STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

In the Matter of Distributed System Implementation Plans ) Case 16-M-0411
Proceeding on Motion of the Commission in Regard to ) Case 14-M-0101
Reforming the Energy Vision )

JOINT UTILITIES’ BENCHMARKING OF AGGREGATED CUSTOMER DATA
PRIVACY AND PROPOSED PRIVACY STANDARD FOR BUILDING ENERGY
MANAGEMENT

I. INTRODUCTION

As required by the Public Service Commission’s (“Commission”) Order on Distributed System Implementation Plan Filings (“DSIP Order”), related to distributed system platform capabilities to achieve Reforming the Energy Vision (“REV”) goals, the Joint Utilities submit this filing proposing “building energy management and benchmarking data standard(s) for the Commission’s consideration.” As discussed further below, the Joint Utilities propose a 4/50 privacy standard as the basis for utilities providing whole-building aggregated data to building owners or their authorized agents. The 4/50 privacy standard requires the building to have at least four accounts where no single account represents 50 percent or more of the annual energy use of the building. If the building has less than four accounts, or four or more accounts with any single account representing 50 percent or more of the total energy use for a given type of

1 Case 16-M-0411, In the Matter of Distributed System Implementation Plans (“DSIP Proceeding”), Order on Distributed System Implementation Plan Filings (issued March 9, 2017)(“DSIP Order”).
2 Case 14-M-0101, Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision (“REV Proceeding”).
4 DSIP Order, p. 32.
service (e.g., electric, gas, or steam service), the building owner or operator will need individual tenant authorization to access the aggregated energy use data supplied by the utilities.

In their Supplemental Distribution System Implementation Plan (“DSIP”), the Joint Utilities stated their support of sharing of useful information to support DER market growth. The Supplemental DSIP summarized the steps the utilities are taking individually and jointly to offer enhanced access to customer usage data, based on their respective current and planned technical capabilities. The Supplemental DSIP also outlined a common construct for basic and value-added customer and system data and, pertinent to this filing, proposed a data privacy standard for aggregated customer data. In general, a privacy standard for aggregated energy data is defined as the minimum configuration and characteristics of energy accounts that, when aggregated over a geographic area or building, are expected to provide a reasonable expectation of customer privacy by not revealing or permitting determination of individual customer-specific energy use. Requestors, including building owners or agents, typically need to obtain individual

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5 Annual consumption would be determined on a 12-month rolling basis, calculated from the date a request is received by the utility.
6 For purposes of this standard, whole-building aggregated data is defined as annual kWh for electric usage and annual terms or CCF for gas usage, summed across all accounts located in a given building, without providing further detail on sub-categories of accounts (e.g., data broken down by service classification of type of account).
7 DSIP Proceeding, Joint Utilities Supplemental Distributed System Implementation Plan (filed November 1, 2016) (“Supplemental DSIP”). The Joint Utilities filed Individual DSIPs on June 30, 2016. REV Proceeding, Central Hudson Initial Distribution Implementation Plan (“Central Hudson DSIP”), Con Edison Initial Distribution System Implementation Plan (“Con Edison DSIP”), Niagara Mohawk Power Corporation d/b/a National Grid Initial Distribution Implementation Plan (“National Grid DSIP”), NYSEG/RG&E Distributed System Implementation Plan (“NYSEG/RG&E DSIP”), Orange & Rockland Initial Distributed System Implementation Plan (“O&R DSIP”) (all filed June 30, 2016). National Grid made an errata filing on July 1, 2016 to correct a number of format issues which replaced the June 30, 2016 National Grid DSIP in its entirety. Both the Initial DSIPs and the Supplemental DSIP were developed pursuant to REV Proceeding, Order Adopting Distributed System Implementation Plan Guidance (issued April 20, 2016)”(DSIP Guidance Order”).
8 Id., p. 119.
10 Id., pp. 121, 144.
customer authorization to access data when an aggregation does not meet the data aggregation privacy standard.

In the Supplemental DSIP, the Joint Utilities proposed a 15/15 privacy standard for aggregated data provided by utilities to third parties.\(^\text{11}\) That standard requires aggregated data to be drawn from a minimum of 15 accounts and limits the energy usage of any single account in the aggregation to no more than 15 percent of the total load for the aggregated data set.\(^\text{12}\) The basis for the Joint Utilities’ approach to aggregated data privacy arises out of the long-standing and ongoing obligation to protect customer information. That being said, the Joint Utilities will revisit this approach as the market matures.\(^\text{13}\) The Joint Utilities also propose to establish exceptions to the 15/15 standard for purposes of complying with existing laws and ordinances, such as Local Law 84\(^\text{14}\) in New York City.\(^\text{15}\)

In the DSIP Order, the Commission agreed with the Joint Utilities that protecting customer information is critical and adopted the 15/15 standard for most use cases. However, the Commission found that applying the 15/15 standard to the use of building energy management data could limit the number of buildings able to report their building energy consumption without customer authorization.\(^\text{16}\) Therefore, the Commission directed the Joint Utilities to work with Department of Public Service Staff (“Staff”) and stakeholders to benchmark data privacy standards used in other jurisdictions and determine an appropriate

\(^{11}\) Id., p. 144
\(^{12}\) This standard does not include utility vendors or contractors with proper authority or authorization as required by law or Commission order. DSIP Proceeding, Supplemental DSIP, pp. 122.
\(^{13}\) Id., p. 144.
\(^{14}\) NYC Admin Code, Title 28, Article 309 (commonly known as Local Law 84).
\(^{15}\) DSIP Proceeding, Supplemental DSIP, p. 144.
\(^{16}\) DSIP Proceeding, DSIP Order, p. 27.
customer privacy standard for aggregated whole-building data to be supplied to building owners or their authorized agents statewide.

Based on Staff guidance, stakeholder engagement, and the aggregated data benchmarking efforts, the Joint Utilities propose to adopt a 4/50 privacy standard for whole-building aggregated data supplied to building owners or their authorized agents, in conjunction with specific terms and conditions for requesting, receiving, maintaining, and using the data. This standard would apply independently to each fuel type when considering data access. The Joint Utilities also propose to establish exceptions to the 4/50 standard to comply with local laws and ordinances.

In addition, to better develop the issue of providing aggregated data to the public, as part of the ongoing work of the Joint Utilities Customer Data Working Group, the Joint Utilities will continue discussions with stakeholders in 2017 and into 2018.

II. BENCHMARKING AND STAKEHOLDER ENGAGEMENT

During the development of the Supplemental DSIP, the Joint Utilities convened a stakeholder engagement group to present current customer data sharing practices, better understand stakeholder perspectives, and solicit input on key customer data issues. Topics included data collection, reporting frequency and availability of usage data, aggregation of usage data, additional data needs, and data privacy. These stakeholder discussions provided a broad spectrum of perspectives on privacy standards for data, both customer-specific and aggregated.

As discussed in greater detail below, the Joint Utilities re-engaged stakeholders in 2017 as a part of their implementation plans outlined in the Supplemental DSIP. The Joint Utilities

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17 In 2016, the Joint Utilities held six stakeholder engagement sessions with interested parties on customer data issues. The summary presentation material of 2016 customer data discussions is available on www.jointutilitiesofny.org.
18 DSIP Proceeding, Supplemental DSIP, p. 137.
held a full-day stakeholder engagement session on May 22 in New York City (also accessible via webinar). Prior to the May 22 session, the Joint Utilities circulated a straw proposal to interested stakeholders that outlined a statewide 4/50 standard for data shared with building owners, excluding buildings that are covered by local laws or ordinances. The Joint Utilities sought stakeholder input on the straw proposal, and also used stakeholder feedback to develop the materials for the engagement session.

**A. Benchmarking Other Jurisdictions**

To develop this filing, the Joint Utilities reviewed their previous benchmarking efforts as well as additional sources of information on whole-building data privacy standards and practices, including those suggested by stakeholders. In total, the Joint Utilities evaluated sixteen different primary and secondary information sources, the links to which are included in Appendix 1. The standards assessment included thresholds involving a minimum number of accounts, a combination of minimum number of accounts with a maximum energy usage volume per account, or simply by building type (i.e., non-residential). The Joint Utilities also considered the terms and conditions that building owners/operators in other jurisdictions must agree to before receiving and using aggregated customer data. Finally, the Joint Utilities evaluated whole-building data aggregation privacy standards and practices in California, Colorado, Illinois, Maryland, Massachusetts, Minnesota, Oklahoma, Oregon, Texas, Utah, and Washington to design a proposal for statewide standards and practices in New York.

**B. Summary of 2017 Stakeholder Engagement**

As noted above, the Joint Utilities hosted a stakeholder engagement meeting on May 22 (see Appendix 2 for participating organizations). The morning session included an overview of the 2016 customer data stakeholder efforts, implementation plans for 2017 in support of the
commitments in the Supplemental DSIP, and a roundtable discussion on public access to aggregated whole-building data. During the afternoon session, the Joint Utilities reviewed the results of their benchmarking and requested feedback from stakeholders on the proposed 4/50 standard for building energy management and benchmarking data.

The discussion was productive and resulted in greater clarity of stakeholder priorities and concerns. For example, some stakeholders stressed the importance of benchmarking building energy usage as a means to achieve state and municipal clean energy goals. These stakeholders also said that it is critical to make it simple for building owners to benchmark their buildings, particularly for voluntary benchmarking programs (i.e., those not covered by a local law or ordinance). As a result, some stakeholders are interested in reducing or eliminating perceived obstacles to accessing aggregated whole-building data. Those stakeholders proposed easing the 4/50 standard to increase the number of buildings that satisfy the privacy thresholds and eliminate the requirement for individual customer consent, providing exceptions to the standard for buildings subject to local laws or ordinances that require benchmarking; and/or limiting the terms and conditions.

Some stakeholders also requested that the utilities consider adding an exception to the standard, so that building owners who are participating in voluntary municipal energy efficiency (“EE”) programs could also receive building usage information without individual customer consent. This would allow building benchmarking to be facilitated in cases where the municipal government has not passed a law requiring building benchmarking or addressing associated customer consent issues.

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19 For example, in notes provided to the Joint Utilities via email on June 2, 2017, Natural Resources Defense Council and Urban Green Council proposed an alternate account threshold of two accounts.
As to customer consent, stakeholders suggested options to potentially reduce the burden of receiving customer authorization and proposed process improvements. These included establishing an online utility portal for receiving customer consent, or requiring building owners to establish consent on an opt-out basis, whereby customer data would be released absent an objection by the customer within a defined response period.

The Joint Utilities and stakeholders emphasized the need to balance data sharing with protecting customer privacy. Adequate privacy protections mitigate the risk of a utility releasing data that could be used for a number of purposes to which customers would object, including by competitors to gain insight into a non-residential customer’s operations or individual residential customer’s energy usage patterns. Because of the potentially sensitive nature of this data, it is essential that the standard require that release of data be sufficiently anonymized prior to release and pursuant to terms and conditions sufficiently robust to prevent unauthorized transfer of the data.

Some stakeholders indicated a strong preference for a privacy standard that includes a consumption threshold in addition to a minimum number of accounts. Such a threshold provides an additional layer of protection by giving those customers, whose consumption represents a significant share of a building’s overall usage, the opportunity to raise objections before aggregated whole-building data is released. Some stakeholders also noted that well-defined terms and conditions placed upon building owners, such as the example terms and conditions included in the Joint Utilities’ straw proposal and attached as Appendix 3, can afford customers reasonable protections against unauthorized use or disclosure of their information.

The Joint Utilities considered these concerns when developing the proposed privacy standard. Broadly speaking, the Joint Utilities are committed to continuing to examine how
other utilities with similar privacy standards are managing exceptions to the standard, aggregation requests, authorization procedures and other related processes. The Joint Utilities plan to share their findings and recommendations with stakeholders through planned engagement sessions commencing later in 2017.

III. JOINT UTILITIES’ PROPOSED PRIVACY STANDARD FOR AGGREGATED BUILDING ENERGY MANAGEMENT AND BENCHMARKING DATA

Based on the benchmarking of other jurisdictions, as well as the robust discussion during the May 22 stakeholder session, the Joint Utilities propose to adopt an aggregated whole-building data privacy standard of 4/50. The Joint Utilities attempted to balance sharing data in support of EE and clean energy goals, protecting customer privacy, and attention to the cost of implementing process improvements, while recognizing that the Joint Utilities, and markets included in the benchmarking, are gaining more experience with applying a standard to aggregation requests, which should provide informative operational experience with processing such requests. The Joint Utilities propose this standard to achieve that balance by reducing the number of buildings that require customer authorization relative to the current 15/15 standard, providing adequate layers of protection to maintain customer control over sensitive customer data, and granting exceptions for buildings with compliance obligations under local laws or ordinances.

A. Proposed Standard for Aggregated Customer Data Privacy for Whole Buildings

After evaluating practices across the country and considering stakeholder input, the 4/50 whole-building data aggregation privacy standard for New York, when implemented with appropriate terms and conditions, will both protect customer privacy and facilitate access to
building energy usage information for EE measurements or improvements and environmental policy objectives.

The 4/50 standard will be applicable to commercial, residential, and multifamily buildings. This standard applies to building owners, operators, and authorized agents seeking access to whole-building energy data without individual tenant authorization. Consistent with the implementation of the existing 15/15 standard, an exception to the 4/50 standard will be made when necessary to comply with local laws or ordinances. The Joint Utilities note that, in its Order Authorizing Framework for Community Choice Aggregation Opt-out Program, the Commission required elected officials to approve these programs before being implemented because such approval is “a reasonable proxy for customer consent” for utilities to share data with third parties, among other things.20 The Joint Utilities agree and believe that a local law or ordinance that requires building owners to benchmark their buildings’ energy usage serves as a reasonable proxy for customer consent for utilities to share data with building owners without authorization from affected tenants.

The example terms and conditions referenced by the Joint Utilities include but are not limited to:

- Proof of ownership/authorized agent;
- User agreement, that may include non-disclosure and other applicable terms and conditions, required for authorized requesters;21 and
- As value-added data, aggregated data may be subject to a fee.22

20 Case 14-M-0224, Proceeding on Motion of the Commission to Enable Community Choice Aggregation Programs, Order Authorizing Framework for Community Choice Aggregation Opt-out Program (issued April 21, 2016), p. 20.
21 Example terms and conditions provided to stakeholders as part of the straw proposal were based on the Terms and Conditions approved by the Colorado Public Utilities Commission, included as Appendix 3.
B. Supplying Aggregated Whole-building Data to the Public

In the DSIP Order, the Commission directed the Joint Utilities to “consider a standard for supplying aggregated whole-building data to the public.” As part of the May 22 stakeholder engagement, the Joint Utilities initiated discussions with stakeholders to understand the different needs for public access to data. An issue that surfaced during these discussions was the need to clarify whether public access refers to data released for public purposes, such as government or academic studies, or data available to the general public. In addition, this discussion revealed the importance of defining the granularity of the data provided.

To better develop the issue of providing aggregated data to the public, as part of the ongoing work of the Joint Utilities Customer Data Working Group, the Joint Utilities will continue these discussions with stakeholders in 2017 and into 2018. At this time, however, the majority of requests for whole-building data access are from large business owners who request data for their buildings in order to comply with a local ordinance. The Joint Utilities will continue to assess the market’s appetite for public access to whole-building data and gather stakeholder input regarding such requests, recognizing the utilities’ need to protect its customers’ privacy.

IV. CONCLUSION

The Joint Utilities support the sharing of aggregated customer usage data to help achieve REV objectives. The proposed 4/50 privacy standard for aggregated building usage data supplied to owners or their authorized agents seeks to balance REV’s open and transparent markets with the need to protect customer privacy.

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22 DSIP Proceeding, Supplemental DSIP, p. 143
23 The public includes individuals who are not authorized building owner agents. DSIP Proceeding, DSIP Order, p. 28.
Dated: June 7, 2017

Respectfully submitted,

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APPENDICES
APPENDIX 1. Benchmarking Research Sources

   [https://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/Guide%20to%20Data%20Access%20and%20Customer%20Confidentiality_0.pdf](https://betterbuildingssolutioncenter.energy.gov/sites/default/files/attachments/Guide%20to%20Data%20Access%20and%20Customer%20Confidentiality_0.pdf)


3. Pacific Northwest national Laboratory – Commercial Building Tenant Energy Usage Data Aggregation and Privacy (October 2014):

4. RAP – Driving Building Efficiency with Aggregated Customer Data (July 2013):

5. Energy Star Portfolio Manager – Find utilities that provide energy data for benchmarking:
   [https://www.energystar.gov/buildings/owners_and_managers-existing_buildings/use_portfolio_manager/find_utilities_provide_data_benchmarking](https://www.energystar.gov/buildings/owners_and_managers-existing_buildings/use_portfolio_manager/find_utilities_provide_data_benchmarking)


   [https://www.energystar.gov/sites/default/files/tools/Web_Services_Fact_Sheet_08302016_508.pdf](https://www.energystar.gov/sites/default/files/tools/Web_Services_Fact_Sheet_08302016_508.pdf)


11. Code of Colorado Regulation (CCR) 723-3: 
   https://www.sos.state.co.us/CCR/Upload/AGORequest/AdoptedRules02014-00436.DOC
12. Illinois Commerce Commission – Investigation of Applicability of Section 16-122 and 16-108.6 of the Public Utilities Act: 
   http://webapp.psc.state.md.us/Intranet/Casenum/NewIndex3_VOpenFile.cfm?ServerFilePath=C:\Casenum\9100-9199\9154\693.pdf
15. City of Austin – The Energy Conservation Audit and Disclosure Ordinance, Austin City Code, Chapter 6-7 (Updated November 2013): 
APPENDIX 2. Participating Organizations in the May 22, 2017 Stakeholder Session

The May 22, 2017 stakeholder session on customer data issues was held in New York City. The following organizations participated in the meeting either in-person or virtually:

- Association for Energy Affordability
- Consumer Power Advocates
- Direct Energy
- Electric Power Research Institute
- Energy Technology Savings
- Environmental Defense Fund
- EnerNOC
- ICF
- NRG Energy
- Natural Resources Defense Fund
- New York City Mayor’s Office of Sustainability
- New York Power Authority
- New York State Department of Public Service
- New York State Department of State Utility Intervention Unit
- Siemens
- Urban Green Council
APPENDIX 3. Example Terms and Conditions for Property Owner Request for Whole Building Energy Use Data from a Utility

Source:
Colorado Public Utilities Commission
4 Code of Colorado Regulations (CCR) 723-3
Part 3: Rules Regulating Electric Utilities
Proceeding No. 14R-0394EG
Decision No. C15-0752
https://www.sos.state.co.us/CCR/Upload/AGORequest/AdoptedRules02014-00436.DOC

3034. Property Owner Request for Whole Building Energy Use Data from a Utility.

(a) If requested by a property owner or its authorized agent, a Tier I utility shall provide whole building energy use data to the property owner or its authorized agent so long as:

(I) the whole building energy use data contains at least four customers or tenants, which may include the property owner’s own account; and no single customer’s customer data, unless it is the property owner’s, comprises more than 50 percent of the whole building energy use data used to generate the whole building energy use data report;

(II) the property owner agrees to not disclose the whole building energy use data except for the purposes of building benchmarking, identifying energy efficiency projects, and energy management; and

(III) the property owner signs a non-disclosure agreement with the utility requiring the property owner, at a minimum to:

(A) take appropriate administrative, technical, and physical safeguards to protect the whole building data from any unauthorized use or disclosure to protect the data from unauthorized access, destruction, use, modification, or disclosure;

(B) only use the whole building energy use data for the purposes of building benchmarking, identifying energy efficiency projects, energy management, and complying with laws or ordinances;

(C) agree to not attempt to determine an individual utility customer’s energy use from the whole building energy use data and not to use the information to contact the subject of the information;

(D) agree to not use the whole building energy use data for a secondary commercial purpose not related to the authorized purpose without first obtaining the customer’s consent as provided for in these rules;
(E) destroy any whole building energy use data that is no longer necessary for the purpose for which it was transferred;

(F) agree not to permit access to the whole building data by anyone that has not agreed to abide by the terms pursuant to which the data was provided by the utility. This includes, but is not limited to, all interns, subcontractors, staff, other workforce members, and consultants; and

(G) agree that any recipient of the whole building data pursuant to this rule does not obtain any right, title or interest in any of the data provided by the utility.