

# Guidelines to comply with the energy data portability provision of the IRA

By: Michael Murray, Mission:data Coalition

Last updated: February 9<sup>th</sup>, 2023

IRA, page 219: “(5) DATA ACCESS GUIDELINES.—The Secretary shall develop and publish guidelines for States relating to residential electric and natural gas energy data sharing.”

## Definition of Terms

Utility	A regulated electric or natural gas distribution utility that owns and/or operates metering equipment on Customers’ premises. A Utility does not include a Utility’s parent company or unregulated affiliates.
Customer	A retail electric or retail natural gas customer, whether residential, commercial, or industrial.
Third Party	Any entity explicitly authorized by a Customer to receive that Customer’s data held by a Utility.
Green Button Connect	The most current version of Green Button Connect My Data standard.
Covered Information	“Covered Information” means any information that is “Standard Customer Data,” “Unshareable Personal data,” and “Grid Edge Data.” Covered information does not include, however, aggregated data. Covered information also does not include information provided to a Commission pursuant to its oversight responsibilities.
Best Available Data	Data that is 1) applicable to the Customer’s account who granted the authorization; (2) correct and accurate to the best of the Utility’s knowledge at that time; and (3) transmitted to Third Parties in a timely manner after the Utility is made aware of changes to the applicable Customers’ Standard Customer Data.
Standard Customer Data	With a minimum of 24 months, or the period of time that a Customer has had an account at a given address, whichever is less, Standard Customer Data must include the following:  (i) all energy usage data collected by a meter that a utility maintains as part of its regular records in the ordinary course of business, including

	<p>kilowatt-hours used, load profile, and, where applicable to certain rate classes, kilo-volt-amps, kilo-volt-amperes-reactive, power factor, and the like;</p> <p>(ii) customer-specific information including customer name, mailing address, premise address, any contact information, payment history, account number(s), bill PDFs and all information on bills including, but not limited to, line item charges and charge descriptions, amounts billed, the rate or tariff applicable to the account or meter, billing cycle dates, etc.;</p> <p>(iii) any information that might be necessary for participation in, or to determine customer eligibility for, bill payment assistance, renewable energy, demand-side management, load management, or energy efficiency programs; and</p> <p>(iv) Grid Edge Data.</p> <p>Standard Customer Data does not include Unshareable Personal Data.</p> <p>In restructured retail markets for electricity or natural gas with supplier-consolidated billing, Standard Customer Data must include as much of the above definition in the Utility's possession as possible.</p>
Unshareable Personal Data	Birth date, biometrics, driver's license number, credit or debit card information, customer banking information, social security numbers, credit score, bankruptcy or probate information, health information, or network or internet protocol address of the customer or any person at the customer's location.
Grid Edge Data	If measured and analyzable by a Utility's electric meter at a given Customer premises, the power, voltage, current, or other aspects of electric energy, at whatever granularity or frequency it is sampled and analyzable by the meter, including any estimates or inferences calculated therefrom that pertain to or reflect the characteristics of an individual Customer's use of electric energy.
Regulator	A public utility commission, cooperative board or municipal board with rate-setting and other authority over a Utility.
Primary purpose	The regulated delivery and/or billing of electricity or natural gas, or any related service that is directly and explicitly required by a Regulator.
Secondary purpose	Any purpose that is not a primary purpose.
Whole-Building Data	The sum of energy usage from two or more individual electric or natural gas meters in a building, as measured monthly, suitable for benchmarking according to the latest guidelines or standards used by building energy modeling or benchmarking systems such as ENERGY STAR Portfolio Manager.

## Note on language usage

The words must, should and may are used herein in a similar manner as that used by the Internet Engineering Task Force's Request for Comments (RFCs) relating to software requirements.<sup>1</sup>

- **“May”** means that an item is truly optional.
- **“Should”** means that an item is recommended, but there may exist valid reasons in particular circumstances to ignore a particular item, and the full implications must be understood and carefully weighed before choosing a different course.
- **“Must”** is equivalent to “required,” indicating an absolute requirement. Note: These Guidelines are recommendations due to DOE's limited statutory authority over retail electric and retail natural gas matters. Despite this limitation, the word “must” is useful in articulating data portability terms, technologies and policies that are the recommendation of the Department of Energy and are not intended to assert new legal authority on the part of DOE.

## Guidelines

### 1. Eligibility of Third Parties

To protect the privacy and security of Covered Information, Utilities must apply eligibility criteria to Third Parties as follows. To be eligible to receive Standard Customer Data, Third Parties shall be required by Utilities to:

- (a) provide contact information and, if not an individual, a federal tax identification number to a Utility;
- (b) acknowledge receipt and review of these privacy and access guidelines;
- (c) not have been disqualified as a Third Party by the Regulator pursuant to processes outlined below; and
- (d) adopt and comply with the most updated version of the 2015 Department of Energy's Voluntary Code of Conduct Final Concepts and Principles for Data Privacy and the Smart Grid (“DataGuard”) or a similar nationally accepted eligibility standard approved by the Regulator as a necessary, comparable, reasonable and appropriate alternative.

---

<sup>1</sup> <https://www.ietf.org/rfc/rfc2119.txt>

Regulators may consider cybersecurity requirements for Third Parties, but Regulators must not impose cybersecurity requirements that are discriminatory, unnecessarily costly, or subjectively evaluated by Utilities.

**References:**

Similar eligibility criteria for Third Parties have been established in states such as California (D.13-09-025<sup>2</sup>), Colorado (15A-0789E<sup>3</sup>), New Hampshire (DE 19-197 Order 26,589<sup>4</sup>), New York (20-M-0082<sup>5</sup>) and Texas (47472<sup>6</sup>).

## 2. Protection of Covered Information

- (a) **Obligations of Utilities.** Utilities are authorized to use covered information for Primary Purposes. Utilities must attain Customer authorization to use covered information for any Secondary Purpose. Utilities should be prohibited from providing Unshareable Personal Data with any entity other than the Customer. Utilities must not receive compensation, whether financial or consideration of any kind, for the provision of covered information except as authorized by a Regulator.
- (b) **Disclosure by a Utility without Customer consent.** A Utility may disclose Covered Information to a Utility contractor without Customer consent only:
- (i) When explicitly ordered to do so by a Regulator; or
  - (ii) For a Primary Purpose being carried out under contract with and on behalf of the Utility; provided that the Utility shall, by contract, require the Utility contractor to agree to use the data only for the Primary Purpose and to access, collect, store, use, and disclose the Covered Information pursuant to policies, practices and notification requirements no less protective than those under which the Utility itself operates, unless otherwise directed by a Regulator. As part of this contractual agreement, Utilities shall require Utility contractors to provide similar

---

<sup>2</sup> <https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M077/K191/77191980.PDF>

<sup>3</sup> Colorado Electric Rule 723-3 3027(e) states, “Nothing in these rules shall limit a customer’s right to provide his or her customer data to anyone.”

<sup>4</sup> [https://www.puc.nh.gov/Regulatory/Docketbk/2019/19-197/ORDERS/19-197\\_2022-03-02\\_ORDER-26589.PDF](https://www.puc.nh.gov/Regulatory/Docketbk/2019/19-197/ORDERS/19-197_2022-03-02_ORDER-26589.PDF) See also Appendix C of the settlement agreement at [https://www.puc.nh.gov/Regulatory/Docketbk/2019/19-197/LETTERS-MEMOS-TARIFFS/19-197\\_2021-04-28\\_EVERSOURCE\\_JT\\_SETTLEMENT\\_AGREEMENT.PDF](https://www.puc.nh.gov/Regulatory/Docketbk/2019/19-197/LETTERS-MEMOS-TARIFFS/19-197_2021-04-28_EVERSOURCE_JT_SETTLEMENT_AGREEMENT.PDF)

<sup>5</sup> <https://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={A228D385-3E0E-41BC-A433-8ABD62F8A6E4}>

<sup>6</sup> [https://interchange.puc.texas.gov/Documents/47472\\_126\\_981735.PDF](https://interchange.puc.texas.gov/Documents/47472_126_981735.PDF) See also list of business requirements at <https://interchange.puc.texas.gov/search/documents/?controlNumber=47472&itemNumber=100>

contractual protections for Covered Information in the context of all subsequent disclosures for Primary Purposes.

**References:**

Similar privacy protections for customer data have been adopted by California, Colorado, Illinois, Michigan, and New York. The concept of Unshareable Personal Data also exists in DataGuard.

### 3. Provision of Standard Customer Data

- (a) **Customer rights.** Customers must have the right to access and share their own Standard Customer Data with Third Parties of their choice to obtain services or products provided by Third Parties. Customers must have the ability to ensure accuracy of covered information held by Utilities and Utility contractors.
- (b) **Control.** As part of basic Utility service, upon Customer request, a Utility must provide a Customer's Standard Customer Data to any Third Party in an electronic, machine-to-machine method in conformity with the latest version of Green Button Connect My Data. Standard Customer Data delivered in this manner must at all times be the Best Available Data. Utilities must ensure adequate protections for the Utility's system security and the continued privacy and security of the data during transmission.
- (c) **Grid Edge Data.** In cases where a Utility has Grid Edge Data on electric meters or the ability to transmit real-time electric usage or other information to the customer's premise, Utilities must enable this capability promptly upon the request of the Customer.

**References:**

Requiring Utilities to provide customer data to Third Parties electronically upon the consent of the Customer has been adopted in California (D.13-09-025), Colorado (Xcel 16A-0588E), Illinois (14-0507), Kentucky (LG&E 2020-00350<sup>7</sup>), Michigan (Consumers Energy U-21116), Ohio (Dayton Power & Light 18-1875-EL-GRD), New York<sup>8</sup> and Texas (47472, 48745). As of December 2022, provision of Grid Edge Data is being considered in Colorado (21A-0279E), New Jersey (EO20110716) and New York (20-M-0082).

### 4. Consent process

<sup>7</sup> [https://psc.ky.gov/pscscf/2020%20cases/2020-00350/20210630\\_psc\\_order.pdf](https://psc.ky.gov/pscscf/2020%20cases/2020-00350/20210630_psc_order.pdf)

<sup>8</sup> See, e.g., orders in Case Nos. 14-M-0101, 15-M-0180, 16-E-0060, 20-M-0082, etc.

- (a) **Informed consent.** Consent to share information with a Third Party shall be freely given. Separate authorization by each Customer must be granted for each distinct Secondary Purpose; however, consistent with 2012 Federal Trade Commission guidance, Third Parties do not need to provide Customer choice before transmitting data to a contractor or intermediary (including, but not limited to, a cloud service provider) if such transmission is consistent with the context of the transaction or the Third Party's relationship with the Customer.<sup>9</sup>
- (b) **Utility obligations.**
- (i) Utilities must make the consent process convenient and secure.
  - (ii) Utilities must permit online authorizations by Customers without requiring creation of an online account. In this case, Utilities should authenticate Customers with one-time passcodes or other user-friendly methods. Utilities must not force any Customer granting an authorization to accept electronic billing or any other change to their Utility account or service.
- (c) **Ease of use.**
- (i) Customer authorizations to disclose Standard Customer Data, or any portion thereof, must involve Customer authentication in a manner consistent with, and no more onerous than, the standard authentication process used by Utilities when a Customer creates an online account on a Utility's website or when a Customer calls the Utility by telephone.
- (d) **Consent process.** The consent process must disclose to the Customer:
- (i) The name of the Third Party;
  - (ii) The category of information to be shared, with a succinct description of each;
  - (iii) The accounts or meters to be shared, which the Customer can select;
  - (iv) The intended purpose and the use of the data being requested;
  - (v) The time period, including an indefinite term, during which the secondary use will take place; and
  - (vi) Information about the Third Party's privacy policy.

---

<sup>9</sup> Federal Trade Commission, *Protecting Consumer Privacy in an Era of Rapid Change*, March 2012, available at <https://www.ftc.gov/sites/default/files/documents/reports/federal-trade-commission-report-protecting-consumer-privacy-era-rapid-change-recommendations/120326privacyreport.pdf>

**References:**

Similar consent requirements regarding ease of use have been established in California, Colorado, Illinois, New York, Ohio (18-1875-EL-GRD<sup>10</sup>) and Texas (47472). Principles of informed consent have also been established in DataGuard and referenced in New Hampshire (DE 19-197)

## 5. Revocation of authorization

- (a) **Customer rights.** Customers must have the right to revoke, at any time, any previously granted authorization. Termination of electric utility service should terminate consent to disclose customer data granted by the Customer for the account(s), meter(s) or premise(s) where Utility service has been terminated.
- (b) **Utility obligations.**
  - (i) A Utility must permit a Third Party to terminate its authorization to specific Customers; in such case, a Utility should subsequently notify affected Customer of the termination via the Customer's preferred contact method and confirm to the Third Party that the termination is accepted.
  - (ii) A Utility must permit Customers to revoke authorization for any Secondary Purpose of their Standard Customer Data by website and by telephone.

## 6. Performance

- (a) **Service Level Agreement.** Regulators must require the following of Utilities:
  - (i) **Uptime.** Utilities must provide Green Button Connect My Data and customer authorization system availability exceeding 99.5% availability without severe errors or defects.
  - (ii) **Timeliness.** Following receipt of a valid Customer authorization, Utilities must electronically initiate availability of requested data to the Third Party within 90 seconds.
  - (iii) **Issue management.** Utilities must provide a tracking system for Customers and Third Parties to report issues or problems with the system.
- (b) **Certification.** Utilities must provide to the Regulator periodic certification of adherence to the latest Green Button Connect My Data standard by an independent body.

---

<sup>10</sup> Pages 25-27: <https://dis.puc.state.oh.us/ViewImage.aspx?CMID=A1001001A20J23A90654F03824>

(c) **Reporting.** Utilities should report on a publicly accessible website the timeliness and performance of processing electronic data-sharing authorizations, including:

- (i) Number of Customers who have granted authorizations over a given time period
- (ii) Duration and percent of Customers that complete the authorization flow from start page through authentication to authorization, by device type or screen size
- (iii) Percent availability of the application programming interfaces (“APIs”) measured as operational time without returning errors and delivering the data requested
- (iv) Percent availability of the customer-facing authentication and authorization web pages operating without errors
- (v) Time elapsed between Customer authorization and beginning to transmit Standard Customer Data to a Third Party (mean and 90% percentile)
- (vi) API response times in milliseconds (synchronous and asynchronous), including mean, median, count of responses greater than 90 seconds, percent of responses greater than 90 seconds
- (vii) Web page response times in milliseconds, including mean, median, 90th percentile load time, etc.
- (viii) Number, type and severity of errors over a given time period, with a description of the error
- (ix) Number, type and severity of open support issues, including mean acknowledgment time and mean resolution time
- (x) Time to complete Third Party administrative onboarding
- (xi) Time to complete Third Party technical onboarding
- (xii) Number of Third Parties in various stages of onboarding

**References:**

Similar performance metrics have been mandated in California (E-4868), New York (20-M-0082) and Texas (47472).

## 7. Customer Notices

Not more than once annually, Regulators should require Utilities to provide notices to Customers listing the Third Parties that are authorized to receive Standard Customer Data and informing Customers how to revoke such authorizations.



## 8. Enforcement Against Bad Actors

- (a) **Process.** Regulators should establish a process by which complaint allegations against Third Parties are reviewed. In cases where the Regulator does not have authority over Third Parties, the Regulator can use its authority over a Utility to terminate access after an investigation. In order to protect competition between Utilities and Third Parties, Regulators must not delegate investigatory powers to Utilities.
- (b) **Fair competition.** In order to ensure fair access and competition, Utilities must not unilaterally terminate or suspend a Third Party for any reason, except in extreme cases involving verified cybersecurity threats to be defined by a Regulator.
- (c) **Due process.** Third Parties must be granted due process considerations prior to any enforcement action being taken, such as termination of access.

### **References:**

Similar enforcement procedures have been adopted by California (D.13-09-025), New Hampshire (DE 19-197) and Texas (47472).

## 9. ENERGY STAR

Regulators should not require the authorization of each individual account holder prior to transmitting Whole-Building Data to either a Customer or to ENERGY STAR Portfolio Manager, provided that:

- (a) The Customer and requestor is an account holder, owner or manager of the building in question;
- (b) There are at least four (4) meters electric meters or four (4) natural gas meters contained within the requested Whole-Building Data, and the usage of each meter does not exceed 50% of the total usage for that fuel type in the building when evaluated annually. If a Regulator has already established aggregation thresholds that are fewer than four meters or less than 50%, then Regulators should maintain those existing aggregation thresholds.

Regulators should consider establishing non-disclosure agreements between Utilities and Customers requesting Whole-Building Data such that Customers agree to use Whole-Building Data for the sole purposes of ENERGY STAR benchmarking and energy and carbon management.

**References:**

Similar aggregation thresholds and non-disclosure provisions have been adopted in California, Illinois and New York.

10. Liability Limitation

Utilities should not be liable for an authorized Third Party's misuse of customer data provided that Utilities receive a valid consent and encrypt the customer data in transit to a Third Party.

**References:**

Similar liability limitations have been adopted in California (D.13-09-025), New York, and Texas (47472).