPs, other third parties, and EGSs need from EDCs, that they currently do not have? Provide specific examples where these entities do not have such access currently, and provide examples, if available, of electronic transactions that can be adopted to facilitate access.

Sunrun is one of our customers that uses our integrations with Green Button Connect. They need to get data for multi family housing units, where it would otherwise be very difficult to collect data from all property managers and tenants. They are actively using the collectors to gather data quickly and build a proposal for the MFH units. In addition to this, they need other, more granular data, such as interval data which is difficult to get without using UtilityAPI's platform. Normally, this could take them 3-5 weeks to get it from the utility. They can get it from us, however, on the same day, almost instantly. In the Attachment 1 on GBC implementation best practices, we have explained thoroughly how this could be applied in utilities.

Conclusion

UtilityAPI has extensive technical experience in developing, hosting and administering Green Button-based platforms for hundreds of thousands of users. We would like to thank you for this opportunity to provide comments and share our expertise. We truly appreciate the work of the Commission and Staff and we are looking forward to being part of this proceeding.

May 5, 2022

Respectfully submitted,

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Attachment 1

GBC implementation best practices

California Public Utilities Commission (CPUC) Customer Data Access Committee (CDAC)

UtilityAPI was an active participant in the CPUC's Customer Data Access Committee. UtilityAPI initially scoped and proposed three possible technical solutions to streamline the customer experience for demand response providers for the Green Button Connect implementations at the three largest investor owned utilities (IOUs) in California. The commission eventually mandated one of UtilityAPIs solutions, resulting in much greater adoption of demand response in the state.

The resulting white paper can be found here:

https://utilityapi.com/static/resources/UtilityAPI_CPUC-CDAC_Whitepaper.pdf

UtilityAPI and the Green Button Alliance also presented these findings in New York State to the Department of Public Service. A summary of those results can be found on p. 34 of the following document: <https://bit.ly/3FV038L>

Central Maine Power, Maine

Through a partnership with Uplight, UtilityAPI will be offering a scalable, standards-based Green Button Connect for CMP customers to authorize the sharing of their utility data with registered third parties.

Fort Collins Utilities, Colorado

In response to a state mandate requiring transparency for energy and water efficiency for 5,000 square feet and above commercial and multi-family buildings, the City of Fort Collins and Fort Collins Utilities launched the *Building Energy and Water Scoring Program*.

In order to control costs and minimize utility staff time, Fort Collins Utilities chose to partner with UtilityAPI to implement their program. Fort Collins was the first utility to automate data sharing for the purpose of benchmarking. They worked with UtilityAPI to develop a certified Green Button Connect platform that reports both back to the city and directly into the EPA's ENERGY STAR® Portfolio Manager®. By matching utility premise to a unique building identifier, UtilityAPI enabled Fort Collins to streamline the customer experience, leading to more customer-friendly services while complying with building performance standards policy.

UtilityAPI's Green Button Connect also helped Fort Collins stimulate their network of local solar vendors. Fort Collins has been able to securely connect third party solar vendors to consent-driven customer energy usage data using a minimum of staff time because they have automated the data request and authorization flow.

National Grid, New York

The state of New York requires all utilities to offer Green Button Connect functionality. After observing the slow roll out of GBCMD functions at other utilities, National Grid New York chose UtilityAPI to build its Green Button Connect as a white labeled solution.

Currently, the National Grid New York Green Button Connect is enrolling third parties in beta (testing) mode. When it launches full service, it will likely be the first certified Green Button Connect at an investor-owned utility.

New York is considering strengthening and increasing their requirements for sharing energy usage data. But National Grid will be prepared for whatever their regulators decide to require. Their Green Button Connect, hosted by UtilityAPI, is an extensible SaaS system, which will allow National Grid to remain in compliance with evolving regulatory requirements in their territory.

Silicon Valley Clean Energy, California

Silicon Valley Clean Energy wanted to make it easier to both start and monitor clean energy projects. SVCE chose UtilityAPI, the company that literally wrote the data exchange standards for Green Button Connect. UtilityAPI helped them achieve both of those goals by providing instant, authorized, and secure access to standardized energy data.

SVCE white-labeled UtilityAPI's GBC platform, branding it as their own "Data Hive". Data Hive reduces friction in the market by addressing both the costs and the hassle of giving and receiving authorized access to customer data.

SVCE is a community choice aggregator (CCA). They supply energy for their communities, but they do not run the distribution network, which is run by Pacific Gas & Electric. This split relationship led to unique challenges and opportunities in launching their system, as we needed to standardize data from multiple sources that shared the same customer.

UtilityAPI's platform was key to helping SVCE launch a unique EV charging program for customers who are tenants of multifamily housing, a group of people traditionally excluded from the benefits of clean energy and efficiency improvements.

Peninsula Clean Energy, California

Peninsula Clean Energy, another CCA, also chose UtilityAPI to help them offer data exchange services to third parties, businesses, and customers in their territory, which abuts SVCE's territory.

While their goals resemble SVCE's, Peninsula Clean Energy also has many large, innovative commercial customers within their service area. Those customers have their own environmental, social, and governance (ESG) mandates and decarbonization goals. Energy usage data is key to measuring, verifying and meeting those goals.

Peninsula Clean Energy needed a solution that would allow them to automate and standardize energy data exchanges for those large commercial customers. And they also wanted to give a boost to their local third party and small business vendors who need this data to offer their services.

With UtilityAPI, they can now offer one single platform solution that lets commercial customers access the data they need for their ESG reporting, while also allowing small, innovative third parties to get consent-driven authorized access to the customer data they need to do their work.