Decision **PROPOSED DECISION OF COMMISSIONER PEEVEY**
(Mailed 3/7/2014)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Consider Smart Grid Technologies Pursuant to Federal Legislation and on the Commission's own Motion to Actively Guide Policy in California's Development of a Smart Grid System.	Rulemaking 08-12-009 (Filed December 18, 2008) Phase III Energy Data Center

DECISION ADOPTING RULES TO PROVIDE ACCESS TO ENERGY USAGE AND USAGE-RELATED DATA WHILE PROTECTING PRIVACY OF PERSONAL DATA

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ATTACHMENT A: DATA REQUEST AND RELEASE PROCESS
ATTACHMENT B: MODEL NON-DISCLOSURE AGREEMENT

DECISION ADOPTING RULES TO PROVIDE ACCESS TO ENERGY USAGE AND USAGE-RELATED DATA WHILE PROTECTING PRIVACY OF PERSONAL DATA

1. Summary

This decision adopts rules that provide access to energy usage and usage-related data to local government entities, researchers, and state and federal agencies when such access is consistent with state law and California Public Utilities Commission (Commission or CPUC) procedures that protect the privacy of consumer data.

This decision does the following:

1. Pursuant to the Public Utilities Act and Commission decisions this decision[1] directs the provision of data containing "covered information," including personal information, to the University of California and other nonprofit educational institutions for research purposes as long as the institutions requesting data conform to the processes and requirements set forth in this decision.
2. Directs the utilities to post, starting 180 days from or the issuance of this decision, and on a quarterly basis thereafter, the total monthly sum and average of customer electricity and natural gas usage by zip code (when the zip code meets specified aggregation standards) and by customer class, as well as the number of customers in the zip code by customer class (i.e. residential, commercial, industrial, and agriculture).
3. Directs utilities to make available to local governments yearly, quarterly, and monthly usage and usage-related data by data request when the data request meets certain requirements on aggregation and anonymization and

[1] "Covered information" is information subject to the rules and statutes concerning privacy. "Covered information" is defined below.

restrictions on use and disclosure. Local government may request data by census block group or other grouping that it finds helpful.

4. Directs utilities, after informing the Commission, to provide energy data to State and federal government entities that need data to fulfill statutory obligations and request such data pursuant to this decision. The provision of energy usage data pertaining to low-income participants in EE programs to the California Department of Community Services and Development is approved.
5. Creates a process whereby entities can request energy usage and usage-related data from utilities and receive action on the request and resolution of disputes over access to data.
6. Directs the formation of an Energy Data Access Committee to advise the utilities on process improvements and best practices related to data access and help mediate disagreements between the utilities and data requesters.

We note that other government agencies, such as the Federal Energy Regulatory Commission, the Energy Information Administration and the California Energy Commission have independent statutory bases for requesting access to energy usage data and nothing in this decision affects or abridges that access to data.

This decision also considers 12 "use cases" that constituted specific requests for energy consumption data and answers each request. As a result of the policies adopted pursuant to the use cases, this decision facilitates access to energy data for local governments, academic researchers, and for government entities needing data to fulfill a statutory requirement.

In conjunction with the transfer of any data, the decision promulgates rules to ensure its protection. For example, in conjunction with a transfer of data

to an academic research institute, the utility and the university must execute a non-disclosure agreement, the terms of which are set forth in Attachment B.

2. Procedural Background

On August 13, 2012, an Assigned Commissioner's Scoping Memo and Ruling[2] amended the scope of this proceeding to seek comments and to schedule workshops pertaining to an Energy Data Center. The California Public Utilities Commission (Commission or CPUC) attached to the scoping memo a briefing paper titled, "Energy Data Center."[3]

The Scoping Memo invited comments on the Energy Data Center proposed in the Briefing Paper and scheduled workshops to explore the many issues that such a proposal would raise. The scope of the proceeding was broad, addressing "any issue pertaining to the creation of an Energy Data Center."[4]

The Commission received opening comments concerning the Briefing Paper on December 17, 2012, from Distributed Energy Consumer Advocates (DECA), Californians for Renewable Energy, Inc., Natural Resources Defense Council (NRDC), San Diego Gas & Electric Company (SDG&E), Southern California Gas Company (SoCalGas), the Local Government Sustainable Energy Coalition (LGSEC), the Office of Ratepayer Advocates (ORA), Pacific Gas and

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[2] Assigned Commissioner's Scoping Memo and Ruling Amending Scope of Proceeding to Seek Comment and to Schedule Workshops on Energy Data Center, November 13, 2012 (Scoping Memo).

[3] "Energy Data Center," a Briefing Paper prepared by Audrey Lee, Ph.D., Energy Advisor to President Michael Peevey, and Marzia Zafar, Interim Director of the Commission's Policy and Planning Division, September 2012 (Briefing Paper). This report remains available at http://www.cpuc.ca.gov/NR/rdonlyres/8B005D2C-9698-4F16-BB2B-D07E707DA676/0/EnergyDataCenterFinal.pdf.

[4] Scoping Memo at 6.

Electric Company (PG&E), Southern California Edison Company (SCE), The Utility Reform Network (TURN), the Electronic Frontier Foundation (EFF), California Center for Sustainable Energy (CCSE), and California Center for Sustainable Communities (CCSC). On December 18, 2012, the Climate Policy Initiative filed late comments, which the Administrative Law Judge (ALJ) authorized via e-mail on January 4, 2013.

The Commission received reply comments on January 7, 2013, from TURN, ORA, SCE, PG&E, CCSC, Sacramento Municipal Utility District, CCSE, California Municipal Utilities Association, SoCalGas and DECA.

On January 14, 2013, an ALJ Ruling denied party status to the California Energy Commission (CEC). The events leading to this denial require explanation. The CEC had previously filed a Motion for Party Status on November 21, 2012. No party responded to the motion. On December 17, 2012, the CEC served comments on parties to this proceeding. On January 3, 2012, via a telephone call, the CEC stated that it had reconsidered and no longer wished to be an active party in the proceeding. Since the first CEC motion had not been addressed through a ruling, the simplest procedural path was to deny the request for party status in light of CEC's change of mind. Since many parties, however, had addressed CEC's December 17, 2012 comments – which, pursuant to rules of practice and procedure, only parties may file – the ALJ Ruling added the CEC Comments, in the form of an attachment to the ruling, into the record of the proceeding to ensure transparency and completeness of the record.

The Commission held extensive workshops on January 15 and January 16, 2013, at the Commission offices in San Francisco to explore a variety of topics raised by parties in comments and replies.

The workshops heard from a wide range of parties that currently face difficulties in acquiring energy usage and billing information for a variety of energy and information needs. Based on the workshops, a question arose as to whether access to usage data could be made available in an efficient and streamlined fashion to those with needs for data while still protecting the privacy of the consumers.

In particular, the workshop suggested that it might prove possible to address requests for data by establishing "use cases" and having the Commission determine whether current laws and regulations permitted the provision of data. This proceeding could then establish rules guiding provision of data, addressing liability issues, and addressing privacy issues that specific requests for data could raise.

In addition, if the proceeding were also able to develop clear definitions of "aggregated data" and "anonymized data," establish rules concerning access to this usage data, and develop model "non-disclosure agreements," then it might prove possible to address many of the most immediate needs for data.

Finally, the workshops, which also explored issues relating to an Energy Data Center, anticipated that these steps might ameliorate the immediate need for a data center.

Following the workshops, an ALJ Ruling reported on the results.[5] The ALJ Use Case Ruling proposed eight use cases, a model non-disclosure agreement, and definitions that could be used to determine whether certain usage

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[5] Administrative Law Judge's Ruling Setting Schedule to Establish "Data Use Cases," Timelines for Provision of Data, and Model Non-Disclosure Agreements, February 27, 2013 (ALJ Use Case Ruling).

information was subject to privacy protections or whether it was sufficiently aggregated so as to prevent re-identification. The ALJ Use Case Ruling endorsed the proposal of several parties to form working groups to propose refinements to use cases, definitions, and non-disclosure agreements. The ALJ Use Case Ruling ordered PG&E, SCE, SoCalGas, and SDG&E to file and serve a report that summarized the results of the collaborative working groups. In addition, the Commission made available the services of an ALJ trained in mediation and meeting facilitation procedures.[6] The ALJ Use Case Ruling set a due date for the working group report and established a cycle of comments and replies.

On April 1, 2013, EFF provided memos to the service list dealing with privacy issues. The first memo was titled "Legal Consideration for Smart Grid Energy Data Sharing." The second was titled "Technical Issues with Anonymization & Aggregation of Detailed Energy Usage Data as Methods for Protecting Customer Privacy."

On May 13, 2013, a Revised Scoping Ruling added the EFF memos to the record in the proceeding, invited comments and replies, and revised the schedule for filing the workshop report on use cases, comments, and replies.[7] The Revised Scoping Ruling set July 10, 2013 as the deadline for the filing and service of a report on the results of the collaborative working groups.

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[6] In this situation, ALJ Jessica Hecht performed the role of meeting facilitator/mediator.

[7] Administrative Law Judge's Ruling Adding Technical Memos to the Record, and Inviting Comments and Replies; Revising Schedule for Filing Use Cases, Comments and Replies, May 13, 2013 (Revised Scoping Ruling).

On June 6, 2013, the California EE Industry Council (CEEIC) filed a motion for party status.[8]

On June 20, 2013, the California Department of Community Services and Development (CSD) filed a motion for party status.[9]

In response to the request of LGSEC and after consulting with the assigned Commissioner, an ALJ Ruling of July 10, 2013, provided a further extension of time in the proceeding.[10] This ALJ Ruling established July 29, 2013 as the due date for opening comments and August 5, 2013, as the due date for reply comments. In addition, at the request of CSD, the ALJ Ruling added a use case to the record that reflected the current data needs of CSD. On July 10, 2013, PG&E, SCE, SoCalGas, and SDG&E filed a Working Group Report addressing many of the outstanding issues in the proceeding.[11]

On July 25, 2013, the Institute for Market Transformation (IMT) filed a Motion for Party Status, which stated the interest of this group in whole-building energy usage information.[12]

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[8] Motion for Party Status of the California Energy Efficiency Industry Council, June 6, 2013. This motion was granted via an e-mail ruling on September 23, 2013.

[9] Motion for Party Status of the Consumer's Services Division, June 19, 2013 (filed June 20, 2013). This motion was granted via an e-mail ruling from the ALJ on September 23, 2013.

[10] Administrative Law Judge's Ruling Revising Schedule for Filing Use Cases, Comments and Replies; Adding Use Case to the Record, and Inviting Comments and Replies, July 10, 2013 (ALJ Ruling).

[11] Working Group Report Pursuant to February 27, 2013 ALJ's Ruling, July 10, 2013 (Working Group Report).

[12] Motion for Party Status of Institute for Market Transformation, July 25, 2013. The ALJ granted this Motion for Party Status on September 23, 2013 via an e-mail to the service list.

On July 29, 2013, DECA, SolarCity, Consumer Federation of California (CFC), EnerNOC, PG&E, SCE, Marin Energy Authority, ORA, SDG&E, SoCalGas, TURN, CCSE, CCSC and the Energy Institute at Haas School of Business at UC Berkeley (Energy Institute) (filing jointly as CCSC/Energy Institute), IMT/NRDC (filing jointly) and LGSEC filed Opening Comments on the Working Group Report. On July 30, 2013, CSD filed Opening Comments on the Working Group Report.

On August 5, 2013, LGSEC, CSD, CCSE, EnerNOC, TURN, SolarCity, PG&E, SCE, EFF, ORA, SoCalGas, DECA, and CFC filed Reply Comments.

On August 16, 2013, EFF filed a motion to supplement the record on the Working Group Report.[13] On August 27, 2013, EFF again filed a motion for a late filing to supplement the record on the Working Group Report along with technical attachments.[14]

Responses to the EFF motion were filed on September 3, 2013[15] and September 11, 2013.[16]

3. Jurisdiction, Relevant Statutes, and Precedents

The deployment of advanced meters in California and the development of a Smart Grid increase the quantity and quality of information on energy

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[13] Motion of Electronic Frontier Foundation to Supplement Record on Working Group Report, August 16, 2013.

[14] Motion of Electronic Frontier Foundation for Late Filing to Supplement Record on Working Group Report, August 27, 2013.

[15] Response of the California Center for Sustainable Communities, the Energy Institute at Haas, the Local Government Sustainable Energy Coalition, and the California Center for Sustainable Energy to Electronic Frontier Foundation Motion, September 3, 2013.

[16] Response of Pacific Gas & Electric Company to Motion for Late Filing of Electronic Frontier Foundation, September 11, 2013.

consumption that is available to utilities operating electric and gas distribution networks.

Concerning legal jurisdiction, the Public Utilities Code grants the Commission broad authority over the public utilities that remain the chief collector of this new information on energy use. In particular, § 701[17] states that:

> The commission may supervise and regulate every public utility in the State and may do all things, whether specifically designated in this part or in addition thereto, which are necessary and convenient in the exercise of such power and jurisdiction.

The Public Utilities Code also provides substantial guidance as to how the Commission should use this authority. Section 701.1 states:

> 701.1(a) The Legislature finds and declares that, in addition to other ratepayer protection objectives, a principal goal of electric and natural gas utilities' resource planning and investment shall be to minimize the cost to society of the reliable energy services that are provided by natural gas and electricity, and to improve the environment and to encourage the diversity of energy sources through improvements in EE and development of renewable energy resources, such as wind, solar, biomass, and geothermal energy.
>
> (b) The Legislature further finds and declares that, in addition to any appropriate investments in energy production, electrical and natural gas utilities should seek to exploit all practicable and cost-effective conservation and improvements in the efficiency of energy use and distribution that offer equivalent or better system reliability, and which are not being exploited by any other entity.[18]

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[17] Unless stated otherwise, all statutory references are to the Cal. Pub. Util. Code.

[18] *See* § 701.1, emphasis added.

Concerning the technologies of the Smart Grid, a focus of this proceeding, California law identifies specific policies to guide the exercise of Commission action. The Public Utilities Code states:

> 8360. It is the policy of the state to modernize the state's electrical transmission and distribution system to maintain safe, reliable, efficient, and secure electrical service, with infrastructure that can meet future growth in demand and achieve all of the following, which together characterize a smart grid:
>
> (c) Deployment and integration of cost-effective distributed resources and generation, including renewable resources.
>
> (d) Development and incorporation of cost-effective demand response, demand-side resources, and energy-efficient resources.

The data generated by the Smart Grid on energy usage, when combined with other usage-related data, if used appropriately, can advance these policies.

California law, however, also sees that the availability and distribution of data generated by advanced meters and the Smart Grid raise issues pertaining to customer privacy. Section 8380 contains a variety of provisions pertaining to the use of smart meter energy consumption data by utilities and by third-parties who contract with utilities:

> 8380(d) An electrical corporation or gas corporation shall use reasonable security procedures and practices to protect a customer's unencrypted electrical or gas consumption data from unauthorized access, destruction, use, modification, or disclosure.[19]

In addition to recognizing a customer's interest in the privacy of energy consumption data, the Public Utilities Code recognizes that energy consumption

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[19] *See* § 8380(d).

data can prove useful to the utility and its operations, and the Public Utilities Code provides a utility with broad authority to use data:

> 8380(e)(1) This section shall not preclude an electrical corporation or gas corporation from using customer aggregate electrical or gas consumption data for analysis, reporting, or program management if all information has been removed regarding the individual identity of a customer.
>
> (2) This section shall not preclude an electrical corporation or gas corporation from disclosing a customer's electrical or gas consumption data to a third party for system, grid, or operational needs, or the implementation of demand response, energy management, or EE programs, provided that, for contracts entered into after January 1, 2011, the utility has required by contract that the third party implement and maintain reasonable security procedures and practices appropriate to the nature of the information, to protect the personal information from unauthorized access, destruction, use, modification, or disclosure, and prohibits the use of the data for a secondary commercial purpose not related to the primary purpose of the contract without the customer's prior consent to that use.[20]

In addition, § 8380 envisions that the information on a customer's consumption would be of use to both the customer and also to third-parties who obtained access to this data with the customer's consent. To balance the competing interests in providing access to data and in protecting privacy, Decision (D.) 11-07-056 adopts a series of privacy rules covering disclosure of information by utilities. These rules clearly state what information is covered by the privacy rules, and what rules apply to information used for a primary purpose and what rules apply to all other information.

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[20] *See* § 8380(e).

Furthermore, § 8380 also recognizes the Commission's authority to require utilities to disclose data:

> 8380(e)(3) This section shall not preclude an electrical corporation or gas corporation from disclosing electrical or gas consumption data as required or permitted under state or federal law or by an order of the commission.

Furthermore, the Commission has the authority to obtain data of policy and economic interest from regulated utilities and, under California law,[21] provide that data to state and federal agencies and researchers when certain conditions are met, we conclude that the Commission has ample authority to order the transfer of the same data from utilities directly to those requesting the information. The Commission will ensure that such a transfer of information to the requestors comports with the privacy and data protection requirements and guidelines set forth in law.

In summary, the information associated with energy consumption produced by regulated utilities as part of their distribution and billing operations is subject to provisions of the California Public Utilities Code and California law, which seek to protect the privacy of customers, to provide information to third-parties with a customer's consent, to enable government use of data, and to furnish researchers and educational institutions which protect privacy with access to data.

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[21] State/government agencies can transfer/share data under the California Information Practices Act and Government Code provisions. See Civ. Code §1798.24(e)-(f) and Government Code §6254.5.

4. Issues before the Commission

The Scoping Memo at the start of this phase of the proceeding identified the major issue for this phase of the proceeding, which is "to determine how the Commission should consider an energy data center."[22]

Through the workshops exploring the issue of whether an Energy Data Center is needed, there evolved preliminary issues concerning what energy data the Commission can make available now, before creating a separate data center. In particular, the preliminary issues include:

1. Whether and how the Commission can, consistent with California law, provide general and open access to consumption data to help improve EE, conservation and demand response, as well as grid reliability and planning, while continuing to protect the privacy interests of consumers.
2. Whether and how the Commission can, consistent with California law, order the release of consumption data to meet the needs identified in specific use cases in order to advance a public interest while continuing to protect the privacy interest of consumers.
3. Whether and in what form the Commission should require non-disclosure agreements between utilities and those receiving data.

Based on the actions ordered in this decision, the Commission can consider with more specificity the benefits an Energy Data Center can provide and what the Commission can do to determine whether these benefits are worth the costs involved.

[22] Scoping Memo at 5.

Finally, the Use Case Ruling refined the scope to entertain proposals "to ensure the timely provision of energy usage data, particularly when personally identifiable information (PII) is removed, to requests of data interested in topics of policy interest to California ratepayers, utilities, and policy makers."[23] The Use Case Ruling also states that:

> A Commission decision that adopts procedures for restricting and/or providing access to energy data by using a "use case" process, would add clarity to the current situation in ways that would help both utilities and requestors of data.[24]

In addition, the Use Case Ruling invited parties to propose refinements to a proposed model non-disclosure agreement.[25]

5. Key Definitions and Categories

Our investigation into issues that arise from providing access to data discovered several dimensions along which data can vary. To a large extent, the chief differences in data involved whether and how data is aggregated. For example, sometimes data is aggregated across time, such a monthly data, and sometimes data is aggregated across territory, such as consumption in a city or zip code.

Moreover, because this is a relatively new area for regulatory policy, terminology is currently in a state of flux. For example, does "aggregated data" refer to data aggregated across time for an individual, or aggregated across a city

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[23] Use Case Ruling at 1.

[24] *Id*. at 13.

[25] *Id*. at 18.

for a small unit of time, or aggregated across a city and measured over a monthly period?

Developing clear and unambiguous definitions for types of energy data is important to constructing a data access regime that will better meet California's data access needs. California law provides very different treatment for data depending on the degree to which that data contains personally identifiable information.[26]

In addition, there is also little consensus among industry participants, privacy experts, or data scientists as to what terms should be used when referring to types of data. To improve transparency and to ensure that proposals are consistent with data access rules, this section develops data definitions and categories to be used in the decision.

5.1. Review of Definitions

The ALJ Rulings, Working Group Report, and memos from EFF have used a number of different terms when referring to types of data, including data containing "personally identifiable information (PII),"[27] "aggregated data," "anonymized data," "personal information," and "covered information."

The February 27, 2013 ALJ Ruling defined "aggregated data" as:

> A group or set of data points containing a sufficient number of points removed of personally-identifiable information where

[26] *See* Public Utilities Code §8380, D.11-07-056, D.11-08-045, and California Information Practices Act, Civ. Code §1798.

[27] PII means data that can be connected to a person, corporation, partnership, limited liability company, firm, or association.

> one cannot reasonably re-identify an individual customer based on, for example, usage, rate class, or location.[28]

The ALJ Ruling also defined "anonymized data" as:

> A data set containing individual sets of information where all identifiable characteristics and information, such as, but not limited to, name, address, account number, or social security number, are removed (or scrubbed) so that one cannot reasonably re-identify an individual customer based on, for example, usage, rate class, or location.[29,30]

In a technical memo prepared by EFF and distributed via a ruling to the service list, EFF interprets "aggregated data" to mean data processed such that there are no individual-level records, for example by computing the sum or the average of a group of individual households' energy usage information.[31] In its memo, EFF notes that the use of the term "aggregated data" has not been consistent throughout this proceeding. EFF argues for a strict definition in which "'aggregated data' would not include the total annual or average annual energy usage for an individual household, precisely because the data pertains to a specific household."[32] Thus, EFF implicitly argues that even though this data is

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[28] For further clarification, aggregate data is customers' energy usage and usage-related data (such as, billing, program participation, or account information) that has been summed, averaged, or otherwise processed such that the result does not contain information at the level of individual customers and an individual customer cannot reasonably be re-identified.

[29] ALJ Ruling (February 27, 2013), at 12.

[30] For further clarification, anonymous data is customers' energy usage and usage-related data (such as, billing, program participation, or account information) at the level of individual customers, scrubbed or altered such that an individual customer cannot reasonably be re-identified.

[31] ALJ Ruling (May 13, 2013), Attachment B, EFF Technical Memo, at 9.

[32] *Id.*

"aggregated" over the year, because the data still pertains to a single household or individual, the aggregation fails to protect the privacy interests of the household or individual.

The EFF memo contrasts this process of "aggregating" data from attempts to "anonymize" data, which EFF defines as "removing certain identifiers from individual records."[33]

The Working Group Report cites these definitions proposed by EFF, but argues that "most of the interested parties as well as Commission staff converged on a somewhat different set of definitions to be used to discuss energy usage data access issues."[34] The Working Group Report argues that the terms "covered customer-specific information" and "personally identifiable information (PII)," are more relevant for the purposes of this proceeding.[35] The Working Group Report then proposes the following definitions:

> "Covered information" is any usage information obtained through the use of the capabilities of Advanced Metering Infrastructure when associated with any information that can reasonably be used to identify an individual, family, household, residence, or non-residential customer, except that covered information does not include usage information from which identifying information has been removed such that an individual, family, household or residence, or nonresidential customer cannot reasonably be identified or re-identified. Covered information, however, does not include information provided to the Commission pursuant to its oversight responsibilities. (California Public Utilities Commission (CPUC) Privacy Rules, § 1(b).)

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[33] *Id.*

[34] Working Group Report at 44.

[35] *Id.* at 44-45.

> "Personal information" means any information that identifies, relates to, describes, or is capable of being associated with, a particular individual, including, but not limited to, his or her name, signature, social security number, physical characteristics or description, address, telephone number, passport number, driver's license or state identification card number, insurance policy number, education, employment, employment history, bank account number, credit card number, debit card number, or any other financial information, medical information, or health insurance information. "Personal information" does not include publicly available information that is lawfully made available to the general public from federal, state, or local government records. (California Civil Code § 1798.80(e).)[36]

The Working Group Report explains that:

> These definitions do not exclude or supplant the "anonymized" and "aggregated" data definitions in the ALJ Ruling. Instead, "anonymized" and "aggregated" data are types of data that may or may not include PII.[37]

We adopt these definitions of "covered information" and "personal information" for the purposes of this decision.

Note that energy usage here refers to both electricity and gas usage.

5.2. Access to Data Should Depend on the Characteristics of the Data Sought

This decision takes the initial steps to determine whether specific types of usage or usage-related data are sufficiently aggregated, anonymized, and stripped of PII so that an individual customer cannot be re-identified. In particular, this decision will review the "use cases" proposed by parties to this

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[36] Working Group Report at 45.

[37] *Id.*

proceeding to determine if the data requested are releasable, within this proceeding, pursuant to California law.

The Public Utilities Code and Commission decisions permit the release of data removed of PII when the data cannot be re-identified. In addition, the release of PII in certain situations is permissible, when certain protections are in place. Finally, for other energy usage or usage-related data that has PII or which can, in conjunction with other available data, be connected with an individual, (and for which the California law does not otherwise specifically permit a release of data without the consent of the individual), this decision requires the consent of the person to whom the usage or usage-related data pertains before the release of that data to a third party.

6. Access to Energy Data

The Privacy Rules adopted in D.11-07-056 and D.11-08-045, and Public Utilities Code § 8380, prohibit utilities from sharing covered information with third-parties without customer consent except in limited cases. Nevertheless, these laws do not prohibit utilities from disclosing information that cannot be linked to a particular customer.

A review of the statutes pertaining to the Smart Grid envision a future in which the increased availability of information concerning energy usage will better enable the Commission and California to promote EE, demand response, greenhouse gas (GHG) reduction and the California economy. In particular, § 8360 recognizes:

> It is the policy of the state to modernize the state's electrical transmission and distribution system to maintain safe, reliable, efficient, and secure electrical service, with infrastructure that can meet future growth in demand and achieve all of the following, which together characterize a smart grid:

a. Increased use of cost-effective digital information and control technology to improve reliability, security, and efficiency of the electric grid.

b. Dynamic optimization of grid operations and resources, including appropriate consideration for asset management and utilization of related grid operations and resources, with cost-effective full cyber security.

c. Deployment and integration of cost-effective distributed resources and generation, including renewable resources.

d. Development and incorporation of cost-effective demand response, demand-side resources, and energy-efficient resources.

e. Deployment of cost-effective smart technologies, including real time, automated, interactive technologies that optimize the physical operation of appliances and consumer devices for metering, communications concerning grid operations and status, and distribution automation.

f. Integration of cost-effective smart appliances and consumer devices.

g. Deployment and integration of cost-effective advanced electricity storage and peak-shaving technologies, including plug-in electric and hybrid electric vehicles, and thermal-storage air-conditioning.[38]

The availability of energy usage and usage-related data can advance these policy goals envisioned for the Smart Grid, as well other goals. In particular, the increased availability of information concerning energy usage will better enable the Commission and California to promote EE, demand response, and the California economy. Data can also enable new and innovative services and

[38] § 8360.

offerings for customers. Thus, there is a public interest in providing access to this data when such access does not raise issues pertaining to customer privacy.

The availability of timely data on a utility or Commission website will permit easy access to data that can shed light on matters related to energy usage. Moreover, when appropriately aggregated or anonymized and stripped of PII, such access can be provided in ways consistent with California law. This releasable data is described in Section 6.2.

6.1. Parties Comments on What Data is Releasable

Technical memos in the record warn that highly granular data with personal information removed can be re-identified by linking "markers" from other publically available data sets to individuals' load profiles. Examples of publically available "side information" include "public traffic schedules, a short period of direct physical observation of the home, mobile phone location records or internet access records."[39] Moreover, through review of the Working Group Report, technical and legal memos supplied by EFF, and the opening and reply comments by various parties, it has become clear that there does not yet exist a set of "best practices" that describe what data is sufficiently aggregated so as to prevent linkage to specific individuals.

EFF's Technical Memo identifies two main security risks associated with releasing aggregated data: 1) privacy attacks using multiple queries on data and 2) privacy attacks using pre-existing information about an individual customer. According to EFF's technical memo, someone seeking to re-identify aggregated data can submit multiple overlapping queries to a database to reveal information

[39] ALJ Ruling (May 13, 2013), Attachment B, EFF Technical Memo, Appendix A, at 21.

that was not revealed by any one query.[40] SolarCity argues that the Commission has not previously clarified what it means to "reasonably identify or re-identify" anonymized data. SolarCity states that the Commission can develop protocols to allow third-party access to energy data while safeguarding customer privacy and expanding the awareness of energy management solutions.[41] In addition, CCSC/Energy Institute argues that without access to certain data, important research may not be adequately completed. Specifically, CCSC/Energy Institute argue that "to accurately measure how households actually respond to this new pricing program, hourly or 15-minute level data must be available."[42] CCSC/Energy Institute argue that access to more granular data "serves a crucial public purpose."[43]

PG&E, in opening comments, "recommends that the Commission move forward with an interim third-party data access program that allows for disclosure of non-customer-specific, 'anonymized' and 'aggregated' monthly energy consumption data, aggregated at a high enough level, *e.g.*, zip code, to reasonably prevent 're-identification.'"[44] PG&E argues that such a program "could be implemented by the utilities using a common format while the remaining unresolved issues in this proceeding are addressed and resolved."[45]

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[40] ALJ Ruling (May 13, 2013), Attachment B, EFF Technical Memo, at 9.

[41] SolarCity Opening Comments at 3.

[42] CCSC/Energy Institute Opening Comments at 7 (pages unnumbered).

[43] *Id*. at 2 (pages unnumbered).

[44] PG&E Opening Comments at 14.

[45] *Id.*

SCE argues that "the main achievement of the Working Group Report is the straw person proposal by the Investor Owned Utilities (IOUs) to field and process common requests for aggregated data in a standardized way."[46] On this particular issue, SCE argues that its current program is effective "at fulfilling requests for aggregated usage data."[47]

Concerning data on gas consumption, SoCalGas states that its "policy is to provide aggregated and anonymized energy usage data to third-parties, using the 15/15 Rule,[48] and pursuant to a non-disclosure agreement."[49]

Concerning the release of aggregate data needed for compliance with EE programs implemented by local governments, ORA states:

> The streamlined release of aggregated or anonymized data protective of consumer privacy is critical to fulfilling local governments' successful implementation of Climate Action Plans and other EE programs.[50]

CCSE stated in their comments that the most appropriate level of aggregation is the Census Block, the smallest unit of geography captured in U.S. Census data. CCSE goes on to conclude that "aggregating to the Census

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[46] SCE Opening Comments at 2.

[47] *Id.* at. 3.

[48] The Commission has not adopted a "15/15 Rule" for the sharing of customer usage information contemplated in this and related proceedings. The "15/15 Rule" was adopted in D.97-10-031 relating to access to customer information during the implementation of direct access. Under a 15/15 rule, a data set is considered anonymized if it consists of at least 15 members, and no one member accounts for more than 15% of the quantity measured.

[49] SoCalGas Opening Comments at 1.

[50] ORA Opening Comments at 5.

Block level also provides a geographic unit that is consistent over time."[51] Unlike other spatial boundaries, such as zip codes, Census units provide a high degree of geographic continuity. Tracts are designed to be relatively permanent over time so that trends can be analyzed decade to decade. When population changes warrant a change, the splitting or merging of tracts is documented. This geographic consistency is a crucial element of time series analysis. Finally, the granular level of data resolution provided by Census Blocks allows researchers and forecasters to better understand the impact of California's microclimates on energy consumption and technology performance. This is particularly important in rural areas where zip codes can be expansive and encompass areas of significant geographic variation.[52] CCSE points out that "only about 12% of census blocks in San Diego County contain fewer than 5 households."[53]

6.2. Discussion: Certain Data should be Available Publicly and Published because the Data Cannot be Linked to an Individual

The Commission finds that certain high level data (aggregated as described below) will prevent the identification of an individual customer, and therefore is not subject to disclosure restrictions. To ensure the wide availability of certain types of energy data that is both releasable and of interest to the public, the Commission directs the utilities to make publically available energy data that meets the aggregation standard set forth below without requiring an

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[51] CCSE Comments in response to Assigned Commissioner's Scoping Memo and Ruling Amending Scope of Proceeding to Seek Comments and to Schedule Workshops on Energy Data Center filed December 17, 2012 at 17.

[52] *Id*. at 16-17.

[53] *Id*. at 17.

Non-Disclosure Agreement (NDA), and to post this data on a publically available portion of their website. Specifically, the utilities should post, starting on 180 days from the issuance of this decision and on a quarterly basis thereafter, the total monthly sum and average of customer electricity and natural gas usage by zip code (when the zip code meets the aggregation standard specified below), as well as the number of individual customers in the zip code. The data shall be published for each customer class (residential, commercial, agricultural, and industrial).

The Commission adopts the following aggregation standards in order to ensure that the released data is sufficiently aggregated to prevent the identification of data on individuals. For purposes of this requirement only, utilities shall use the following guidelines in publishing the required data (for each zip code: the summed monthly usage, average monthly usage, and number of customers each month):

1. For residential customers, the zip code must have 100 or more residential customers. For zip codes that lack 100 residential customers, the utility is directed to aggregate the data with a bordering zip code until the aggregation includes at least 100 residential customers.
2. For commercial or agricultural customers, the zip code must have 15 or more commercial or agricultural customers, with no single account constituting more than 15% of the total consumption in any month. For zip codes that do not meet this standard, the utility is directed to aggregate the consumption with a bordering zip code until the area contains at least 15 commercial or agricultural customers, with no single account constituting more than 15% of the total consumption in any month for the combined zip codes.
3. For industrial customers, the zip code must have 15 or more industrial customers, with no single account

constituting more than 15% of the total consumption. For zip codes that do not meet this standard, the utility is directed to aggregate the consumption with a bordering zip code until the area contains at least 15 industrial customers, with no single account accounting for more than 15% of the total consumption for the combined zip codes.

4. The data should be made available in a common data format(s), developed by the utilities in consultation with Commission Staff. At least one format must be machine readable.
5. The first posting of this information shall be no later than 180 days after adoption of this decision, and shall include data for the prior 12 months. Subsequent data updates of the prior 12 months shall be posted on a calendar quarterly basis by the 15th day of the following quarter.
6. The Commission will monitor the progress of this effort and may, at a future date, re-evaluate these guidelines. The Energy Data Access Committee, described below, may review and recommend to the Commission revisions to these guidelines.

We adopt this approach because the Commission's experience with data, current utility practice (as described below), and the record in this proceeding convinces us that the release of data in this form – aggregated over zip code with multiple customers and averaged over a monthly period – prevents the re-identification of the data with individuals or individual commercial firms, agricultural entities or industrial enterprises. For this reason, release of information in this form is consistent with California law.

The Commission also encourages the Energy Data Access Committee (EDAC) (discussed below) to review periodically the aggregation standards adopted in this section and recommend the publication of different geographical boundaries if customer privacy can be maintained.

The Commission also recognizes the limitations of releasing data by zip code, as described by comments from CCSE, yet understands that utilities may not have the capabilities at the moment to aggregate data by other geographical boundaries. Therefore, the Commission continues to see the importance of exploring the value of a dedicated energy data center in the future to increase access to data while developing reasonable protections on customer privacy.

7. Use Cases

Much of the record in this proceeding addressed specific requests for information, termed "use cases." This decision has sought to address the types of requests for usage and usage-related data of particular interest to the parties in this proceeding. For the "use cases" of special interest to parties, this decision defines clearly the types of requests included in each use case and decides whether and how to provide access to that data.

We now turn to address individually each of the use cases proposed in this proceeding.

7.1. Use Case 1: Local Governments Seek Access Covered Data and Non-Covered Data

The February 27, 2013 ALJ Ruling describes Use Case 1 as "local governments seeking access to aggregate data for use in creating legislatively required Climate Action Plans and [for] implementation of EE programs."[54]

7.1.1. Working Group Report on Use Case 1

The Working Group Report states that LGSEC submitted additional comments, seeking the following data under Use Case 1:

[54] ALJ Ruling (February 27, 2013) at 14.

1. Aggregated data that illustrate the status of progress toward adopted energy and GHG reduction goals, e.g., total monthly residential energy use at the block group level;
2. Aggregated data that illustrate the outcomes of a given energy program, e.g., total monthly electricity savings from the Energy Upgrade CA program at the community or sub-community level;
3. Granular, anonymized data at the address level, on a monthly usage basis, that provide insight into how energy use changes as properties participate in programs, and identify unmet needs in order to plan for future programs.[55]

The Working Group Report states that LGSEC and other participants discussed how existing utility programs meet many of local governments' data requirements, including PG&E's 'Green Communities' program and the utilities' 'local government partnership' EE programs.[56]

The Report also claims that the Working Group:

> …understood that, with the exception of building benchmarking programs discussed below, the type of energy usage data requested by local governments for climate planning and EE programs is not PII data, but instead more likely monthly energy consumption data that is adequately "anonymized" or aggregated at higher levels, such as zip code, Census tract, or customer class levels...[57]

Regarding the transmission of this aggregate data, the Working Group Report states:

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[55] Working Group Report, Appendix A at 2.

[56] Working Group Report at 59.

[57] *Id.*

> To the extent that the data is proprietary to the utilities or other third-parties, or is competitively-sensitive (e.g. historical or forecast loads used for utility procurement), a standard non-disclosure agreement can be used to protect the data from unauthorized disclosure.[58]

Finally, regarding access to granular data, and specifically building benchmarking data, the Working Group Report argues that the following aggregation limits are necessary to strike "an acceptable balance between customer privacy and data access":

> Data is aggregated at a level of 20 or more tenants and otherwise complies with the so-called "15/15" rule used under the CPUC's Direct Access tariffs. In addition, any building benchmarking data that is published or made public under such building benchmarking programs would be required to use data "blurring" or "processing" techniques to avoid direct or indirect disclosure of customer PII.[59]

The Working Group Report contained additional information submitted by CEC on Use Case 1. The CEC seeks the following data to "answer basic questions about the distribution of buildings sizes and energy use within particular climate zones or areas of construction"[60]:

> All data that is descriptive of the building, its energy use, and the efforts that have been made in outreach to improve its energy performance. This data should be released into the requesting agency's SEED database under an NDA [non-disclosure agreement] that clearly states the parameters that are required for any release of aggregated data.[61]

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[58] *Id.* at 60.

[59] *Id.*

[60] Working Group Report, Appendix A, at 12.

[61] *Id.*

The Working Group Report did not comment on the additional information supplied by CEC.

7.1.2. Comments of Parties on Working Group Report on Use Case 1

In comments, LGSEC agrees with the Working Group Report that "in most instances, local governments need only monthly data."[62] However LGSEC stresses that there are instances where more granular data would be useful. In addition to other types of information, local governments would benefit from access to "aggregated whole building usage for building owners for compliance with energy benchmarking programs/ordinances" which would "allow for policy analysis to support benchmarking ordinances and compliance."[63]

LGSEC also argues that the definition of "primary purpose" adopted in D.11-07-056 is too narrow," and "recommends that the definition of primary purpose include data related to local government activity undertaken in response to State or federal legislation or General Plan requirements, or in response to local ordinances and policies."[64] LGSEC argues that if primary purposes were defined more broadly, local governments would be able to more readily access data, better enabling "local government climate action plans, sustainability plans, benchmarking ordinances, and related policies [that] directly support California's AB 32, AB 758, SB 375, and AB 1103."[65].

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[62] LGSEC Opening Comments at 11.

[63] *Id.* at 12.

[64] *Id.* at 4.

[65] *Id*. at 3.

ORA agrees with LGSEC that "the streamlined release of aggregated or anonymized data protective of consumer privacy is critical to fulfilling local governments' successful implementation of Climate Action Plans and other EE programs."[66]

However, ORA does not agree that local government's requests for covered information to carry out voluntary programs qualify as "primary purpose":

> To the extent that participation in EE programs, Climate Action Plans, and other programs included in Use Case 1 is voluntary under state and federal law, local government's requests for PII fall outside the purview of the California Public Utilities Code § 8380(e)(3) exception and the Commission's Privacy Rules.[67]

Parties did not comment on the additional information supplied by CEC.

7.1.3. Discussion and Conclusion for Use Case 1

Local government entities, like other third-parties, may obtain monthly energy usage data by zip code from utilities' websites. Access to this data will enable cities to a certain extent to complete their climate action plans and promote general policies of EE, which are in the interest of Californians and customers.

Concerning local governments' needs for more granular data, California law does not prohibit utilities or the Commission from disclosing information that cannot reasonably be linked to a particular customer. Since such data is extremely useful in assessing government energy programs, the Commission

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[66] ORA Opening Comments at 5.

[67] *Id.* at 6.

directs utilities to fulfill requests by local, city, and county governments and regional governmental entities for aggregated or anonymized energy data to fulfill public purposes under the requirements outlined here.

To facilitate the release of such data, it is necessary to determine practices that ensure that the form of the information released does not identify any individual. In addition to the obvious steps that seek to ensure that the release of data does not contain PII, such as customer name or address, we find that some grouping of data across time, individuals and geography can further protect privacy. We provide separate requirements for aggregated data and for anonymized data.

Requests for data may be delineated by a variety of characteristics, including geography - but the resulting grouping of customers does not need to be contained within a single boundary or contiguous area, as long as the requesting local government provides the utility with the necessary locational information (e.g. account addresses) to extract the requested data.

It is also clear from the record that best practices for aggregating and anonymizing data need to be developed over time. Just as importantly, privacy risks must be carefully managed. Therefore, the Commission also adopts Terms of Services to apply to this release of aggregated and anonymized data for local governments (Section 8).

The Commission directs utilities to make available to local governments yearly, quarterly, and monthly,[68] aggregated and anonymized data. Because this

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[68] Currently, the most granular time interval for residential accounts is hourly. The most granular time interval for commercial and industrial accounts is quarter-hourly.

Footnote continued on next page

information is useful for assessing GHG reduction, a state goal, the Commission orders the utilities to provide such information. Specifically, we direct the utilities to make available aggregated and anonymized usage data at yearly, quarterly or monthly level that meets the following requirements:

1. For residential, commercial, or agricultural customers, the request must have 15 or more customers, with no single account accounting for more than 20% of the total consumption in any interval requested and the data must not contain personal identifying information pertaining to any account. For requests that do not meet this standard, the utility is directed to work with the requestor to include additional customers until the requirement is met. For example, if a local government provided the list of addresses in a census block group to a utility and requested the average monthly consumption for residential customers, then, if the data were removed of PII and there were more than 15 customers in the census block group, the release of that data to the local government would not violate state privacy statutes.
2. For industrial customers, the request must have five or more industrial customers, with no single account accounting for more than 25% of the total consumption in any interval requested equal to or greater than a month and the requested data must not contain identifying information pertaining to any account. For requests that do not meet this standard, the utility is directed to work with the requestor to include additional customers until the requirement is met.
3. Requests made pursuant to this section shall be done in accordance with the Data Request and Release Process adopted in Section 8 below, including a statement

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Agricultural customers may be metered hourly or quarter-hourly depending on the customer.

identifying the need and purpose for obtaining this information.

4. Multiple, overlapping data requests from the same requestor are not permitted.

The Commission directs utilities to make available to local governments anonymized data that meets the following requirements:

1. The data set must be homogenous in terms of customer class. Mixing of residential, commercial, industrial, or agriculture customers in the same data set is not permitted.
2. If solar customers represent a portion of the data set, data associated with customers with solar systems must be removed from the data set.
3. For yearly, quarterly, and monthly data:
   a. The request must have 100 or more customers, with no single account accounting for more than 10% of the total consumption in any requested interval equal to or greater than a month and the data must not contain personal identifying information pertaining to any account. For requests that do not meet this standard, the utility is directed to work with the requestor to include additional customers until the requirement is met.
4. Each customer's time series data must be assigned a random identification number and the listing order of the data must be randomized.
5. Requests made pursuant to this section shall be done in accordance with the Data Request and Release Process adopted in Section 8 below, including a statement identifying the need and purpose for obtaining this information.
6. Overlapping data requests from the same requestor are not permitted.

Local governments are also encouraged to petition the Commission if covered information is required as a result of specific state or federal statutes.

Other energy usage data, even if required by local government, was not clearly requested in the record of this proceeding. For this reason, requests for specific data along with a clear identification of specific state or federal statutes which require this data is the path that local governments should pursue going forward.

Concerning the release of covered information to local governments for purposes of building benchmarking, we note that the Privacy Rules adopted in D.11-07-056 do not permit utilities to disclose covered information without customer consent to third-parties except in certain cases, such as when the data will be used for qualifying "primary purposes," most notably, "to provide services as required by state or federal law."[69] A local government that seeks such information must show that it is seeking Covered Information as necessary to comply with state or federal law. Alternatively, local government can seek individual customer consent for sharing of customer data or petition the Commission for an order directing the release of this information. At this point in the proceeding, there is not sufficient showing that Federal or State law requires local governments to perform building benchmarking services. Finally, we note that Assembly Bill (AB) 1103, the statute creating the building benchmarking program, is part of the resource code and under the administration of the CEC.

[69] CPUC Privacy Rules, D.11-07-056, Attachment D, 1(c)(3).

7.2. Use Cases 2 and 3: Research Institutions Seeking Access to Energy Usage and Usage-Related Data to Evaluate Energy Policies

Use Case 2 is described in the ALJ Ruling as "research institutions seeking monthly billing data, which may be PII, to evaluate energy policies, including EE policies, and publishing results in aggregate, non-PII form."[70]

Use Case 3 is described in the ALJ Ruling as:

> Research institutions seeking anonymous, individual hourly energy consumption data with other energy-related characteristics to evaluate energy policies, including EE programs and rate design, and publishing results as statistical coefficients. Thus, the data could be PII if it contained sufficient characteristics to permit reverse engineering, but the published results that describe the influence of energy-related attributes on consumption, would not be PII.[71]

7.2.1. Working Group Report on Use Cases 2 and 3

The Working Group Report includes additional information provided by CCSC on Use Case 2. CCSC seeks access to "monthly electricity consumption data at the individual customer account level" in order to "identify current patterns and drivers of electricity consumption, to target and evaluate EE investments, and to help the State of California achieve its energy and environmental policy objectives." CCSC also calls for a flexible approach to data provision that serves the public interest, stating that "data needs will vary immensely by research project across all data parameters, including temporal resolution (e.g., annual, monthly, interval), geographic resolution (e.g. ZIP,

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[70] ALJ Ruling (February 27, 2013) at 14.

[71] *Id*.

ZIP+4, census block, individual account), and whether identification by tariff or customer class is required."[72]

Concerning Use Case 2, the Working Group Report supports release of aggregated monthly energy usage data at the zip code, zip code+4, or Census Tract level, under an appropriate non-disclosure agreement.

The Working Group Report does not address Use Case 3, which deals with disclosure of anonymous data to research institutions.

7.2.2. Comments of Parties on Working Group Report on Use Cases 2 and 3

CCSE requests in comments that "specific guidance be provided on the types of entities and projects that are eligible" for access to data and argues that eligibility should include at a minimum, "researchers associated with an accredited institute of higher education, a 501(c)(3) or (c)(4) nonprofit organization, a ratepayer advocacy group, or an industry group working on policy and advocacy initiatives."[73]

Regarding Use Case 2, SDG&E states that it:

> … is currently working with CCSC to potentially share consumption data for purposes that would be mutually beneficial to both SDG&E and CCSC, while not running afoul of current statutory rules. While these discussions are still in their preliminary stages, there is hope an agreement can bereached. Therefore, SDG&E asks that the Commission not order the disclosure of this data without giving the SDG&E and CCSC an opportunity to come to an agreement on their own.[74]

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[72] Working Group Report, Appendix A at 16.

[73] CCSE Opening Comments at 5-6.

[74] SDG&E Opening Comments at 5.

SCE, however, opposes the release of information to research institutions, arguing that:

> … the record thus far has been insufficient to establish that a specific Commission order to disclose customer-specific data without customer consent is warranted for any use case. [75]

CCSC/Energy Institute notes that currently:

> Under existing data access mechanisms, researchers can be given access to granular energy data provided a research project satisfies "primary purpose" criteria and is conducted under contract with an IOU, the CPUC, or as part of a CPUC-authorized program conducted by a governmental entity under the supervision of the CPUC. This is noted in D.11-07-056 (refer to Section III-D of the Working Group Report). Such access serves a crucial public purpose: analysis of patterns of energy use is necessary for targeting and evaluating energy and related policy. Yet access to granular data through this mechanism is granted inconsistently across the state by different utilities.[76]

To overcome inconsistent treatment by different utilities, CCSC/Energy Institute recommend that the Commission adopt "more robust guidelines" concerning what types of research are in the public interest. In particular, CCSC/Energy Institute "recommend that the CPUC's primary-purpose language be amended to include a broader definition of energy public policy research, and to state that this research can be done by university-affiliated researchers not under contract with any entity to do so."[77]

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[75] SCE Opening Comments at 7.

[76] CCSC/Energy Institute Opening Comments at 2 (unnumbered filing).

[77] *Id.*

7.2.3. Discussion and Conclusion for Use Cases 2 and 3

The analysis of patterns of energy use serves an integral role in formulating effective energy policy. As the review of statutes above makes clear, California's energy policy consists of a portfolio of programs on the demand and the supply side that require data to inform program assessments. These include, but are not limited to, measurement of the efficacy of energy conservation and energy usage, the measurement of the efficacy of demand response or EE programs, the modeling of customers' quantitative response to changes in price and technology, and the assessment of the aggregate effects of energy consumption on GHG emissions.

The Commission has broad authority to obtain information from utilities to assess the effectiveness and efficiency of energy programs. In addition, research into the effectiveness and efficiency of these programs is critical if California wishes to maintain its status as a national leader in these energy program areas. Quantitative research on energy programs, in turn, requires consistent access to high quality energy data. These are interests of both the state and consumers.

Moreover, the comments of CCSC/Energy Institute in this proceeding make clear that access to the necessary data by research universities is currently inconsistent across utilities. Some utilities provide the data readily, but the very same data can be difficult to obtain from other utilities. CCSC/Energy Institute comments that "access to granular data ... is granted inconsistently across the state by different utilities," and that "without clear criteria, individual IOUs may

disagree over the benefits of individual projects."[78] Making data more widely available to researchers in non-profit educational institutions under strict eligibility and confidentiality rules will permit better analyses of California energy policies where the data is used by various researchers in wide range of projects relevant to and advantageous to consumers and ratepayers. However, in order to ensure that consumer privacy is protected in this process, we look to the protocols set forth in the Public Utilities Code and the California Information Practices Act.[79]

Pursuant to the Public Utilities Code and the California Information Practices Act, it is reasonable to require that researchers possess all of the following qualifications in order to be eligible for access to covered energy data:

1. The researcher is affiliated with a non-profit college or university accredited by a national or regional accrediting agency and the accrediting agency is formally recognized by the U.S. Secretary of Education.
2. The researcher is a faculty member or is sponsored by a faculty member and the researcher and the sponsoring faculty members are responsible for carrying out the terms of the data release and a non-disclosure agreement.

Concerning the specific research, to receive covered data, the research project and the researcher should fulfill the following conditions:

1. The researcher should demonstrate that the proposed research will provide information that advances the

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[78] *Id*. Note also the very different comments of SDG&E and SCE on this matter.

[79] We note that the Information Practices Act applies to state agencies and not the utilities. In general, it governs "personal information." Because it has a robust privacy protocol in place, we will use the protocol set forth in the Act as a guiding process in order to ensure that consumers' privacy is protected. *See* Civil Code § 1798 et. al.

understanding of California energy use and conservation. Research may include, but is not limited to, analysis of the efficacy of EE program, or demand response programs, or the quantification of the response of electricity consumers to different energy prices or pricing structures. In addition, research pertaining to GHG emissions, the integration of renewable energy supplies into the electric grid, and the analysis of grid operations are also topics vested with a public interest and will advance the understanding of California energy use and conservation. In addition to these research topics, research tied to any energy policy identified in the Public Utilities Code as serving a public purpose is also appropriate.

2. Pursuant to the California Information Practices Act, University of California researchers or researchers associated with non-profit education's institutions that seek data containing PII must demonstrate compliance with the provisions of Civil Code § 1798.24(t)(1).
3. The project must be certified to be in compliance with the federal government's "Common Rule" for the protection of human subjects by an "Institutional Review Board," as defined in the National Science Foundation's Code of Federal Regulations 45CFR690: Federal Policy for the Protection of Human Subjects. [For research undertaken by members of the University of California, researchers must demonstrate approval of the project by the CPHS for the CHHSA or an institutional review board, as authorized in paragraphs (4) and (5) of Civil Code § 1798.24(t).] Specifically, the review board must accomplish the specific tasks identified in Civil Code § 1798.24(t)(2).

When responding to such requests for covered information, utilities must approve requests for data that meet the conditions outlined above.

In addition, to ensure protection of privacy, qualified researchers seeking covered information will be required to sign a NDA with the utility prior to receiving covered information that makes clear that recipients of the data will

comply with the provisions set forth in this decision and accept liability for data breaches or prohibited disclosures.

This approach is consistent with § 6(c)(4) of the Privacy Rules, which absolves utilities of liability arising from disclosures made at the order of the Commission: "Nothing in this section shall be construed to impose any liability on an electrical corporation relating to disclosures of information by a third party when i) the Commission orders the provision of covered data to a third party."[80]

The Commission clarifies that energy data provided to researchers under the requirements in this section is not limited to energy usage data and may include usage-related information.

Researchers eligible to receive data under this use case should use the Data Request and Release Process outlined in Section 8 to request data. The utility should provide the Commission with a description of the information disclosed and "the name, title, and business address of the researcher and institution to whom the disclosure was made"[81] through the process described in Section 8.

Finally, researchers affiliated with other institutions such as non-profit organizations and advocacy groups may desire access to data containing covered information or their own purposes. At this time, the Commission declines to order utilities to provide access to covered information to these entities.

In summary, the provision of data authorized in this section applies to research conducted at the University of California and at accredited, non-profit universities compliant with human research protocols.

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[80] CPUC Privacy Rules, D.11-07-056, Attachment D, 6(c)(4).

[81] California Civil Code § 1798.25.

7.3. Use Case 4: Government Entities Seeking Access to Covered Data to Evaluate Legislatively Mandated Programs

The ALJ Ruling described Use Case 4 as follows:

> Other governmental entities, like the CEC's Energy Upgrade California Program, seeking EE program participation data by customer identification number in order to cross-reference this data with other program data, and thereby evaluate government sponsored, legislatively mandated programs, while publishing results in aggregate, non-PII form. Thus, this data is highly granular, but non-PII, while [it] may be 'reversed engineered," … the published results would be non-PII.[82]

7.3.1. Working Group Report on Use Case 4

The Working Group Report indicates that the CEC submitted additional information requesting that data be made available for state buildings in order to meet the targets identified in Executive Order B 18-12, which called on the state to improve EE in its 8,000 plus buildings, and to serve as a "lead by example" model for local governments, private businesses, and homes.[83] Data types requested include billing, rebate and permits, monthly consumption, 15 minute consumption, and energy savings.[84]

The CEC states much of the usage and usage-related data collected under the current regime is not standardized and difficult to combine upstream. The CEC requested that IOUs "develop a standardized open source, energy project database" for state building data that would be made accessible to State

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[82] ALJ Ruling (February 27, 2013) at 14.

[83] Working Group Report, Appendix A at 18.

[84] *Id.* at 19.

employees through login and password. State building data would ultimately be made available to the public in some form.[85]

The Working Group Report describes additional information submitted by the CEC requesting access to data pertaining to non-state-owned or leased buildings:

> Federal and state agencies and local governments are tasked with formulating policies to reach EE and greenhouse gas emissions goals without having a rich set of energy use data to base their policies on. For example, knowing the average consumption of a type of building is important, but knowing the median and standard deviation of energy use per square foot of small retail buildings built between 1970 and 1980 in the central valley is much more useful. This use case sets up the parameters by which governmental agencies can be assured access to both energy use data and the PII associated with it in a way that indemnifies the utilities supplying the data.[86]

The Working Group Report states that "granting state government agencies such broad access to customer-specific energy usage data is premature, unnecessary and possibly in violation of the California Information Practices Act."[87] The Working Group Report concludes that such information

> Should be provided to government agencies such as the Energy Commission on an anonymized, aggregated non-PII basis, and subject to appropriate non-disclosure and cost recovery terms similar to those applicable to energy usage data made available to researchers…[88]

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[85] *Id.*

[86] Working Group Report at 64.

[87] Working Group Report at 65.

[88] *Id.* at 66.

The Working Group Report did not address CEC's request for more centralized access to state building data.

7.3.2. Comments of Parties on Working Group Report on Use Case 4

In comments, PG&E argues that "the balance between public benefit and customer privacy is not easy to strike even in the 'building benchmarking' area."[89] PG&E states that:

> PG&E recommends that the Commission schedule a further period of time for a subset of the working group participants to discuss and hopefully arrive at a practical and inexpensive approach for building benchmarking that appropriately balances customer privacy and public benefit.[90]

SCE also takes a skeptical approach to providing data on buildings to the CEC.[91] Similarly, SDG&E argues that this use case "runs afoul of Public Utilities Code 8380 – as the requested information is for a secondary purpose which would require customer consent before providing PII."[92]

ORA states that it recommends treatment of this information as "PII, and denying PII requests unless release of the information to the requesting agency is required under state or federal law.[93] TURN, however, supports the release of "anonymized, aggregated non-PII to government agencies."[94]

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[89] PG&E Opening Comments at 8.

[90] *Id.* at 9.

[91] SCE Opening Comments at 5.

[92] SDG&E Opening Comments at 5.

[93] ORA Opening Comments at 2.

[94] TURN Opening Comments at 5.

7.3.3. Discussion and Conclusion

Concerning energy data on state buildings, the state, as a customer, can request electric usage data on buildings served by a commercial utility. In particular, the Commission has adopted rules that expedite the transfer of information both to the customer and to third-parties.[95] If utilities fail to provide any customer with the usage data requested, the customer, including the State of California, can seek enforcement of the rules the require the provision of this data to the customer through this Commission's complaint processes.

To the extent that these buildings used by the state are privately owned and the state is not the customer of record, the Commission will cooperate with CEC efforts to gather the data needed to implement Executive Order B 18-12.

Concerning access to energy usage data on buildings in California, we note that the Warren-Alquist Act and other laws give the CEC authority to set State energy policy, forecast electricity and natural gas demand, and implement energy-related programs, such as Proposition 39: California Clean Energy Jobs Act. These laws, including Public Resources Code §§ 25216 and 25216.5, vest the CEC with broad authority to collect from all available sources information on all forms of energy supply, demand, conservation, public safety, research, and related subjects – including EE and consumption data. Moreover, as the Working Group Report acknowledges, while the Information Practices Act imposes restrictions on collecting and handling personal data under some circumstances, nothing in the act prohibits the CEC from exercising its statutory authority to collect customer or other data to achieve its statutory obligations.

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[95] *See* D.13-09-025.

Concerning the issues of privacy, this Commission is aware that privacy issues raised in this proceeding are similar to issues that the CEC has addressed, and is addressing, in implementing the Non-residential Building Energy Use Disclosure Program (Public Resources Code, § 25402.10; Cal. Code of Regs., tit. 20, § 1680 et seq.). The Commission recognizes that implementation of that or any other program – including handling privacy concerns as appropriate to carry out legislative intent – is the responsibility of the CEC.

Subject to the discussion in the immediately preceding paragraphs, and, more generally, pursuant to Public Utilities Code Section 8380(e), the Commission orders utilities to provide data to state and federal agencies, upon request, to perform express or implied statutory duties. State and federal agency use of the data remains subject to the protections set forth by applicable California laws/and or federal laws that govern a governmental agency's collection, maintenance, and dissemination of information that identifies or describes an individual.[96] Agencies should use the Data Request and Release Process outlined in Section 8. The utility receiving the request should provide the Commission with a description of the information disclosed and the name, title, and business address of the person or agency to whom the disclosure was made through the process described in Section 8. The Commission also clarifies that energy data provided to state and federal agencies pursuant to this decision is not limited to energy usage data and may include usage-related information. A separate NDA is not required.

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[96] Including, but not limited to, California Information Practices Act, Civil Code §§ 1798 et. al, and Federal Privacy Act 1974, 5 U.S.C. 552a. These statutes set forth guidelines for government agencies to protect personal information.

7.4. Use Case 5: On-bill Energy Efficiency (EE) Financing

The ALJ Ruling described Use Case 5 as follows:

> Environmental nongovernmental organizations, like the NRDC, requesting PII customer repayment history and energy consumption pre and post-retrofit for EE, to support general financial decision making on energy-efficiency investments through on-bill financing, and produce results that provide aggregate, non-PII findings that link energy usage to other relevant characteristics (e.g. geography, building characteristics, customer financial characteristics, and financing vehicle). In this case, the data is definitely PII, but the results – a decision whether a particular area, type of building, type of customer, or type of financing is viable – is non-PII.[97]

7.4.1. Working Group Report on Use Case 5

The Working Group report linked Use Case 5 to two parties, NRDC and Brighter Planet Technology Services/Faraday (Faraday).[98] The Working Group Report notes that these parties provided additional information on this use case through the course of the Working Group Sessions:

> NRDC and Faraday addressed the part of use case 5 that involves requests by third-parties for micro data containing financial and billing information for purposes of planning and conducting "on-bill financing" programs for EE retrofits or other customer-directed energy management programs. The primary benefit of making customer information available to third-parties is that the third-parties, including financial institutions, would be better able to market and solicit utility customers to enter into lending arrangements with the third-parties under on-bill financing programs.[99]

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[97] ALJ Ruling (February 27, 2013) at 15.

[98] Working Group Report at 68.

[99] *Id*.

The Working Group Report provided a discussion of this use case and argued that utility customers "have a broad expectation that the privacy of their finances and billing records with their local utility will be strictly protected."[100]

The Working Group Report concludes:

> The Working Group recommends that the CPUC continue to restrict access by commercial entities to customer financial, billing, and credit and collection information, unless the customer has expressly authorized the access in accordance with CPUC precedents and utility tariffs implementing those precedents.[101]

7.4.2. Comments of Parties on Working Group Report on Use Case 5

In Reply Comments pertaining to the Working Group Report's discussion of Use Case 5, EFF argues that "commercial" use cases such as these "are inconsistent with P.U.C. § 8380" if they bypass customer consent. [102]

PG&E states that it "agrees with the legal, policy and technical framework provided by the Electronic Frontier Foundation."[103]

ORA "strongly opposes the adoption of Use Case 5," arguing that "it is incumbent upon [those seeking the data] to request individual consent from the customer."[104]

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[100] *Id.*

[101] *Id*. at 69.

[102] EFF Reply Comments at 5.

[103] PG&E Opening Comments at 1.

[104] ORA Opening Comments at 17.

TURN similarly states that "privacy concerns should trump other possible benefits in the absence of procedures to fully anonymize and aggregate customer information to ensure PII is not being revealed."[105]

CCSE recommends "specific guidance be provided on the types of entities and projects that are eligible to access energy usage data" and asks that it be limited to "an accredited institute of higher education, a 501(c)(3) or (c)(4) nonprofit organization, a ratepayer advocacy group or an industry group working on policy and advocacy initiatives."[106]

7.4.3. Discussion and Conclusion

We find that the record in this proceeding concerning this use case is inadequate to support this request for data.

It is clear to us that providing access to information for financial purposes related to a specific energy program, such as EE or customer energy management, is best considered in proceedings related to the specific energy program. Such proceedings will have greater access both to the benefits and costs arising from a proposed use of information, and to the details of the information that is needed and whether access to that information raises privacy concerns.

7.5. Use Case 6: Third-parties, e.g. Solar PV Installers, Seek Access to Anonymous Data to Identify Households that could Benefit from their Services

Use Case 6 was described in the ALJ Ruling as follows:

> Solar installation companies requesting monthly energy consumption data EE and participation in the net energy

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[105] TURN Opening Comments at 7.

[106] CCSE Opening Comments at 5-6.

> metering program, aggregated to a geographic area that protects PII, to reduce the product development and engineering costs in order to advance residential and commercial solar installations. In this case, the data, prior to aggregation, is PII, while the result – the identification of areas where solar power is financially feasible – is non-PII.[107]

7.5.1. Working Group Report on Use Case 6

The Working Group Report indicates that SolarCity submitted supplemental information providing more details on the implementation of Use Case 6, as follows:

> Solar installation and EE companies will analyze anonymized, household level energy consumption and billing data to identify customers/households that may benefit from energy services. After analyzing energy bills, these third-parties will develop proposals for these households and submit them to an Energy Data Center. Customers will have the option to select their preferred communication method (i.e. email, phone, through portal, etc.). Based on the communication preferences indicated by the customer, the Energy Data Center will notify customers that trusted third-parties have developed household specific proposals, including estimates of energy and bill savings, and would like to market their services. If customers opt-in, the Energy Data Center will forward the detailed proposals from third-parties to the customer. Personally identifiable information is never revealed to any third party, unless the customer contacts the third party directly.[108]

The Working Group Report continues to describe SolarCity's proposal as follows:

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[107] ALJ Ruling (February 27, 2013) at 15.

[108] Working Group Report at 70.

> The objective [of SolarCity' Use Case 6] is to analyze customer usage data to better understand opportunities to deploy distributed renewable energy and EE improvements at customer's home, reducing their energy consumption and bills. This will reduce customer acquisition costs, a major lever to facilitate more widespread adoption of distributed renewable energy and EE, by helping third party renewable energy and efficiency installers present data-driven and tailored proposals to customers who can most benefit from their services. This will also increase precision of solar and home retrofit systems, since real data helps right-size systems.[109]

In its discussion, the Working Group Report argues against the Commission's approval of Use Case 6, stating that:

> The key issue is whether the use of a "neutral" third-party – whether the utilities or some third-party independent of the solar vendors and EE contractors, is sufficient to protect the privacy of customer-specific energy usage data made available for what is clearly a commercial, profit-making purpose. In addition, the logistics and protocols of ensuring that the third-party is genuinely "independent" and "neutral" toward the profitmaking commercial motives of the solar and EE vendors is an issue.[110]

The Working Group Report concludes:

> The presence of a neutral "intermediary" between the customer-specific PII and the commercial vendors is insufficient to protect customers' expectations of privacy and probably not lawful under the privacy statutes and rules. … The commercial, non-utility purpose of the data access is a

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[109] *Id*.at 71.

[110] *Id*.

> "secondary" purpose for which express customer consent is required. (CPUC Privacy Rules 1(e) and 6(d).)[111]

Finally, the Working Group Report recommends that:

> Solar vendors, EE contractors, and other third-party commercial entities can work with the electric utilities on the implementation of the utilities' Customer Data Access programs if and when approved by the CPUC. The CDA [Customer Data Access] programs will offer third-parties with streamlined, electronic access to bulk amounts of customer-specific energy usage data under a standardized, uniform customer consent process.[112]

On this use case, the Working Group Report includes a section titled "Alternative Views of Parties." This section contains a response from SolarCity, which argues that its views were not fully integrated into the Working Group Report, and states that:

> …the report also appears to gloss over or ignore some important distinguishing elements, in particular the fact that under SolarCity's use case no PII would be conveyed to third-party entities. SolarCity's proposal would allow third-parties access to customer-level energy usage data, but…we do not believe the conveyance of this information requires prior customer consent since we do not believe it is covered information. [113]

7.5.2. Comments of Parties on Working Group Report on Use Case 6

Concerning the Working Group Report's discussion of Use Case 6, SolarCity argues that its concerns "were simply cut and pasted directly from

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[111] *Id*. at 71-72.

[112] *Id*. at 72.

[113] *Id*.

[the] memo in which [SolarCity] discussed [its] concerns rather than actually integrating and addressing ... views into the report."[114] SolarCity argues that their use case does not involve covered information, as defined in the Commission's Privacy Rules, because it has been removed of information such as name and address, and because the release of data is subject to contractual terms prohibiting re-identification. SolarCity provides an outside example of "flexible standards" for defining when data may be deemed reasonably protected, developed by the Federal Trade Commission. A key component of the standards is requiring a data recipient to attest that it will "keep the data in a de-identified form and will not make any attempt to re-identify it."

SolarCity states that there is a "need to proactively use this data to notify customers of the significant opportunities that exist to reduce their energy costs and carbon footprint rather than simply waiting for customers to take action on their own."[115] Finally, SolarCity argues further that Use Case 6 "unlocks the transformative potential of Advanced Metering Infrastructure (AMI) data and is consistent with consumer privacy protections."[116]

PG&E's Reply Comments oppose the SolarCity proposal:

> Stripped of its multi-step process, SolarCity's proposal is no more than a direct attempt by SolarCity to compel the CPUC or the utilities or some other third party to use customer-specific energy usage data, without customer

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[114] SolarCity Opening Comments at 4.

[115] *Id*. at 6.

[116] *Id*. at 7.

> authorization, in order to market a non-utility product for the direct commercial benefit of SolarCity.[117]

SCE supports PG&E's views on Use Case 6,[118] as does TURN, which adds in its comments that:

> SolarCity… completely ignores the fact that they would be making a pitch to a prospective customer based on knowledge of that customer's usage patterns or their "energy profile" even though that customer never agreed that their personal information should be used for that purpose.[119]

TURN argues further:

> While some of these uses for customer data may appear compelling, the Commission needs to resist the siren song to re-vamp the privacy rules so as to diminish privacy protections for consumers. It seems that there will always be another perceived public policy benefit that those seeking more granular energy data will raise. However, as valid as some of these claims may be customer consent must remain as one of the principle ways consumers can protect their privacy. The Commission and parties spent almost a year developing the Privacy Rules embodied in D.11-07-056. Given the complexity of the issues the process was long and arduous. The Commission should not at this point change those rules by expanding the definition of "primary purpose" or by granting exemptions.[120]

7.5.3. Discussion and Conclusion

The Commission recognizes that analyzing customer data to increase deployment of distributed renewable energy and EE improvements at

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[117] PG&E Reply Comments at 9.

[118] SCE Reply Comments at 6.

[119] *Id*.

[120] *Id*. at 4.

customer's homes has the potential to offer great value to California residents. Potential benefits include greater customer insight into their consumption behavior, reduced energy consumption and bills, and greater uptake of clean energy technologies key to the achievement of the State's GHG goals.

However, the utilities are unable and should not be required at this time to serve as a proposed "neutral intermediary" responsible for processing customer data and communicating with customers. We see it as impractical to put utilities in such a novel relationship with their customers at this time, but encourage the utilities and researchers to explore SolarCity's proposal as a way to increase the deployment of distributed renewable energy and EE improvements. At this time, we encourage SolarCity to seek the release of consumption data directly from customers. The recent Commission action authorizing the provision of customer energy data to third-parties upon customer request[121] should expedite and simplify the transfer of data.

Finally, we believe that the Commission should explore this request further within any proceeding creating an energy data center, which may better serve the intermediary role envisioned by SolarCity.

7.6. Use Case 7: Building Owners and Government Agencies Desire Building Usage Data

The ALJ Ruling described Use Case 7 as follows:

> Building owners and managers seeking monthly energy consumption by building to conduct building benchmarking analyses pursuant to AB 758 and AB 1103, and publishing aggregate, non-PII results. In this case, raw data that is PII would likely be needed, but the results concerning the efficacy

[121] D.13-09-025.

> of the program, are not PII. Moreover, it may prove possible to anonymize such data via an algorithm.[122]

7.6.1. Working Group Report on Use Case 7

After describing the beneficial uses of building benchmarking data as provided by representatives of the City and County of San Francisco and the Energy Commission, the Working Group Report presented the difficulty utilities face when attempting to comply with building benchmarking requirements:

> Under the AB 1103, California's statewide building benchmarking program, utilities which receive requests from building owners for building energy usage data are required to aggregate any customer-specific or tenant-specific usage data or use other means to protect the privacy of the utility customer unless the customer affirmatively authorizes disclosure of their energy usage data.
>
> The normal solution to this problem is for the landlord, through its lease with the tenant or through other agreement, to obtain the tenant's consent to the disclosure of their private energy usage to the landlord for purposes of building benchmarking. The other solution to this problem is for the utility and landlord to adequately aggregate the tenants' usage so that the customer's identify is not disclosed as part of the aggregated whole building usage. However, neither of these solutions is completely satisfactory, because either the tenants are unwilling or unavailable to consent to disclosure of their private monthly energy usage, or there are too few tenants in the building to avoid "re-identification" of the tenants' identities even when the usage is aggregated to a whole building level.[123]

The Working Group report identified an approach to mitigate privacy risks that it argued was "pragmatic." The Working Group Report posits:

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[122] ALJ Ruling (February 27, 2013) at 15.

[123] Working Group Report at 75-76.

> If tenant usage were aggregated at no less than 20 or more tenants and no tenant represented more than 15% of the whole building usage, then such aggregation might be considered sufficient under the privacy rules and the technical standards for avoiding "re-identification." However, it should be noted that neither CCSF nor EFF and its technical experts reached agreement that an aggregation approach like this is practical enough to achieve the goals of benchmarking or technically sufficient to avoid re-identification; EFF's perspective is that additional "blurring" or "processing" of the aggregated data would still be necessary if the goal is to fully mitigate the risk. Nonetheless, the privacy risk may be considered as acceptable, given the benefits of building benchmarking and the additional privacy controls that would be applied to the aggregated data, including a non-disclosure agreement with the landlord and the requirement that any building benchmarks that would be made available publicly would not be aggregated energy usage benchmarks, but instead comparative benchmarks that "mask" the building-specific quantitative energy usage.[124]

The Working Group Report also contained a section for "Alternate Views of Parties," with comments from SDG&E, and combined comments from NRDC, IMT, CCSE, and University of California, Los Angeles (UCLA) Center for Sustainable Communities. SDG&E identified two issues requiring clarification from the Commission:

1. The CPUC must determine whether, pursuant to PUC 8380(e)(3), the requirements of AB 1103 allow the Utilities to provide the PII required to be provided to building owners under AB 1103 without additional customer consent (i.e., constitute a primary purpose).

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[124] *Id.* at 76-77.

2. The CPUC must determine whether the utilities may release information to a requestor pursuant to an affidavit signed by the requestor indicating that he/she is the building owner of record and establishing the purpose of the request is for and shall only be used for AB 1103 compliance.[125]

NRDC, IMT, CCSE, and CCSC argued that the Report mischaracterizes the working group discussion on Use Case 7, stating that:

> Utilities can implement procedures to provide monthly whole-building usage information to building owners without compromising the important privacy interests of customers and without excluding the many building owners with a small number of tenants or a tenant that accounts for a large percentage of total usage. Any risks to the privacy interests of customers can be fully mitigated by setting reasonable conditions on the release of usage information …[126]

7.6.2. Comments of Parties on Working Group Report on Use Case 7

In comments on the Working Group Report's discussion of Use Case 7, PG&E,[127] TURN,[128] and ORA[129] interpreted AB 1103 as prohibiting release of individual tenants' energy data in smaller buildings for which aggregation was not sufficient means to protect customer privacy. PG&E recommends "further discussions" on this use case.[130] PG&E argues that, "unlike SDG&E, PG&E does not view the AB 1103 customer confidentiality requirements as requiring

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[125] *Id.* at 78.

[126] *Id.* at 78-79.

[127] PG&E Opening Comments at 6-7.

[128] TURN Opening Comments at 7.

[129] ORA Opening Comments at 17.

[130] PG&E Opening Comments at 9.

clarification by the CPUC."[131] Instead, PG&E points out that it is the CEC, not the CPUC that administers AB 1103.[132]

In comments, NRDC and IMT contend that the risks associated with releasing tenant data to a building owner already exist because an owner can access a tenant's usage information without requesting it from the utility, for example by observing the meters located on the premises. LGSEC also supports this in its comments, stating that the building owner is already "aware of…the two largest factors in relative energy use of tenants: the fraction of the building leased by that tenant, and the general use for which the tenant has leased the space."[133]

NRDC and IMT also hold that "monthly usage information in itself is very coarse and should be considered separately from real-time data." In addition, they state the following:

> In AB 1103 the California State legislature directed building owners to collect usage data at the building level for the express purpose of benchmarking and affirmed the State's strong policy interest in giving owners access to whole building usage information to enable energy management.[134]

NRDC and IMT argue that it is incorrect to "treat a building owner's request for … information under the same standards as it would treat a request for the same information coming from a member of the public at large."[135] Their

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[131] PG&E Opening Comments at 7.

[132] *Id*.

[133] LGSEC Opening Comments at 5.

[134] NRDC/IMT Opening Comments at 2.

[135] *Id.*

comments maintain that building owners should have access to usage data on the buildings they own, even if they are not the customer of record. EnerNOC supports the position of NRDC, IMT, CCSE, and CCSC in its comments.[136] CFC argues that there is no conflict between privacy protections and the AB 11103 and AB 758 disclosure requirements, but also argues that "written ratepayer consent" is required.[137]

SCE holds that "AB 1103 does not require release of customer data without consent"[138] but also states it would not oppose the "20/15 Rule" if tied to a non-disclosure agreement.[139] On the other hand, SCE argues against the NRDC proposal to treat building owners differently "than members of the public at large or a third-party researcher."[140]

TURN states that it "tentatively supports the Report's recommendation" for a 20/15 rule.[141] TURN also states that it finds the arguments of NRDC, IMT, CCSE, and UCLA unpersuasive.[142]

LGSEC represents local governments, many of whom "are working with the California Energy Commission as it implements AB 1103, the building energy usage disclosure program."[143] LGSEC argues that "as a practical matter, local

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[136] EnerNOC Opening Comments at 10.

[137] CFC Reply Comments at 4-5.

[138] SCE Opening Comments at 15.

[139] *Id*.

[140] *Id*. at 16.

[141] TURN Opening Comments at 7.

[142] *Id*.

[143] *Id*.

governments cannot fulfill [their] obligations to [their] citizens and elected governing bodies if a naïve 15/15 style rule governs data release," citing state and local requirements like AB 1103 to "engage in limited disclosure summarizing energy usage in the building."[144] In its comments, LGSEC includes examples of account aggregation thresholds from seven public utility regulatory commissions across the nation[145]:

Utility Company/Public Utility Commission	**Account Aggregation Threshold** (Number of accounts / maximum % of total energy usage one account can contribute)
Austin Energy (TX)	4/80%
Avista (Washington)	No threshold
Colorado PUC	15/15%
Commonwealth Edison (Illinois)	4
Consolidated Edison (New York)	No threshold
Pepco (District of Columbia)	5
Puget Sound Energy (Washington)	5
Seattle City Light (Washington)	2

LGSEC requests that the Commission "provide clear direction that utilities must provide building owners with the sum of monthly energy use for the entire

[144] LGSEC at 5.

[145] *Id*. at 6.

building for the purpose of benchmarking in compliance with a state or local mandate."[146]

ORA requests further technical discussion before the selection of a method of aggregation, but also supports the release of data that protects tenant privacy and enables landlords to demonstrate compliance with building benchmarks.[147] ORA concludes with comments strongly supporting customer privacy.[148]

7.6.3. Discussion and Conclusion

The Commission recognizes the authority of the CEC given to it, pursuant the Warren-Alquist Act and other laws, to set State energy policy and implement EE and other programs. These laws, including Public Resources Code §§ 25216 and 25216.5, vest the CEC with broad authority to collect from all available sources information on all forms of energy supply, demand, conservation, public safety, research, and related subjects – including EE and consumption data.

The Commission is aware that privacy issues raised in this proceeding are similar to issues that the CEC has addressed, and is addressing, in implementing the Non-residential Building Energy Use Disclosure Program (Public Resources Code, § 25402.10; Cal. Code of Regs., tit. 20, § 1680 et seq.). The Commission recognizes that implementation of that or any other program pertaining to the Public Resource Code – including handling privacy concerns as appropriate to carry out legislative intent – is the responsibility of the CEC, not this Commission. Even so, the Commission notes that neither this decision nor the Public Utilities Code prohibits utilities from providing building owners and

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[146] LGSEC Opening Comments at 7.

[147] ORA Opening Comments at 17.

[148] *Id*. at 18.

operators with the monthly energy use data required by Public Resources Code section 25402.10."

7.7. Use Cases 8 and 11: Third-parties Seeking More Granular Data on EE Programs

The ALJ Ruling described Use Case 8 as follows:

> EE contractor seeking CPUC-released aggregate data, similar to what the California Solar Statistics program releases, but using Energy Upgrade California data and other aggregate energy consumption data, to help validate the quality and value of EE work. Here, the raw data studied is likely PII but the program result – the validation of the EE work – does not necessarily reveal PII. Once again, it may prove possible to apply an algorithm that provides anonymization that cannot be reverse engineered.[149]

Use Case 11 was not included in the ALJ Ruling; it is instead based on information submitted by Faraday and Brighter Planet Technology Services during the Workshop Discussions. Use Case 11 is:

> EE program implementers, contractors, consultants, research institutions, city and county governments or other entities requesting micro data on energy consumption, payment data, EE program participation, and retrofit activity to identify trends in customer participation in efficiency programs and retrofit activity. The requested data must include PII to allow linkage with other relevant data, but the results of analyses (e.g. trends) would not be PII.[150]

The Working Group Report states that "[t]he objective of the use case is to improve EE program effectiveness."[151]

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[149] ALJ Ruling (February 27, 2013) at 15-16.

[150] Working Group Report, Appendix A at 65.

[151] *Id.*

7.7.1. Working Group Report on Use Cases 8 and 11

Concerning Use Cases 8 and 11, the Working Group Report took the position that "the commercial, non-utility purpose of the data access is a 'secondary' purpose for which express customer consent is required."[152] The Report went on to state that "making data available to commercial entities for a commercial purpose without customer consent likely violates Public Utilities Code § 7380(b)(2), which expressly prohibits a utility from selling a customer's identifiable information for any purpose."[153] The Working Group Report suggested that:

> Solar vendors, EE contractors, and other third-party commercial entities can work with the electric utilities on the implementation of the utilities' Customer Data Access programs if and when approved by the CPUC. The CDA programs will offer third-parties with streamlined, electronic access to bulk amounts of customer-specific energy usage data under a standardized, uniform customer consent process. The CDA programs will provide third-parties with access to customer-authorized, customer-specific energy usage data as requested … without violating customer privacy.[154]

The Working Group Report also included alternative views of SolarCity. SolarCity, in addition to defending its request for data, more broadly argues that "AMI data represents a significant opportunity to advance key state policies, in particular efforts to drive customer adoption of EE, distributed generation (DG)

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[152] Working Group Report at 72.

[153] *Id.*

[154] *Id.*

and other energy management solutions that are fundamental to achieving the state's greenhouse gas reduction goals."[155]

7.7.2. Comments of Parties on Working Group Report on Use Cases 8 and 11

Concerning Use Cases 8 and 11, EnerNOC argues in its comments that "it is not appropriate to include a requirement to aggregate and anonymize all data, even if the data is without PIIs, before releasing the information."[156] EnerNOC agrees with SolarCity that "anonymizing and aggregating all data would have deleterious effects to third-party service providers relative to Use Cases No. 6, 8 and 11."[157]

ORA argues in its comments that utilities should provide "commercial entities access to only non-PII data absent customer consent."[158]

TURN also supports limiting access to PII data, holding that "privacy concerns should trump other possible benefits in the absence of procedures to fully anonymize and aggregate customer information to ensure PII is not being revealed."[159]

7.7.3. Discussion and Conclusion

The Commission recognizes the important objective of this use case. However, there is no record in this proceeding that would support the adoption of an anonymization algorithm at this time.

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[155] *Id.* at 74.

[156] EnerNOC Opening Comments at 10.

[157] *Id.*

[158] ORA Opening Comments at 16.

[159] TURN Opening Comments at 7.

In summary, for Use Cases 8 and 11, we do not authorize the direct release of any data that contain PII.

7.8. Use Case 9: CSD Proposal for Low-Income Energy Assistance Data Sharing

An ALJ Ruling on July 10, 2013,[160] added a use case proposed by CSD to the record of this proceeding and invited comments and replies pertaining to the use case. The ruling states:

> [T]he Department of Community Services and Development (CSD) proposed to the Commission that a supplementary use case be developed to address data sharing in connection with the coordination of the low-income customer programs of the Investor-Owned Utilities (IOUs) and the federally-funded low-income client programs of CSD.[161]

The ALJ Ruling of July 10, 2013, contains the details of the CSD proposal as Attachment A. Attachment A describes the use case as follows:

> Governmental agencies, like CSD that implement federally-funded EE programs for low-income persons, endeavoring to coordinate the delivery of energy services with similar services provided by IOUs, through the reciprocal sharing of: 1) customer/ client personally identifiable information ("PII"), involving eligibility, account information and energy usage data, all shared with the consent of the customer/client; and 2) historical, non-PII, property-centric weatherization data.[162]

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[160] ALJ's Ruling Revising Schedule for Filing Use Cases, Comments and Replies; Adding Use Cast to the Record, and Inviting Comments and Replies, July 10, 2013 (ALJ Ruling of July 10, 2013).

[161] ALJ Ruling (July 10, 2013) at 3.

[162] ALJ Ruling (July 10, 2013), Attachment A at 3.

7.8.1. Working Group Report

The Working Group Report summarizes CSD's argument in support of this use case as follows:

> As a result of this information sharing, similar statewide low income assistance programs administered by CSD and the utilities can better target and reach eligible customers and save on administrative and outreach costs.[163]

The Working Group Report took the position that while "coordination of CSD and utility low income programs is already the subject of the CPUC's pending EE proceedings," efforts to "avoid duplicative or cost-ineffective weatherization services should be supported."[164]

The Working Group report states that:

> CSD and the utilities are revising their respective customer application forms to ensure that customer data can be shared among the different agencies prospectively, based on customer consent. In addition, CSD and the utilities are developing a joint customer data base and are considering whether certain categories of historical customer participation data, including addresses of buildings that have been previously weatherized, can be shared without a risk that the identity of the tenant or resident who resides in the building will be disclosed or "re-identified" contrary to the CPUC's privacy rules or the California Information Practices Act.[165]

7.8.2. Comments of Parties on Working Group Report

CSD's comments request access to energy usage data and argue that:

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[163] Working Group Report at 84.

[164] *Id.*

[165] *Id.*

> A multi-faceted, comprehensive and global approach would provide a framework for establishing data-sharing principles and guidelines to inform the process of coordinating and harmonizing the low-income assistance programs of the IOUs and CSD, a process in which the sharing of data is both integral and essential.[166]

CSD believes that the sharing of customer information can be justified on "a careful reading of statutory authorities." CSD seeks authority to share data "between CSD and the IOUs and among the IOUs on a bilateral basis, as well as through a statewide low-income program database."[167]

CSD argues that such access and sharing is required for it to fulfill its statutory mandates:

> The U.S. Department of Health and Human Services, funding agency of the LIHEAP [Low Income Home Energy Assistance Program] program, has recently increased reporting requirements on energy usage data to enable a better understanding of the effectiveness of assistance and the impact on the utility burden on low-income families. Such reporting requirements can only be met if the IOUs share the necessary usage data with CSD. The best way, though certainly not the only way, for CSD to meet this obligation would be through access to data maintained in a statewide database containing customer energy usage data provided by the IOUs and Small, Multi-Jurisdictional Utilities. Use Case 9 affords the Commission an opportunity to help enable California to meet this federal requirement.[168]

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[166] CSD Opening Comments at 3.

[167] *Id.* at 6.

[168] *Id.* at 7-8.

CSD asserts that "much of the information collected by the IOUs, associated with their low-income programs, is derived from Smart Grid Technologies and related sources."[169]

CSD requests that the "IOUs, working in concert with CSD and CPUC staff … develop a standardized consent form or attachment to be appended to a standardized service application."[170] CSD also recommends that parties develop "standardized procedures for processing data sharing requests" and "procedures … to enable the sharing of data through a statewide low-income program database that will ensure information security requirements, sufficient to prevent abuses without unduly impeding efficient program implementation."[171]

Finally, CSD identifies a series of reports required by federal law or regulation that it must make to the United States Department of Health and Human Services (HHS) in conjunction with its low-income programs. CSD argues that it "will need monthly customer usage and cost data from the IOUs and other utilities"[172] to fulfill these requirements.

7.8.3. Discussion and Conclusion

The Commission would consider transferring information[173] (or ordering utilities to transfer such information) to another agency when such a transfer is necessary to permit the agency to perform its constitutional or statutory duties.

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[169] *Id*. at 10.

[170] *Id*. at 13.

[171] *Id*.

[172] *Id*. at 19.

[173] The Commission can share the data with CSD under both California Information Practices Act and Government Code provisions. See Civ. Code §1798.24(e)-(f) and Government Code §6254.5.

Concerning the issues presented by Use Case 9, we see no legal obstacles that prevent the provision of weatherization data to CSD. Such information pertains to public investments in a property. It is therefore reasonable to require that PG&E, SCE, SDG&E, and SoCalGas make weatherization data pertaining to individual addresses available to CSD.

In particular, concerning CSD's request that it receive usage data pertaining to the LIHEAP program, there is no legal obstacle that prevents the Commission from ordering the transfer of such information either from the utility or from the Commission's possession. CSD is charged with implementing the LIHEAP block grant and complying with federal program requirements. Government Code § 16367.6(a)-(b) authorizes CSD to administer all the federal low-income energy assistance funds, and to promulgate a comprehensive procedure to ensure that funds are used in the most productive and efficient manner. Thus, obtaining information on the weatherization of buildings and the usage by customers in weatherized building can play an essential role in enabling CSD to identify and ensure that funds are used productively.

Further, we note that the HHS, which funds the LIHEAP program, has an explicit statutory mandate to collect data.[174] The HHS conveys its needs and requirements for data to CSD through program guidance and other directives, thereby placing them under the statutory requirement to provide data. Since CSD needs data to perform its statutory duties under both state and federal law, this Commission can either collect and transfer such data or, alternatively, direct the utilities, pursuant to a Commission order, to provide the historic data on

[174] 42 USC § 8629.

weatherization to CSD, even in the absence of a specific data release signed by the customer.

We also note with approval CSD's decision to incorporate a "data release" provision into the application form whereby the applicant for assistance provides CSD with access to confidential usage data. Such action obviates the need for Commission orders or actions pertaining to this data in the future.

Finally, CSD reports that it is working with utilities to develop a joint customer database to track information pertaining to the LIHEAP program. We note that some funding issues raised by CSD in relation to the joint data base are more closely related to the Commission's low income EE programs, and defer those issues, if any, and their resolution, to the current ESA/CARE proceeding, Application 11-05-017 et al. and any successor proceedings.

In summary, this decision orders utilities to provide CSD with the weatherization and customer usage data that CSD requires pertaining to the LIHEAP program. The utility should provide the Commission with a description of the information disclosed and the name, title, and business address of the person or agency to whom the disclosure was made through the process described in Section 8.

7.9. Use Case 10: Energy Commission Seeks Access to Customer Data from Utilities for Title 24 Building EE Compliance

According to the Working Group Report, "Use Case 10…was not included in the ALJ Ruling, but was submitted by the Energy Commission for

consideration by the Working Group."[175] The CEC describes Use Case 10 as follows:

> As a means of verifying compliance with the Title 24, Part 6 Building EE Standards as they relate to Heating, Ventilation and Air Conditioning (HVAC) system efficiency and installation requirements, the Energy Commission's Compliance and Enforcement Office needs to determine what HVAC systems are being imported into and sold in California for installation within the state. This determination can be made through the tracking of an HVAC's serial number, whereby any HVAC unit sold in the state will have its serial number entered into a database so that the serial numbers in this database can be compared to the serial numbers of HVAC units installed under the permitting process in local enforcement agencies throughout the state. This information can also be used for, and should be a requirement of, any HVAC rebate program within the state, whereby a rebate will be issued only for those HVAC installations where the proper permitting by the local enforcement agency has been accomplished. Therefore, the Energy Commission is requesting that the utilities require their customers to provide this data as a condition of receipt of HVAC rebates and utility service.[176]

7.9.1. Working Group Report

The Working Group Report states that:

> Unfortunately, Use Case 10 does not involve energy usage data or customer specific data, and therefore is outside the scope of the Working Group discussions. The Working Group expressed no opinion on the merits of Use Case 10.[177]

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[175] Working Group Report at 85.

[176] *Id*.

[177] *Id*. at 86.

7.9.2. Comments of Parties on Working Group Report

Use Case 10 attracted few comments.

ORA stated that "this use case falls outside the scope of the proceeding."[178]

7.9.3. Discussion and Conclusion

As stated above, the Commission recognizes the authority of the CEC given to it, subject to the Warren-Alquist Act and other laws, to set State energy policy and implement EE and other programs. These laws, including Public Resources Code §§ 25216 and 25216.5, vest the CEC with broad authority to collect from all available sources information on all forms of energy supply, demand, conservation, public safety, research, and related subjects – including EE and consumption data.

The request provides no foundational information on whether a utility keeps data on the particular device installed in any database related to usage. As a result of the dearth of information, we cannot address this issue here.

7.10. Use Case 12: DECA Seeks Granular Data to Model Energy Usage at Sub-Hour Time Intervals

Use Case 12 first appears in the Working Group Report. The report describes this use case as follows:

> The Distributed Energy Consumer Advocates (DECA) submitted and extensively described a use case during the Working Group sessions relating to grid-related energy usage information to support DG. DECA described its use case as providing the public with a working model of the majority of California's electricity grid, with a particular focus on the ability to model all electricity consumers' consumption at sub-hour time interval and to tie that data to actual weather

[178] ORA Opening Comments at 3.

> conditions, building data, etc. The use case allows for the overlaying of wholesale market data including wholesale production run simulations providing prices and emissions. Expected users of this data are policy advocates, DG providers, EE marketers and evaluators, and local governments.[179]

7.10.1. Working Group Report on Use Case 12

Use Case 12, the DECA use case, proceeds from the assumption that personal information is not revealed if the data released includes data that has a sufficiently low probability of being the actual usage data of any one person or firm. DECA suggests a "like for like" swapping via randomization of actual sub-hour energy data at the meter level that would be performed by the utility for a requesting party. The Working Group Report states:

> In DECA's proposed process a requesting entity would provide to the recipient utility a geographically bounded area for randomization of meter data. The requesting entity would attest that the bounded area contained no uniquely identifiable customers based on anomalous housing stock via a threshold mechanism. DECA proposed a threshold of at least three similarly sized houses within geography and included easily identifiable electronic signatures such as swimming pools and hot tubs in addition to housing stock/size.[180]

The Working Group describes the process of creating a data set that could support research yet not contain data in a way that would readily permit identification:

> Utilities would only randomize meter/address pairs for geography once, regardless of the number of requests for the

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[179] Working Group Report at 86.

[180] *Id*. at 87.

> data, and would be required to keep a publicly accessible version of that area and the data it contains. DECA proposed that areas contain uniquely identifiable housing stock be aggregated with other geographies until the "like for like" threshold is met. CPUC staff would be responsible for approving aggregated geographies. Like the homogenous geographies described above these aggregated geographies would only be randomized once to prevent re-querying.[181]

7.10.2. Comments of Parties on Working Group Report on Use Case 12

DECA comments that the "Commission should adopt the methodology proposed in DECA's Use Case 12 as an interim vehicle for providing smart meter data until such a time as an Energy Data Center is created."[182] DECA argued that it "has made a concerted effort to address the privacy issues raised by many parties by proposing an interim solution until such time as a data cube can be implemented."[183]

DECA's comments provide details on how it proposes to implement Use Case 12. Specifically, DECA proposes a detailed eleven-step process for implementing Use Case 12. Under its proposal, those requesting data would need to submit requests to both the utilities and to the Commission's Energy Division. The data request would have specific boundaries and attest to the "homogeneity of the residential structures within the bounded geography."[184] The proposal also contains requirements pertaining to rooftop solar, pools, and

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[181] *Id.*

[182] DECA Opening Comments at 5.

[183] *Id.*

[184] *Id.* at 7.

at least "15 houses per feeder line."[185] The Commission reviews the request, and, if approved, the utilities "will be required to randomize their collected meter data by feeder line."[186] The Commission would host the files on its website and include all smart meter data for the geographic area subject to the request.

In commenting on the DECA and other aggregation proposals, SCE argues that:

> The disparate and alternative aggregation techniques offered by the parties are more difficult to administer than the 15/15 Rule, with no proven upside, and should not be adopted at this time.[187]

Based on its review of these disparate proposals, SCE concludes:

> Given the wide array of proposals, most of which serve specific use cases in a way that cannot be leveraged to support others, the Commission should focus on modest refinements to the 15/15 Rule, if possible, and how it might be used to prepare "standardized" responses to commonly submitted data requests in the proposed straw person catalog described in the Working Group Report. [188]

7.10.3. Discussion and Conclusion

The Commission recognizes that a working model of the state's electricity grid has the potential to offer great value to California residents and policy makers. Benefits include increased transparency regarding potential markets, better information about how to efficiently address electricity consumption, and

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[185] *Id.* at 8.

[186] *Id.*

[187] SCE Reply Comments at 12.

[188] *Id.* at 13.

better clarity regarding program potential. However, like Use Cases 6 and 11, Use Case 12 seeks data that is very granular.

The obscuring techniques DECA suggests (synthetic data, randomized like-for-like substitution) are currently not practical to implement because they require a significant amount of Commission and/or utility staff time. In particular, the Commission or utility staff would need to verify whether bounded areas contain uniquely identifiable customers, to aggregate areas that do not meet a given threshold, to introduce synthetic data to prevent re-identification of customers within a reasonable probability, etc. At this point, none of these steps is routine – each requires the use of expertise and judgment.

The Commission looks forward to a time in the future when individual customers' energy data can be sufficiently protected to allow for a detailed model as proposed in Use Case 12. The Commission should also further explore the procedures recommended by DECA in any proceeding addressing the issue of an energy data center. In particular, determining the efficacy and practicality of a proposed anonymization technique is one of the services that an energy data center could provide to those seeking data.

8. Process for Gaining Access to Energy Usage Data

The Working Group reports that the utilities participating in the proceeding jointly submitted a "straw" proposal for streamlining and improving the data access process.[189]

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[189] Working Group Report at 88-92.

8.1. Working Group Report's Proposal on One-Stop Process

Section VII of the Working Group Report outlined the need for a "one-stop process" to streamline access to energy data.[190] The Working Group Report laid out a multi-step process to facilitate the sharing of energy information between a utility and a third party. As part of that process, the Working Group Report proposes:

- A single point of contact at the utility;[191]
- Release of energy data by utilities in a common electronic format;[192]
- A template form consistent across utilities for requesting information;[193]
- A "catalogue" of standardized energy data access reports that can be made available by the utilities in 7-10 business days after receipt of request;[194]
- A commitment by the utility to respond to a request within 7-10 business days detailing whether the request is complete or incomplete;[195]
- A commitment by the utility to respond within 30 business days detailing whether the request is accepted or not;

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190 *Id.* at 88-89.

191 *Id.* at 89.

192 *Id.* at 92.

193 *Id.* at 89.

194 *Id.*

195 *Id.* at 89-90.

  - if accepted, the utility provides a schedule for making data available, and proposed cost of obtaining the data; and
  - If rejected, the requestor has an opportunity to appeal utility decision to an "Energy Data Access Advisory Committee[196]";
- Execution of a standardized confidentiality agreement (consistent across the utilities) between the utility and the requestor in certain cases for data transfer to occur;[197]
- The creation of an "Energy Data Access Advisory Committee" to review and advise utility data access programs, and informally arbitrate any disputes between a utility and a requestor;[198] and,
- Acknowledgement of the need to maintain the privacy and security of energy usage data.[199]

8.2. Comments of Parties on Working Group Report on the Proposed Process for Accessing Data

Concerning the proposal for expedited access to data through the "straw" proposal, PG&E argues that:

> Coupled with the utility-sponsored "strawperson" streamlined process for data access, a model non-disclosure agreement where PII data may be contained or derived, and recovery of reasonable incremental implementation costs as outlined in Sections VII and VIII of the Report, these recommendations provide a realistic "roadmap" for implementation of greater and more streamlined access by third-parties to energy usage data under the "use cases"

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196 *Id.* at 90.

197 *Id.*

198 *Id.* at 90-91.

199 *Id.* at 91.

> identified by the February 27, 2013, ALJ Ruling and in the workshops.[200]

SCE takes a similarly optimistic approach to the Working Group Report and the proposals to expedite access to data. SCE states:

> The main achievement of the Working Group Report is the straw person proposal by the IOUs to field and process common requests for aggregated data in a standardized way. As SCE has stated previously, for all but a handful of third-party data requests that, as submitted, would have required the disclosure of personally identifiable information (PII) for a secondary purpose without customer consent, SCE has not encountered major problems timely fulfilling requests for aggregated data to the satisfaction of the entities requesting it. Specifically, of the approximately 154 requests received from over 60 parties between 2010-2012, SCE responded to 99% of the requests in a way that was mutually agreeable to the parties and consistent with SCE's legal obligations.[201]

SCE finds that the current process is working well, and proposes that the Commission "address and standardize logistical issues involved in fulfilling common requests for aggregated data rather than undertake radical and costly reform of the data provisioning process as it exists today."[202]

SDG&E, however, argues that the work of the Commission is not done:

> While the Utilities set forth a "strawperson" proposal in the Report, the parties need additional time to dive into the specifics and determine what data sets might be appropriate to provide in a streamlined, pre-approved format. While certain items in the strawperson proposal are

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[200] PG&E Opening Comments at 2.

[201] SCE Opening Comments at 2.

[202] *Id.* at 3.

> non-confrontational (i.e. establishing a single point-of-contact) others require more scrutiny (i.e. review of privacy controls and security protocols).[203]

In contrast, ORA expresses support for the utilities straw proposal, stating that "it obviates the need to build a costly and duplicative Energy Data Center."[204] ORA, however, recommends several changes to the proposal. It recommends that "the Commission order the utilities to set up a web portal to post and track third-party requests for customer energy usage data in a public matter."[205] ORA also proposes that the web site include "a completed request form," whether the request is "in process or complete," the utility response, and whether the requesting party sought review of the utility response.[206]

LGSEC "applauds the idea of a 'one-stop shop'" in its comments, agreeing with the Working Group Report that "moving this process to a web portal or other online venue will address concerns about standardizing the delivery method for data requests."[207] The LGSEC argues that "automating the process to the maximum extent should expedite receipt of the energy usage data," and provides step-by-step guidelines for shortening IOU's proposed response times from two months to 7-20 days. Steps include publishing available data formats online to eliminate back and forth between requestors and utilities, and shortening initial request response times from 30 days to 7-10 days.[208]

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[203] SDG&E Opening Comments at 9.

[204] ORA Opening Comments at 20.

[205] *Id.*

[206] *Id.* at 21.

[207] LGSEC Opening Comments at 9.

[208] *Id.* at 10.

8.3. Discussion and Conclusion

There is a clear need to enable eligible third-parties to request access to energy data via a common and consistent process across the utilities.[209] Such a streamlined process for obtaining access to energy data will ensure that there is transparency in the process for making a data request, that the schedule for responding to data requests is predictable, and that parties have access to an informal, non-binding means to address any disputes between the utility and a third party. This transparent process will ensure that the utilities are following the same rules in handling data requests and can provide information on how to obtain Commission review of any dispute over access to data.

8.3.1. Data Request & Release Process (DRRP)

In order to establish a streamlined process for data release by the utilities in response to data requests by third-parties (the Data Request & Release Process – DRRP), this decision accepts and modifies the process proposed in the Working Group Report. The details of the adopted process are described here and follow the recommendations in the Working Group Report identified above. Modifications from the Working Group proposal are incorporated into the steps that follow, but are discussed in the following section:

1. Each utility will establish a consistent, streamlined, "one-stop" process for providing data to entities eligible to request access to energy data as authorized in this decision. The process will include the following:

[209] We clarify that "third-party" and "third-parties" do not refer to or include federal or state agencies that seek access to data pursuant to their own statutory authority and procedures. The terms do, however, refer to such entities when they seek information through the Data Request & Release Process set forth herein.

a. Single point-of-contact in the utility for filing and processing of third-party energy usage data requests. The single point-of-contact will include a single email mailbox or website and other contact information to which requests for energy data access may be transmitted.

b. The single point-of-contact information will be provided prominently and conveniently on the utility's website.

c. The utility's website will provide access to an electronic input form for third-parties to request energy data access. The form will be consistent among PG&E, SCE, SDG&E, and SoCalGas.

2. The utility website is expected to eventually include a Data Catalog of energy data access requests made, fulfilled, and/or denied, among PG&E, SCE, SDG&E, and SoCalGas. New requests for data that have previously been received and fulfilled can easily be made available to eligible third-parties. Utilities must provide data without charge, but may seek a revenue requirement adjustment in their next general rate proceeding to cover these costs on a going-forward basis.

3. Within one business day of receiving a request form, from a third-party requesting access to energy data, the utility will respond by email or in writing acknowledging and confirming receipt of the request.

4. Within seven business days of receiving a request form from a third-party for access to energy data, the utility will respond by email or in writing regarding whether the information on the form is complete and, if incomplete, what additional information is required for the utility to process the request.

5. Within 15 business days of receiving a complete request for access to energy data from a third-party, the utility will respond by email or in writing regarding whether it is able to grant the request, and provide a proposed schedule for

providing the requested data. If the utility responds that it cannot grant access to the data, it will provide specific reasons for why it cannot provide the data or offer other options for providing data access (such as providing data listed in the Data Catalog or suggesting modifications to the request such that it could be granted). If the requesting party disagrees with the utility's rejection of its request for data access or the alternative options offered by the utility, the third-party may bring the dispute for informal discussion before the Energy Data Access Committee established below.

6. Non-disclosure agreement: Prior to receiving access to energy data, the requesting party will execute a standard non-disclosure agreement (described in Section 10 below) if required by the utility as directed by this decision (Section 7.2), with substantially consistent terms and conditions among PG&E, SCE, SDG&E, and SoCalGas. In addition, if a pre-disclosure review of the third-party's information security and privacy controls and protections is recommended by the utility, the recommendations will be substantially consistent among PG&E, SCE, SDG&E, and SoCalGas and published in advance and available on the utilities' website.

7. Terms of service: Local governments receiving aggregated and anonymous data need not sign an non-disclosure agreement but must accept the following terms of service:

   a. The party will use the data for the purposes stated in the request.

   b. The party will not release the data to another third party or publicly disclose the data.

8. Simultaneous with the completion of Step five, the utility must inform the Executive Director of the Commission via a formal letter of its proposed action before the provision of data to any entity pursuant to this DRRP. The utility must also send a copy of the letter to the requesting party. No data shall be released to university researchers, local government entities requesting census block-level data

until four weeks have passed from the date of the letter informing the Executive Director of the Commission of the proposed transfer. The letter shall contain the following information:

a. The purpose identified by the party requesting data.

b. A description of the data requested and to be released.

c. The following contact information

   1. Name (Individual and organization, if applicable)
   2. Address
   3. Phone and email address

For an entity that requests ongoing access to data without change in either purpose or data requested, following the initial formal letter to the Executive Director by a utility providing data, no advance letter is needed for subsequent transfers of the same type of data. Instead, both the utility and the requesting entity shall file a quarterly report identifying the data that it is continuing to send or receive and provide (and update as needed) the contact information listed in this requirement.

9. The Energy Data Access Committee will meet at least once a quarter for the initial two years, and as necessary thereafter, to review and advise on the implementation of the utilities' energy data access programs, and to consider informally any disputes regarding energy data access and make other informal recommendations regarding technical and policy issues related to energy data access.

10. If a party does not accept the recommendation of the Energy Data Access Committee, that party maintains full rights to request a formal consideration of the matter by the Commission via the Commission's petition process. If the Access Committee recommends against providing access to the data requested by a third-party, that party may file a petition with the Commission seeking

clarification of access rules. If the Access Committee recommends providing access to the data and a utility declines to follow the recommendation, the utility should similarly file a petition seeking clarification of Commission policies concerning whether that particular request is consistent with Commission policies and privacy laws.

11. Nothing in this process requires or authorizes a utility or a third-party to violate any existing privacy or information security laws, rules or orders, including the Commission's privacy rules. Nothing in this process requires or authorizes a utility or a third-party to transfer, sell, or license energy data that consists of the utilities' intellectual property, trade secrets, or competitively-sensitive data. The transfer, sale or licensing of such intellectual property, trade secrets and competitively-sensitive data will be subject to Commission review and approval consistent with existing Commission rules and orders regarding the sale, transfer or licensing of utility assets.

12. All data outputs will be in standard formats. Data will be accessible in specified formats such as comma-delimited, XML, or other agreed-upon formats. Customized outputs or formats should be avoided. The Energy Data Access Committee can review formats annually to ensure that the utilities are consistent with current technology trends for data sharing formats.

13. Mechanisms for handling data delivery for requests of all sizes in a secure manner should be standardized. To the extent possible, utilities will provide data through the customer data access program adopted in Decision (D.) 13-09-025. Some requests may be very small and require very little effort to transmit or deliver. Others could be gigabytes in size. In addition, sensitive customer information or other confidential information must be transmitted to the third party with reasonable encryption. By standardizing delivery mechanisms, utilities and third-parties will provide pre-approved delivery methods for sensitive information, reducing risk as well as the time to transmit and receive the data.

8.3.2. Discussion of Modifications to the "Strawperson" Proposal

The DRRP described in the preceding section is based on the Working Group's "straw" proposal for processing data requests. This section explains modifications made to the straw proposal by the Commission in adopting the DRRP.

The principal change to the DRRP is to ensure that the Commission is informed in detail of the provision of data to the requesting entity in advance of the data transfer via a letter to the Executive Director. Based on comments to the proposed decision (PD), we have revised this decision to require the utility to inform the Executive Director of a proposed transfer of data simultaneously with the completion of Step 5. As revised, Step 8 ensures that the Executive Director has at least 4 weeks to review a proposed transfer, but does not require that the 4-week review period commence after the data is ready for transfer. We have also modified the notification process in Step 8 to reduce the paperwork burden associated with ongoing requests for data. In addition, we revise elements of the DRRP to ensure that the Commission has other information concerning the data transfer.

The DRRP is also revised to prohibit a utility from charging a fee for providing access to data. This is a reasonable approach, since utilities currently provide data to third-parties without a specific charge and, since the approach that we take herein makes modest changes to the status quo, it is reasonable to continue the practice of providing information to requestors without fee. Therefore, this decision amends the straw proposal to strike references to "cost-based fee." The utilities, however, can request a revenue requirement augmentation in their next scheduled General Rate Case to recover incremental

costs associated with this program that are not covered in their current revenue requirement.

Concerning the establishment of a committee to assist in resolving technical disputes over access to data, we accept this Working Group recommendation and will form an EDAC,[210] In particular, we agree that technical advice to applicants and utilities concerning data and policy issues related to energy data access would prove helpful to parties contesting access to data. As noted above, if there is a dispute between the utility and third party, either aggrieved party may submit a petition with the Commission seeking clarification of the data access rules adopted in this decision.

If there is no dispute pertaining to data access and the utility provides access to usage data, then the utility shall submit the requisite letter to the Executive Director. In addition, utilities will file a quarterly Tier 1 Advice Letter to publicly note the transfer of information, amend its tariffs, and update the Data Catalog.

This shall apply to the four utilities subject to this proceeding. The DRRP shall be utilized by the utilities for handling requests for data for which release is approved in this decision. We note that only academic researchers, government agencies and local government entities are eligible to make specific requests for data.

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[210] Although the Working Group Report called this entity the Energy Usage Data Access Advisory Committee, the use of the term "advisory" can lead to confusion with other standing advisory committees enshrined in statute. In particular, this committee does not advise the Commission, it advises the entities in a dispute over data. For this reason, we will call it the Energy Data Access Committee, and its responsibilities are as directed in this decision.

We reiterate here that the release of covered information and data containing other personally identifiable information by utilities to entities approved in this decision or released pursuant to other statutory requirements are still subject to rules laid out in D.11-07-056 and D.12-08-045 and shall not be made available to third-parties without the consent of the customer, or as otherwise directed by the Commission.[211]

Additionally, the Commission adopts ORA's proposal to order utilities to make available an "Energy Data Request Portal" webpage on each utilities' website that will: 1) receive all requests for data; 2) post details of the data requests; and 3) track the progress and status of utility's response to those data requests. The Energy Data Request Portal shall host all information regarding the process to request energy data, including a list of all data attributes collected by the utility with those available for request clearly indicated; examples of common requests that are likely to be granted (e.g. residential data aggregated at the zip plus 1 level for purposes of climate action planning);[212] a form to request data; and the ability to submit the request to a utility.

The web portal shall also post a Data Catalog with the details of all data requests received from third-parties (such as the name of the third party, date of data request receipt, type of data requested, utility's disposition of the request, request fulfillment date (including explanations for any delays), and a current

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[211] This also includes the principle of Data Minimization. We remind third parties that any request should be only for that amount of energy data necessary for a specific purpose.

[212] Providing sample requests will have the added benefit of both reducing the variety of requests received by utilities, and minimizing back and forth communication between requestor and utility.

status field). The content and the format of the Data Catalog shall be finalized and revised as needed in consultation with Commission Staff. These details should be submitted in the utilities' Smart Grid Annual Report.

The utilities are directed to submit a Tier 2 Advice Letter filing within 90 days after the adoption of this decision that provides tariff language establishing a DRRP as set forth in Attachment A, provides details on the creation of the web portal described above, and proposes any revisions to their existing tariffs, if needed, to implement these requirements. The web portals shall be operational within 90 days of the effective date of the Advice Letter by the Commission.

Once the Tier 2 Advice Letter is approved establishing the process, the utilities shall begin accepting and responding to data requests from authorized third-parties per the process described above, except for the portal aspect. The requests and their associated data responses shall be posted on the web portal when ready.

9. Energy Data Access Committee (EDAC)

As noted above, in order to provide for a stream-lined, data access process, there may be a need for mediation between the requestors and utilities. An EDAC can prove useful in resolving technical and process issues pertaining to data access. This section describes the proposal as presented in the Working Group Report, addresses comments of parties, and adopts a final proposal with modifications.

9.1. Working Group Report Proposal for a Technical Committee

The Working Group Report proposes the creation of an "Energy Usage Data Access Advisory Committee" to "review and advise on the implementation

of the utilities' energy usage data access programs, and to consider informally any disputes regarding energy usage data access and make other informal advisory recommendations regarding technical and policy issues related to energy usage data access."[213] The Working Group Report also proposes that the Committee consist of representatives from utilities, the Commission's Energy Division, ORA, CEC, consumer and privacy advocacy groups, and other interested parties.[214] The Working Group Report proposes that the Committee "meet at least once a quarter to review and advise on the implementation of the utilities' energy usage data access programs, and to consider informally any disputes regarding energy usage data access and make other informal advisory recommendations regarding technical and policy issues related to energy usage data."[215]

9.2. Comments of Parties on Working Group Report on Technical Committee

ORA comments that an EDAC "may be useful for parties to review and advise on the implementation of the utilities' energy usage data access programs."[216] It holds that a quarterly meeting would allow "IOUs to inform the Commission and other parties—including ORA—whether the rules need further clarification or adjustments."[217] ORA, however, states that it disagrees with the proposal that the Access Committee

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[213] Working Group Report at 90-91.

[214] *Id.*

[215] *Id.* at 91.

[216] ORA Opening Comments at 22.

[217] *Id.*

Act "as the arbiter of an informal dispute process for data request."[218] In particular, ORA argues that the Workshop Report "fails to provide clear guidelines of how this informal dispute process works" and does not address "whether third-parties would have an opportunity to provide input."[219] ORA recommends the Commission "reject the Report's proposal to resolve disputes through the Advisory Committee" and instead proposes a two-step process that "offers third-parties and the utilities an opportunity to resolve disputes in an informal manner, and then formally through the Commission's existing Complaint Processes." The ORA proposal is as follows:

> After a utility's rejection for data access, the third-party should submit a letter of appeal to the Commission. Similar to the utilities' Advice Letter process in General Order 96-B, this informal complaint process should be delegated to Commission Staff. Because the nature of the dispute is primarily legal, the Commission can delegate authority to its Legal Division to resolve disputes through an Advisory Letter. The Advisory Letter, while not an official Commission position, would serve to analyze the third-party request and offer an informal resolution to the parties. Should the Advisory Letter not allow the parties to settle their differences, the third-party may utilize the Commission's Expedited Complaint Process:
>
> The Expedited Complaint Process is a procedure for quickly handling formal complaint cases. This process ensures a hearing, without a court reporter, within 30 days after an answer to a complaint is filed. Only the complainant and the answer are heard; the parties represent themselves. An ALJ

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[218] *Id.*

[219] *Id.*

> prepares a Draft Decision, and the final decision is made by the full Commission [(D.12-11-025, p. 35)].[220]

ORA argues that its proposed dispute resolution process is reasonable because it "affords third-parties the opportunity to appeal to the Commission when a utility initially denies a request,"[221] and it "handles complaints in a transparent, consistent manner, which affords the parties due process."[222]

TURN, in reply comments, expresses support for ORA's proposal, arguing that "it puts decision-making where it belongs – at the Commission, not at the utilities or an Advisory Committee."[223]

SCE, in reply comments, opposes ORA's suggestion that the Commission use an expedited complaint procedure for resolving a data dispute. SCE argues that an expedited complaint process would not be appropriate for resolving legal questions where precedent is important.[224]

CCSE comments:

> Given the central role this committee would play in the implementation of energy data access programs/policies and its function as the final arbiter in disputes between utilities and parties seeking data access, it is appropriate to more formally name researchers, nonprofits and advocates for data access as committee members. Furthermore, stronger language is necessary addressing the decision-making authority of this body in dispute resolution. Our fear is that "consider[ing disputes] informally" may not be sufficient to

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220 *Id.*

221 *Id.*

222 *Id.* at 24.

223 TURN Reply Comments at 6.

224 SCE Reply Comments at 11.

> address potential unreasonable withholding of data. Ideally, the Commission would have ultimate authority to resolve these issues with input from committee members.

CCSC/Energy Institute argues that the access committee

> ….should is expanded to include individuals representing the academic research community, the California Energy Commission, Strategic Growth Council, and local governments. We suggest that individuals from a university office of the vice chancellor for research would be appropriate representatives of the academic research community.[225]

LGSEC similarly argues for representation:

> Any advisory committee adopted around energy usage data must include representatives of all market sectors, particularly local governments. Given the large interest local governments have in this topic, to exclude them from any entity that is potentially making recommendations to the Commission on technical, policy, or disputed issues would disadvantage the interests of local governments.[226]

SolarCity, in reply comments, expresses support for the positions of LGSEC and CCSE that any committee "include representatives from a broader set of entities than those identified in the Working Group Report, including entities that have a direct interest in energy usage data in pursuit of state policy goals."[227]

PG&E, in reply comments, supports providing any interested party with an opportunity to participate on the Access Committee, and clarifies that the

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[225] CCSC/Energy Institute Opening Comments at 3 (unnumbered).

[226] LGSEC Opening Comments at 12.

[227] SolarCity Reply Comments at 9.

Working Group Report "does not intend [the committee] to exercise or be delegated any formal enforcement or dispute resolution powers."[228]

9.3. Discussion and Conclusion

The Commission adopts and modifies the EDAC proposed in the Working Group Report.

In response to comments from ORA, we clarify that this panel is informal and non-adjudicatory. The panel adopted here shall be called the EDAC. The utilities shall collaborate with the Commission, CEC, and ORA to establish the EDAC within six months of this decision's adoption by the Commission. We clarify that any party with an interest in data is eligible to serve on the committee but shall do so without compensation. An EDAC shall consist of representatives from each of the utilities, Commission Staff, the ORA, the CEC, representatives of customer and privacy advocacy groups, researchers who meet the qualifications outlined in this decision, and other interested parties. The EDAC will meet at least once a quarter in the initial two years, and thereafter as needed. The EDAC should meet at a location of its choosing, and make available alternative means of participating in these meetings for those members unable to attend the meeting in person.

The advice provided by the EDAC is non-binding on any party. The Commission agrees that the EDAC should create a collaborative venue to discuss data access implementation issues and to informally mediate any disputes that may arise. However, the EDAC, unlike a regular mediator, may issue a recommendation or diverging recommendations concerning whether to provide

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[228] PG&E Reply Comments at 5.

access to the data.[229] Any such recommendation will be considered by the Commission if a party seeks clarification through the Commission's petition process.

Moreover, a party seeking access to data may choose to file a petition with the Commission pursuant to Commission Rules of Practice and Procedure and seek the adoption of a rule granting them access to the information. Similarly, if a utility wishes to amend this decision to clarify appropriate action in a situation, the utility can file a petition to modify this decision. Thus, parties need not pursue a mediation/recommendation process if they wish to bring the issue before the Commission through the petition process.

In summary, the purposes of the EDAC are multiple as it can provide advice regarding a utility's protocol for reviewing data requests, can act as an informal body to review disputes between a utility and a requestor, and can act as an on-going body to discuss and review changes in protocols in response to changing technological abilities.

The EDAC will provide a forum for input and collaboration with parties requesting energy data. The EDAC will work with the four energy utilities so that access to energy data considers the "best available practices" and "best available technologies" to meet the State's energy policy needs while reasonably protecting customer privacy. Importantly, any recommendations from the EDAC in its review of a dispute between a requestor and utility are non-binding and do not have the force of law. The EDAC, however, should keep minutes of

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[229] EDAC recommendations require a simple majority with the ability of the minority to offer its own position.

its meetings, meet at least quarterly for the initial two years, and as needed thereafter, and post the meeting results and minutes on a website.

While input from the EDAC will not necessarily be agreed to by the utilities (or even among the EDAC members), the goal of this Committee is to serve as a forum for evaluating progress, informally resolving disputes, considering next steps, introducing new ideas, and identifying problems with the utilities implementation of the orders in this decision, and thus, narrow the scope of differences considerably. Also, the EDAC members will not, in any way, relinquish their rights to participate in other proceedings or comment on filings in any Commission proceeding. The process retains Commission jurisdiction over decisions with implications for privacy policy. When a particular dispute cannot be resolved by the interested parties, a petition process for adopting or clarifying a policy remains available to each party.

10. Standardized Non-Disclosure Agreement (NDA)

The ALJ Ruling noted that at the workshops in this proceeding, PG&E presented "a model non-disclosure agreement, which included data security protocols that it offered as a starting point for discussion on the elements of a non-disclosure agreement that could potentially be used by all California energy utilities or other agencies that provide data to eligible participants."[230] The ALJ Ruling asked the Working Group "to further complete or edit this NDA and appropriate data security protocols."[231]

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[230] ALJ Ruling (February 27, 2013) at 16.

[231] *Id.*

10.1. Working Group Report on the NDA

The Working Group Report states that participants "did not discuss the model agreement in detail during the Working Group Sessions."[232] The Working Group Report, however, notes that "SCE viewed PG&E's NDA as being appropriate for a vendor relationship between PG&E and parties with whom it contracts for primary utility purposes."[233] SCE ventured that "the only context in which a standardized NDA is appropriate is one in which the Commission ordered the utility to disclose data without customer authorization"[234] and proposed to offer a revised NDA in comments.

10.2. Comments of Parties on Working Group Report on NDAs

The SCE Comments on the Working Group Report contains a discussion of the use of an NDA. In addition, SCE Comments argue that the NDA "was not adequately explored"[235] in the Working Group discussions and proposes that "discussions on this important issue continue."[236] SCE includes a proposed model NDA in Attachment A to their comments.

On the wider issue of the use of an NDA, SCE argues "that an NDA should not be a tool used by the Commission to dodge its Privacy Rules to protect Covered Information from disclosure without customer consent except for primary purposes."[237] SCE argues that "an NDA mandated by the

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[232] Working Group Report at 92.

[233] *Id.* at 93.

[234] *Id.*

[235] SCE Opening Comments at 10.

[236] *Id.*

[237] *Id.* at 12.

Commission between the utility and a third party should not serve as a substitute for adhering to state law or the Commission's Privacy Rules with respect to transmission of customer-specific usage data."[238] SCE, however, sees two potential situations in which an NDA can be appropriate: "(1) to ensure the protection of customer-specific information specifically ordered to be disclosed by the Commission; and (2) to ensure the protection of aggregated data deemed by the utility to be proprietary."[239]

Despite cautionary views, SCE includes an NDA as Attachment A to its comments, which it describes as "an alternative draft of a standard NDA."[240] SCE states that since "SCE's version of the NDA is limited to Commission-ordered disclosure of PII, and, at the IOU's election, aggregated data sets over which the IOU asserts a proprietary privilege, that attached NDA does not read like a 'vendor agreement.'" Finally, SCE points out that its NDA includes "appropriate language indemnifying the IOU for misuse or improper disclosure of customer-specific information by the third party."[241]

SCE asks for more discussion of the NDA in general. SCE also asks that the "security protocols … be included in an NDA"[242] and that there be a process for ensuring that the security protocols are kept up to date.

PG&E Comments argue that the "form and content … for a 'model' non-disclosure agreement"[243] is still an open issue in the proceeding.

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[238] *Id.*

[239] *Id.*

[240] *Id.* at 13.

[241] *Id.*

[242] *Id.* at 14.

SDG&E Comments argue that "it is very difficult to put together a document that can adequately address the infinite number of potential data requests."[244] SDG&E observes that "a standardized NDA may work where there are standardized data requests answered in a standard format" but "parties have not yet come to agreement on what type of data usage requests should be subject to standardized reports."[245]

ORA provides multiple comments on NDAs, expressing support for SCE's observation on the limitations of PG&E's proposed NDA.[246] ORA also proposes the use of "a less stringent NDA, or 'NDA-Light' for data request by landlords for building benchmarking compliance under AB 758/1103."[247] ORA proposes that this NDA would require "landlords to restrict use to compliance with building benchmarking requirements."[248]

ORA in addition, proposes an NDA applicable to data obligations placed on a utility by state or federal law or by Commission order. ORA argues that this NDA "should require compliance with a cybersecurity protocol…"[249] ORA, in its Reply Comments, argues that SCE's proposed NDA, which is applicable to

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[243] PG&E Opening Comments at 12.

[244] SDG&E Opening Comments at 10.

[245] *Id.*

[246] ORA Opening Comments at 24.

[247] *Id.* at 25.

[248] *Id.*

[249] *Id.*

situations where the IOU asserts a proprietary or trade secret right or to situations that arise from a Commission order, is a reasonable way to proceed.[250]

SoCalGas, noting that the Working Group Report did not discuss the model NDA, "requests that the Commission grant the working group more time to finalize the energy usage data access non-disclosure agreement."[251] SoCalGas argues that to complete an NDA, there needs to be a "final determination regarding the restrictions on the distribution of the energy usage data," and "limitations of the utilities' liability in case of breach" and "protocols in case of breach."[252]

TURN expresses skepticism about the use of an NDA:

> The theory behind both the NDA and contract is that potentially harsh penalties for identifying or re-identifying a customer will act as a disincentive to such actions. Unfortunately, neither a contract nor an NDA will necessarily lead to protecting customer privacy. If a party violates an NDA or a contract they may face consequences, but from the consumers' perspective their data has been released – the proverbial horse is out-of-the-barn.[253]

TURN, however, opines that a performance bond "would provide consumers whose information has been released some insurance against such a possibility."[254]

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[250] ORA Reply Comments at 8.

[251] SoCalGas Opening Comments at 4.

[252] *Id.* at 4.

[253] TURN Opening Comments at 6.

[254] *Id.*

CCSC/Energy Institute note that the Energy Institute "has signed an Energy Usage Data Master Agreement with PG&E."[255] Based on that experience, the filing notes that "[t]he Energy Institute … would prefer language that only allows for termination of a Confidentiality Agreement upon a breach of the agreement," arguing that "withdrawal of data is the surest means to stop a research project," and that the current language "would effectively have allowed PG&E to exercise editorial censorship of research produced with the data." [256]

EFF, in reply comments, argues that NDAs "are clearly necessary to the achievement of Commission objectives in this proceeding."[257] EFF expresses support for the notion that "any mandatory NDA must comply with all applicable state law and the Privacy Rules."[258] In addition, EFF argues that "any NDA should ensure that data recipients maintain strong data security under the NDA, in addition to prohibiting re-identification and re-disclosure."[259] EFF also argues that "any NDA provide utility customers whose information is being disclosed under the NDA with private rights of action to obtain liquidated damages for breach of the NDA."[260] EFF sees that as augmenting TURN's performance bond.[261]

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[255] CCSC/Energy Institute Opening Comments at 3 (unnumbered filing).

[256] *Id.*

[257] EFF Reply Comments at 9.

[258] *Id.*

[259] *Id.*

[260] *Id.*

[261] *Id.*

10.3. Discussion and Conclusion

In order to provide covered information to researchers pursuant to a Commission order, we find that a more formal NDA is useful.

At this time, we believe that the model NDA attached to this decision as Attachment B can be used by utilities and research institutions receiving PII data pursuant to Commission order. It can assist in ensuring compliance with the Public Utilities Code, assign liability for breaches of data security, and prevent any subsequent disclosure of PII. The model NDA attached also provides terms for ensuring the security and privacy of identifiable customer data while under the control of the recipient. The Commission encourages the EDAC to recommend revisions to the NDA if necessary.

Finally, this decision does not address whether Public Resources Code Section 25402.10 or AB 758 require nondisclosure agreements as prerequisites for compliance. These are matters within the jurisdiction of the CEC.

11. Cost Recovery

As noted above, utilities currently provide access to data to requesting parties as part of normal operations. To a certain extent, these costs are currently recovered by the base revenue requirement set in a general rate case. Yet, the Commission understands the uncertainty in projecting the number of requests for data the utilities are expected to fulfill.

As discussed below in the section "Comments on Proposed Decision," PG&E, SDG&E and SCE have argued persuasively that the incremental costs may be substantial, and for that reason the Commission should permit utilities to book incremental costs to a memorandum account and seek recovery through an adjustment to revenue requirements in their next general rate case or in an application to recover these costs.

12. Other Commission Proceedings

This decision does not supersede nor negate other Commission decisions regarding release of energy data.

13. Outstanding Motions

On August 16, 2013 and August 27, 2013, EFF filed motions seeking to supplement the record on the Working Group Report. EFF sought leave to file to supplement the record with two documents: (1) The written technical comments provided by EFF's outside experts on differential privacy techniques at the May 22, 2013 workshop; and (2) a factual response by EFF's outside experts to comments filed in this proceeding by CCSC/Energy Institute on July 29 and August 5, 2013.

13.1. Positions of Parties

In support of the motion, EFF noted that "the ALJ made a special point of requesting parties' comments on the techniques for incorporating 'noise' into data analyses in order to protect privacy without unduly reducing the effectiveness of statistical analyses."[262] EFF further argued that "[g]iven the shortness of time between the opening comments on July 29 and the reply comments on August 5, EFF did not have sufficient time to review and respond to CCSC/Energy Institute's allegations regarding the effect of "blurring" and other privacy protection techniques on the viability of the empirical data analysis supported by CCSC/Energy Institute."[263] EFF argues further that:

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[262] Motion of Electronic Frontier Foundation for Late Filing to Supplement Record on Working Group Report, August 27, 2013 (EFF Motion), at 1.

[263] *Id*. at 2.

> Because of the importance of a full and factual record on these issues, and because EFF's experts are providing a factual response to CCSC/Energy Institute's allegations, EFF requests the opportunity to supplement the record in this proceeding with the document presented at the May 22, 2013 workshop (Attachment A to this Motion) and its experts' factual response to CCSC/Energy Institute's comments (Attachment B to this Motion).[264]

On September 3, 2013, CCSC/Energy Institute LGSEC and CCSE filed a joint response opposing the EFF Motion. The response notes that "all parties have been provided ample notice of the time allotted for reply comments."[265] This Joint Response argues further that if the Commission were to grant the motion:

> [T]he Commission would empower a situation where all parties could continue to produce additional information and replies to replies – indefinitely. The Commission must adhere to some form of schedule in order to reach timely resolution of the issues before it. Indeed, should EFF's relief be granted, then all parties must be offered additional time to respond to these new comments to prevent unfairness.[266]

In addition, the Joint Response argues that:

> Through EFF's comments it is apparent that EFF does not fully understand how economists use sophisticated regression and other empirical techniques to analyze important public policy questions. It is only with access to raw billing data that

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[264] *Id*.

[265] Response of the CCSC, Energy Institute, LGSEC, and The CCSE to the Electronic Frontier Foundation Motion, September 3, 2014 (Joint Response) at 2.

[266] *Id.* at 3.

> rigorous analyses of energy pricing and programs can be performed.[267]

PG&E states that it "supports the EFF Motion and request that the expert factual information contained in the attachments to the Motion is admitted into the record of this proceeding and that interested parties have an opportunity to comment on the information."[268] PG&E argues that "'data blurring' has been a key issue in past Commission energy data access proceedings."[269] PG&E states that there is a need for an accepted standard technique for data blurring because "there is no current consensus approved standard methodology for data blurring techniques, unlike there is with other information security techniques such as encryption."[270]

13.2. Discussion: Motion Denied

We have reviewed the EFF Motion, the two attachments, and the two responses in great detail. The attachments clearly present useful techniques for data blurring and the response of the Joint Parties presents a clear and compelling response. We believe that Commission action to determine acceptable data blurring techniques that permit a wider release of energy consumption data would advance the public interest. At this time, however, there is clearly a factual dispute over whether the proposed techniques for data blurring will eliminate many important uses of the data.

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[267] *Id.* at 3-4.

[268] Response of Pacific Gas and Electric Company (U 39 E) to Motion for Late Filing of Electronic Frontier Foundation, September 11, 2013, at 1.

[269] *Id.*

[270] *Id.* at 2.

This issue has arisen very late in this proceeding. Perhaps because of this, even with the addition of the late filing of EFF, the record of this process would not permit the adoption of data blurring techniques without further investigation, perhaps requiring evidentiary hearings. If there had been more of a record concerning data blurring techniques developed in this proceeding, it might have proved possible to release more data.

This decision, instead, crafts an approach to the release of data based on current law and practice. Concerning the particular uses of anonymous data in econometric analysis raised by the filing of the Joint Parties, we note that California law permits the disclosure of data with personal information to university researchers that comply with widely accepted research protocols that protect the privacy of individuals. Thus, the researchers at UCLA and UC Berkeley will be able to obtain full access to data, as set forth in the analyses of Use Cases 2 and 3 above.

At this time, we find the procedural arguments of the Joint Parties compelling. The proceeding did set a clear timetable for responding to the Working Group Report, and parties worked to meet the deadlines.

In addition, given the length and complexity of this proceeding, we find little attraction in permitting still more data and argument into the record. Had EFF presented this information in its opening comments on the Working Group Report, at this time we would have a fuller record on this matter and could, perhaps, have reached a different result. Since this did not happen, procedural fairness would require that if we elected to admit this data, then parties would be permitted another full round of comments and replies.

The record that we have developed in this proceeding supports the policies and procedures that we have adopted, and reopening the record would provide yet another case in which "the perfect is the enemy of the good."[271]

For all these reasons, we deny the EFF Motion. We suspect, however, that future proceedings on access to data will surely come before this Commission, and those proceedings will likely offer a venue for careful consideration of the data blurring techniques proposed by EFF.

14. Comments on Proposed Decision

The proposed decision (PD) of the ALJ in this matter was mailed to the parties in accordance with § 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure.

Comments on the PD were filed on March 27, 2014 by DECA, CSD, TURN, ORA, the Energy Producers and Users Coalition and the California Large Energy Consumers Association, filing jointly (EPUC/CLECA), EFF, CCSC/Energy Institute, LGSEC, SoCalGas, SCE, PG&E, SDG&E, and SolarCity. These comments were exceptionally extensive and thoughtful.

Reply Comments on the PD were filed on April 1, 2014, by ORA, SDG&E, TURN, CSD, SCE, LGSEC, and PG&E, CCSC/Energy Institute, SoCalGas, and IMT.

14.1. Comments on PD of CCSC/Energy Institute

CCSC/Energy Institute filed supportive comments, but asks for clearer definitions of the level of data granularity that utilities must provide to

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[271] This aphorism is attributed to Voltaire, who wrote in the poem, *La Bégueule*:

> *Dans ses écrits, un sage Italien*
> *Dit que le mieux est l'ennemi du bien.*

researchers and a clearer definition of usage related data.[272] In addition, CCSC/Energy Institute recommends "that the utility notify the Executive Director at the same time as it provides the researcher with the proposed schedule" for release of the data.[273]

In response, we find that it is reasonable to require utilities to provide energy usage and usage-related data at the level of granularity requested by the researcher when the researcher meets the requirements set forth in this decision. In addition, we clarify that usage-related data includes, but is not limited to, all billing data, all program participation and account information.

14.2. Comments on PD of PG&E

PG&E argues that the PD "omits major and significant California laws and precedents that govern access to energy usage and usage-related data, many of which were listed in Attachment B to the Commission's Privacy Rules decision, D.11-07-056."[274] PG&E identifies the California Constitution Article I, section 1, which guarantees the protection of privacy and the California Information Practices Act of 1977.[275]

In response, we note that both the California Constitution and the California Information Practices Act of 1977 have guided every aspect of the policies adopted in this decision but we decline to include additional references.

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[272] CCSC/Energy Institute Comments on PD at 3. We note that PG&E also seeks a clearer definition of usage-related data (PG&E Comments on PD at 3-4) and SCE also seeks clarification (SCE Comments on PD at 9).

[273] CCSC/Energy Institute Comments on PD at 4.

[274] PG&E Comments on PD at 2.

[275] *Id*.

PG&E also argues that "aggregation criteria should be consistent across all customer classes" and states that it needs "at least six months following the decision and Commission staff approval of data formats in order to 'go live' on the public website and database."[276] Concerning PG&E's request for 6 months to prepare for a web release of data, we revise our requirements to provide this additional time. We believe that it is prudent to provide the utilities with this additional time – to a total of 180 days – to ensure that the data is released in a safe and efficient manner.[277]

PG&E also requests that the Commission implement certain changes pertaining to the use cases. For Use Case 1, local governments seeking access to data, PG&E notes that "local governments are not subject to direct jurisdiction or enforcement of the Commission under the Commission's privacy rules or subject to the California Information Practices Act." In response, we note that under the data release approved in this decision, local governments receive aggregated and anonymous data subject to "terms of service" which prohibit subsequent release to a third-party. Violation of the terms of service would stop subsequent releases of data to the local government. We therefore see no reason for requiring a full NDA for this data.

Concerning Use Case 2, PG&E seeks clarification that "nothing precludes a utility from voluntary providing energy usage data to research institutions … as

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[276] *Id*. at 4-5.

[277] We note that SDG&E makes a similar request (SDG&E Comments on PD at 2), and SCE makes a similar request (SCE Comments on PD at 12).

authorized in Public Utilities Code Section 8380(e)(2) and the Commission's Privacy Rules."[278] We clarify that this is the case.

Concerning Use Case 4, Government Entities Seeking Access to Covered Data to Evaluate Legislatively Mandated Programs, PG&E seeks clarification that "federal or state agency access to confidential PII or non-PII data will require compliance with other applicable federal and state laws, as well as protection of market-sensitive and proprietary data."[279] We clarify that this is the case.

Concerning Use Case 9, CSD Proposal for Low-Income Energy Assistance Data Sharing, PG&E states that the PD "misstates applicable law."[280] PG&E argues that CSD "can and should obtain the consent of *existing* utility weatherization customers before access their personal data, in the same way CSD and the utilities have agreed to obtain customer consent as part of the initial enrollment of *new* customers."[281] PG&E recommends that "the PD be revised to require that any request by CSD, HHS or any other governmental agency for PII of low-income customers … go through the same Data Request & Release Process as requests by research institutions for PII data."[282]

In response, we believe that PG&E misinterprets applicable law. In particular, the Privacy Rules do not apply to disclosures "expressly authorized by state or federal law or by order of the Commission."[283] CSD's request is

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[278] PG&E Comments on PD at 6.

[279] *Id*. at 7.

[280] *Id*. at 9.

[281] *Id*.

[282] *Id*. at 10.

[283] D.11-070956, Attachment E, Privacy Rule 4(c)(1).

authorized by federal law. Furthermore, through the action of this decision, the Commission is ordering the release of information to CSD to meet statutory obligations.

Concerning the Data Request and Release Process PG&E recommends additional time (180 days) for the preparation of web portals, argues that the incremental costs associated with the web portal "may require significant incremental start-up expenditures to implement that have not previously been included in utilities' rates."[284] PG&E argues that the Commission should "authorize the utilities to establish memorandum accounts to track and record their incremental capital and expense related costs for implementing the PD, including the costs of DRRP. PG&E also argues that:

> Because the Commission has no authority to enforce the terms and conditions of data access directly against other governmental entities, and because of the California Constitution's imperative that personal data be protected against unauthorized use of disclosure, the PD should be revised to require local governments and other governmental agencies to execute standard NDAs for access to PII and non-PII data in the same way as other third-parties under the DRRP.[285]

In response, we have retained the 90-day deadline for the preparation of the web portal because we are not convinced that the simple form contemplated requires more time. Concerning PG&E's arguments pertaining to costs, we find PG&E's arguments that implementation of this program may generate costs

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[284] PG&E Comments on PD at 11.

[285] *Id*. at 11-12

incremental to current data disclosure to be plausible.[286] We have therefore modified the decision to authorize the utilities to establish memorandum accounts to track and record their incremental capital and expense related costs for implementing the PD. The utilities are authorized to seek recovery of these costs via an application or via a filing in a GRC. Recovery of such costs is not automatic, but requires a finding that the costs are both reasonable and incremental.

Finally, after expressing support for "the form and scope of the NDA proposed by the PD,"[287] PG&E recommends the addition of "key standard terms or provisions that are necessary to fully protect the PII and non-PII confidential data shared under the NDA."[288] In response, we have reviewed the proposed changes and incorporated them as we deemed necessary and useful.

14.3. Comments on PD of SDG&E

SDG&E states that it "supports the adoption of the PD with the inclusion of certain modifications."[289]

In particular, SDG&E provides extensive comments pertaining to the aggregation standards contained in the PD. We will use SDG&E comments and the related comments of other parties to discuss the issue of data aggregation here. Specifically, SDG&E argues.

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[286] Similar arguments were made by SDG&E (SDG&E Comments on PD at 8) and by SCE (SCE Comments on PD at 11).

[287] PG&E Comments on PD at 12.

[288] *Id*.

[289] SDG&E Comments on PD at 1.

> One of the most prominent aggregation standards for review during the working groups was the "15/15 Rule". The 15/15 Rule states that an aggregation sample must have 15 customers and no single customer's data may comprise more than 15 percent of the total aggregated data. The working group expressed doubts about the ability of the 15/15 rule to adequately protect customer privacy. The Electronic Frontier Foundation believes that the "15/15 Rule and similar well-intentioned standards unfortunately exhibit fundamental flaws that render them unable to effectively defend customer privacy." SDG&E applauds the CPUC for raising the threshold set for residential customers. However, the PD suggests a far lesser aggregation threshold for industrial, agricultural and commercial customers and orders the IOUs to post this aggregated data on a publically available website. There is no basis in the record for assuming these customers deserve lower levels of privacy protections than those afforded to residential customers. These customer classes have special competitive advantage concerns on top of traditional privacy concerns. In addition, these customer classes include military installations and governmental offices with particular national security concerns which further necessitate greater privacy protections.
>
> Therefore, SDG&E suggests the aggregation methodology for residential customers be also applied to industrial, agricultural and commercial customers as further discussed below.[290]

In addition to SDG&E, the aggregation standards adopted in this decision were remarked upon by several other parties. Utilities notably questioned the need for several standards and requested that the Commission adopt one standard for the public posting requirement.[291] Utilities, privacy advocates, and

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[290] *Id*. at 3-4 (references omitted).

[291] In addition to SDG&E (as cited immediately above), PG&E also made a similar argument (PG&E Comments on PD at 4-5).

the consumer advocates questioned whether the standards would in fact be adequate to protect customer privacy.[292] Finally, CLECA/EPUC questioned whether the percentage of load was sufficient to mask individual industrial customers. The Commission responds to each issue below.

The Commission denies the requests of the utilities to have one standard for aggregation of customers. There are significant variations in the number of customers in each customer class, and this shows up in the zip code level information. A zip code may have hundreds or thousands of residential customers, but may have only dozens of commercial customers and one or two industrial customers. In such a circumstance, utilizing a 100 aggregation standard per zip code for residential customers still provides meaningful public data, but such an aggregation standard for commercial or industrial customer would create little information of public use. Therefore, the Commission finds it reasonable that there should be different aggregation methodologies for customer classes as being more reflective of the actual number of customers per customer class.

Finding that multiple aggregation standards for the customer classes is reasonable, the Commission next addresses whether the standards themselves are reasonable. Utilities, consumer advocates, and privacy advocates all questioned whether the minimum number of customers provided sufficient aggregation for the public posting of zip code level information. Notably, utilities raised concerns regarding the ability to protect the privacy of industrial customers as well as protecting proprietary and confidential data.

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[292] In particular, see EFF Comments on PD at 3-5.

The Commission shares these concerns, and in the past has made data available pursuant to the 15/15 rule.[293] After reviewing the comments of SDG&E and other parties, we have revised the PD to retain a requirement of a minimum aggregation standard of fifteen customers per zip for residential, agricultural, and commercial customers.

In addition, we will change the load requirement from the PD, as requested by EPUC/CLECA, and retain the historic load requirement that no single customer in the group account for more than 15% of the aggregated total for commercial, agricultural and industrial customer classes. As a result of these two changes, we have modified the proposed decision to follow a 15/15 Rule for the public posting of data concerning commercial, industrial and agricultural data. We anticipate that more information, including procedures for masking data, will permit us to depart from this requirement in the future.

As it regards residential, commercial, and agricultural, no party has raised substantive reasons why the aggregation numbers (100 for residential, 15 for other classes) are themselves not sufficient. Parties have raised many concerns regarding the potential for re-identification, but have not raised any analytical support for changing these numbers as inappropriate. In particular, the argument proposed by some utilities to make 100 customers the aggregation standard for all customer classes did not demonstrate that a standard of 100 is needed. Therefore, absent an analytical showing that the aggregation of 15 commercial, agricultural and industrial customers, with a minimum load

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[293] See D.97-0-031. The Commission adopted this decision as part of Commission proceedings to restructure the electric utility industry and this decision has a special focus on the value of information in commercial markets.

requirement, will result in the re-identification of customers, the Commission is not convinced that this methodology should change the "15/15" aggregation standard that we have had in effect since 1997.

The Commission does encourage the regular review of these aggregation requirements by the EDAC as we gain experience and better understand threats of re-identification at various aggregation levels. In addition, advances in privacy protection and data masking may lessen the need to rely on aggregation to protect data.

We now turn to the issue of "customers" versus "accounts." SDGE notes that the PD "appears to make a distinction between 'customers' and 'accounts'"[294] and argues that sometimes a single customer may have multiple accounts, and recommends "the use of customers for aggregation levels and not accounts."[295] PG&E recommends replacement of "accounts" with "customers" in Appendix A of its Comments on the PD. EPUC/CLECA makes the same recommendation.[296]

The Commission agrees with the utilities and EPUC/CLECA that our measure should be customers and not accounts because it is a common occurrence for a single customer to have multiple accounts. We have therefore modified the proposed decision to ensure that our measure for aggregation pertains to customers, not accounts.

Concerning use cases, SDG&E recommends that the decision make both the researcher and the sponsoring faculty member responsible for carrying out

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[294] SDG&E Comments on PD at 4.

[295] *Id*. at 5.

[296] EPUC/CLECA Comments on PD at 3-4.

terms of the NDA. We find this recommendation reasonable and have made changes to the PD.

We note further that we have not raised the aggregation standards for data provided to local governments. Unlike the data released publicly on a utility's website, the data provided to local governments is subject to use terms which provide addition a protections against the inappropriate use of data.

14.4. Comments on PD of SCE

SCE also provides extensive comments on the PD, beginning with a statement of broad support: "The PD appropriately declines to require the IOUs to provide usage data for purposes not supported by the record of the proceeding, or for purposes better addressed in other proceedings."[297] SCE also argues that the PD's proposal to require that all those who receive customer-confidential energy usage data must adhere to protocols set forth in the California Information Practices Act "is superior to a method that would purport to place the IOU in that vetting role."[298]

SCE then proceeds to ask for a series of revisions to improve the clarity of the PD. Specifically, SCE argues that the PD should "define what constitutes multiple, overlapping data requests."[299] Furthermore, SCE objects to the Commission's decision to order the release of information to CSD. SCE requests "that the PD be modified to order disclosure of weatherization data only, not energy usage data, given that more appropriate methods of customer-specific

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[297] SCE Comments on PD at 4.

[298] *Id*. at 5.

[299] *Id*. at 6.

data disclosure are being pursued and are premised on customer consent."[300] In addition, SCE argues that an "NDA should be required for all Commission-mandated disclosures approved in a final decision."[301] SCE also asks for the PD "to state with specificity which usage-related" data is mandated to be disclosed pursuant to a final decision."[302] SCE also argues that "a formal complaint procedure, not an unrecognized 'petition' process, should govern binding disputes interpreting a final decision…."[303]

In response to these requests, we decline to define multiple overlapping data requests at this time because of the scarcity of the record on this matter. Utilities can raise this issue when confronted with such requests. Concerning the request of SCE for clarification of Use Case 9, which pertains to CSD, we clarify that CSD is entitled to both usage data and data on weatherization. Concerning SCE's arguments pertaining to the applicability of the NDA to those receiving data, we decline to require it of government agencies because the actions of these agencies are controlled by the California Information Practices Act, and we do not see the need at this time for an NDA. Concerning the definition of "usage-related" data, we have clarified this definition.

Concerning SCE's argument that a petition process is "unrecognized," SCE fails to understand the intent of the PD, and we take this opportunity to clarify. First, if a requestor of data believes that a utility denial is contrary to the clear terms of this decision and implementing tariffs, the requestor can initiate a

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[300] *Id*. at 7.

[301] *Id*.

[302] *Id*. at 8.

[303] *Id*.

complaint proceeding. Second, if a requestor feels that the requirements of this decision do not address the request clearly or do not address the request at all, the requestor can "petition the commission to adopt, amend, or repeal the regulation."[304] The process for doing this is set forth in the Commission's Rules of Practice and Procedure, Rule 6.3, Petition for Rulemaking. Third, if a utility or party to this proceeding believes that new facts or law require that the Commission should change this decision for any reason, it may file a Petition for Modification, as set forth in Rule 16.4 of the Commission's Rules of Practice and Procedure. The PD, perhaps inadvisably, used the word "petition" to refer to both forms of petition used before this Commission.

SCE also seeks changes and clarifications in the DRRP process. Specifically, SCE recommends that the requirement to execute an NDA for "Commission mandated disclosures of Covered Information and PII to *any* third party without customer consent, including state of federal agencies."[305] In addition, SCE asks that the "DRRP process … specify more clearly which of its sections apply to only the three categories of Use Cases for which Commission-mandated data disclosure was approved in the PD, *i.e.* disclosure of information to university researchers, local government entities, and state and federal agencies fulfilling statutory mandates."[306] SCE also proposes to decrease the time

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[304] § 1708.5.

[305] SCE Comments on PD. at 10. As discussed above, we note that PG&E also asks that the NDA requirement extend to "local government energy usage data access." (PG&E Comments on PD at 5.) We also note that SoCalGas requests that "all third parties requesting customer usage data should execute an NDA." (SoCalGas Comments on PD at 4.)

[306] SCE Comments on PD at 10.

for the Commission to review a proposed transfer of data from four weeks to two weeks, and asks that the PD "clarify that reports generated under existing utility tariffs are subject to established fees."[307]

In response, we have clarified that the execution of an NDA does not apply to government agencies receiving PII or to local governments receiving aggregated data. We have also taken steps to clarify the applicability of certain steps in the DRRP process. However, because of the newness of this program, we decline to limit the period for the Commission to respond to a proposed release of data to two weeks. We encourage the EDAC to review the four week requirement after we have gained experience with these guidelines and make other recommendations. Finally, we clarify that reports generated under existing utility tariffs are subject to established fees.

14.5. Comments on PD of SoCalGas

SoCalGas raises three questions concerning the aggregation standards contained in the PD. SoCalGas argues that there is no justification to "apply more stringent aggregation requirements concerning the release of residential data, compared to the lesser requirements governing the release of commercial and industrial customers' data."[308] SoCalGas argues that there should be only "one, consistent aggregation standard."[309] Finally, SoCalGas argues that "there is no certainty that the proposed aggregation standards will in fact prevent the identification of data on individuals or businesses."[310]

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[307] *Id*. at 13.

[308] SoCalGas Comments on PD at 2.

[309] *Id*.

[310] *Id*. at 3.

In response, the PD now notes that the availability of many residential customers makes it possible to set an aggregation requirement of 100 without any diminishment to the utility of the data, and that this consideration is the rationale for the different aggregation threshold. Concerning the aggregation standards contained in the PD, based on comments and further considerations, we have changed the standard (as discussed above) to follow that 15/15 aggregation rule currently in use for publicly released data. Thus, there are now two aggregation standards – one for residential customers, and another for commercial and industrial customers.

SoCalGas, as noted above, asks that the execution of an NDA apply to all third party requests for data. In addition, SoCalGas proposes extensive revisions to the NDA.

In response, we have explained above our reasons for not requiring an NDA from state and federal government agencies, and the separate reason for not requiring an NDA from local government. Concerning the proposed revisions to the NDA, we note that we have considered SoCalGas's proposals and made extensive revisions.

SoCalGas requests a postponement in the public posting of its aggregated usage data because it is still deploying its advanced meters, which will give it the capability of reporting usage by month. In addition, SoCalGas notes that it "does not have a separate Agriculture rate for its agriculture customer class."[311] SoCalGas also asks for additional time for implementing the website portal. Finally, SoCalGas asks for the ability to recover implementation costs.

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[311] *Id*. at 8.

In response, we allow SoCalGas to make approximations for monthly data based on their current monthly billing data. We also clarify that SoCalGas need post information only for the customer classes that it has. As noted previously, we see no reason to provide additional time for implementing the website portal. Finally, we note that we have altered the PD to permit the tracking and recovery of reasonable and incremental implementation costs.

14.6. Comments on PD of EPUC/CLECA

EPUC/CLECA argues that "the proposed decision permits public disclosure of sensitive industrial customer information."[312] EPUC/CLECA recommends three modifications to the aggregation rules:

> 1. Apply the aggregation rules based on the number of "customers", rather than "accounts", because some customers may hold multiple accounts. Affiliated entities should be considered a single customer for purposes of applying the rules.
>
> 2. Prohibit publication of industrial usage data if either (rather than both) of the thresholds specified by the PD – the number of customers and the percentage threshold for a single account – is met.
>
> 3. Lower the threshold for the percentage of consumption that may be represented by a single customer from 25% to 15%.[313]

EPUC/CLECA also identified inadvertent errors in the logical use of "and" and "or."

In response, we note that the PD was revised so that aggregation standards apply to customers, not accounts. In addition, based on the comments of many parties, the aggregation standards are not changed to reflect the 15/15 rule that

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[312] EPUC/CLECA Comments on PD at 1.

[313] *Id*. at 2.

the Commission currently uses. Finally, we have reviewed our use of the logical connectives "and" and "or" to insure that the decision now reflects our intention to protect the privacy of customers.

14.7. Comments on PD of ORA

ORA states support for "the Commission's deference for local and state agencies' mandatory access to energy use data as required under federal law."[314] Similarly, ORA states support for the Commission's denial of requests for data "as posited in Use Cases 5, 6, 8, 11 and 12."[315]

Concerning Use Case 1, ORA argues in support of the "15/15 method of aggregation" and asks that the Commission "order utilities to aggregate energy usage data by census block."[316]

In response, we note that as revised, the decision now supports the 15/15 method of aggregation for publicly released data pertaining to commercial, industrial and residential customers. We also order the utilities to aggregate usage data by census block when requested by local government.

ORA asks that the Commission require researchers to show that research "directly benefits California ratepayers and clarify obligations under the California Information Practices Act."[317]

In response, we decline to require researchers to demonstrate direct benefits to ratepayers from particular research. Research is full of risk, and such a demonstration of direct benefits is inappropriate. It is sufficient that the

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[314] ORA Comments on PD at 1.

[315] *Id*.

[316] *Id*. at 1-2.

[317] *Id*. at 2.

research focus on matters pertaining to the public interest. Concerning the obligations on researchers, we note that the requirements adopted in this decision follow the California Information Practices Act word for word.

ORA further argues that "utilities should be authorized to recover costs through an application process and to charge data recipients"[318] ORA also recommends that "informal arbitrations of data access disputes should remain with the Commission to ensure consistent and reliable outcomes."[319] Finally, ORA recommends that the "Commission strengthen the security breach protocol to remove noncompliant data recipients from the list of eligible recipients and add language clarifying liability and enforcement in the event of data breaches."[320]

In response, we note that the decision now authorizes utilities to record their costs to a memorandum account and to apply for recovery through an application or a GRC. At that point, ORA may raise the issue of whether it is appropriate to charge data recipients. At this time, there is no reason to change from our current approach, which provides data without charge in many circumstances. Concerning ORA's recommendation that dispute resolution should remain with the Commission, we reject this approach and prefer that the parties initially try to resolve disputes through discussion. We note, however, that this decision now clarifies that parties can request the Commission to resolve a dispute either through the complaint or petition process. Further, although we see no need to create a formal list to remove non-compliant data recipients, the

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[318] *Id.*

[319] *Id.*

[320] *Id.*

review of a pending data transfer by the executive director will enable the Commission to stop transfers of data to those who fail to protect privacy. Finally, the revised NDA adds language clarifying liability and enforcement in the event of data breaches.

14.8. Comments on PD of TURN

TURN provides two pages of comments arguing that the "PD's rules for releasing energy usage data to research institutions lack sufficient safeguards."[321] TURN states that it "repeats its request that any researchers who are given access to protected customer information be required to post a bond that would be available to help consumers who are the victim of a data breach."

In response, we note that we have revised the PD to make clear that researchers must follow the provisions of state and federal law that seek to protect the privacy of data involved in research. In California, these standards are incorporated into the California Information Practices Act, and the requirements we impose on researchers follow these requirements to the letter. Concerning the proposal to require the posting of a performance bond, we decline to impose such a requirement at this time. We have, however, modified the NDA to make clear who bears responsibility and liability for data breaches.

14.9. Comments on PD of LGSEC

The comments of the LGSEC are generally supportive of the PD, but call for certain changes.

LGSEC argues that "local governments must be able to provide data to contractors."[322] LGSEC notes correctly that the PD does not require the execution

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[321] TURN Comments on PD at 2.

[322] LGSEC Comments on PD at 2.

of an NDA with local government because the data released is aggregated, but expresses a willingness to enter into an NDA similar to the one ordered for academic researchers. Further, LGSEC asks that the PD explicitly "allow publication of derivative works based on the energy usage data for local government reports and plans."[323] Finally, LGSEC asks that "no waiting period is needed before releasing data."[324]

In response, we clarify that there is no prohibition against providing data to contractors. Contractors are not deemed third parties, but are deemed agents of the entity receiving the data. They are therefore subject to the all the privacy and disclosure protections placed on the recipient of the data, and the recipient of the data retains responsibility and liability for failures of its contractors to follow the data protection and disclosure rules to which the recipient is subject. On the matter of the NDA, LGSCE is correct that for the aggregated data which the Commission is releasing to local government, we do not see the need for the execution of an NDA. Finally, there is no prohibition against the publication of derivative works based on the energy usage data as long as the report does not disclosure the energy usage data in a "raw" or "unprocessed" fashion or in a way that permits the identification of individuals. Finally, concerning the waiting period before the release of data, this decision has modified the PD so as to shorten the time period before releasing the data.

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[323] *Id*. at 3.

[324] *Id*.

LGSEC argues that "partnerships with university research institutions should be available to interested local governments."[325] In response, we note that there is no restriction on such a partnership in this decision.

LGSEC argues that access to "historical and energy cost data should be provided, as well."[326] LGSEC also expresses support for the aggregation requirement of 15/20 adopted in the PD and notes that other utilities across the US have lower aggregation thresholds. In response, we note that there is no prohibition on access to historical data, but there is little, if any, record on the availability of historic data in this proceeding.

LGSEC argues further that the Commission should order the release of data at a zip code +2 level or Census Block Group, noting that a zip code may contain over 20,000 customers. Furthermore, LGSEC argues that solar data should be included in usage reports provided to local governments. In response, we note that this is a first step in making usage data widely available and the cautious approach that limits the posting on a website to zip level data is prudent. Concerning the release of energy usage data on solar customers to local governments, we decline to take that step at this time because of the ease of using information such as that contained in google earth to identify in a group of 15 homes those with rooftop solar.

LGSEC also provides a long series of arguments asking for access to building data for building benchmarking purposes. The PD has noted that this is

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[325] *Id*. at 4.

[326] *Id*.

a program overseen by the CEC and recommends that LGSEC bring its arguments to the CEC.

Finally, LGSEC argues that the EDAC must include local government. In response, we note that our decision adopts no restrictions on membership and we note that we have clarified procedures for bringing issues before the Commission.

14.10. Comments on PD of EFF

EFF provides comments broadly supportive of the PD. EFF supports a "streamlined" DRRP and the fact that "aggregation standards are subject to revision."[327] Specifically, EFF supports the formation of the EDAC and states that it "hopes to participate on the EDAC is its role as privacy advocate."[328]

EFF, however, states that it does not "support the Proposed Decision's treatment of several of the use cases."[329] Specifically, EFF opposes the release of granular data to researches as ordered in the PD in Use Case 2 and Use Case 3. Further, EFF states that "EFF is concerned that the proposed aggregation standards set forth in Sections 6.2 and 7.1.3 of the Proposed Decision will not prevent re-identification of individuals or individual entities."[330]

In response, we note that we have changed the aggregation standards adopted in Section 6.2, which apply to publicly released data that lack identifying characteristics, to 100 customers for residential customers, and we follow the 15/15 Rule long in use. We have not changed that aggregation

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[327] EFF Comments on PD at 1.

[328] *Id*. at 2.

[329] *Id*. at 1.

[330] *Id*. at 2.

standards for the release of data to local governments from that contained in the PD, but we note that the data released to local governments is subject to both use and disclosure restrictions.

Finally, EFF raises some technical legal issues that arise for overly-broad statements in the PD. We have made revisions to narrow our findings so that they narrowly support the determinations made.

14.11. Comments on PD of Solar City

Solar City expressed disappointment with the PD. Specifically, Solar City states:

> Unfortunately, while the Proposed Decision provides a path forward for some entities to gain access to customer data, primarily to support academic and governmental research and evaluation efforts, it does not advance the current status of data access by energy management solution providers, who are in the front lines and critical partners in the state's efforts to actually modify customer consumption behavior and energy demands through the deployment of enabling technologies.[331]

In addition, SolarCity argues that the decision, based on the comments of TURN and PG&E, "fail to acknowledge the salient features of SolarCity's proposal."[332]

In response, we see no reason to change our conclusion that we lack a basis for providing SolarCity access to the data that it requests at this time, and based on the record in this proceeding.

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[331] Solar City Comments on PD at 3.

[332] *Id*. at 4.

14.12. Comments on PD of NRDC

NRDC, concerning Use Case 7 (the process for a building owner to receive whole-building usage data), asks "the Commission to describe more precisely the two open questions that the CEC is expected to address."[333] NRDC describes question 1 as "What level of aggregation reasonably protects whole building data from disaggregation so that it could be deemed 'fully anonymous' data and revealed to a requesting third-party without running afoul of Section 8380?"[334] NRDC describes question 2 as:

> Is a lower standard of aggregation (i.e., a number of tenants somewhere between 1 and "fully anonymous") suitable for delivery to certain building owners in light of their unique interests in the data for energy management, EE, efficiency program participation, and benchmarking obligations, so long as obtaining the information is subject to the building owner agreeing to certain terms of use, such as signing a non-disclosure agreement, meeting eligibility requirements, and other terms and conditions?[335]

IMT expresses support for this position (which is also supported by LGSEC), and likewise "urges the Commission to provide utilities with more guidance on providing whole-building usage data to building owners."[336]

In addition, NRD states that it

> Encourage[s] the Commission to include in the Final Decision a limited conclusion on the key policy question (a) so the open question is framed for the CEC to make further

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[333] NRDC Comments on PD at 2.

[334] *Id*. at 3

[335] *Id*.

[336] IMT Reply Comments on PD at 1.

> determinations, and (b) to provide greater regulatory certainty for utilities until the CEC issues applicable guidance.

In response, we decline to reach any conclusions that would constrain the CEC. Finally, NRDC encourages the Commission to consider allowing certain regulated financial institutions, lending institutions, and the California State Treasurer's office with access to data.[337] At this time, there is no record to order or even encourage such a release. If another agency, such as CAEATFA, requested data under state or federate statute and the procedures set forth in this decision, then utility should follow requirements in this PD to determine whether and how to release the data.

14.13. Comments on PD of CSD

In comments on the PD, CSD notes that the PD failed to discuss the fact that in addition to the need CSD has to provide data on a regular basis to the U.S. Department of Health and Human Services, that "Use Case 9 is based largely on the mutual data-sharing objectives established in the 2009 Memorandum of Understanding between the Commission and CSD for the purpose of enhancing coordination of CSD's federal low-income energy programs and the utility low-income programs which, it can be argued, constitutes a primary purpose of the Commission."[338]

In light of this status, CSD argues that the decision should address weatherization data in a different fashion that that proposed in the DRRP. CSD notes that its requests for data will be ongoing, and asks that the DRRP procedures:

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[337] NRDC Comments on PD at 7-9.

[338] CSD Comments on PD at 2.

> only be utilized in an initial filing of a request for usage data and that abbreviated periodic activity reports be submitted thereafter to the Executive Director by the utilities in order to comply with the requirements of Civil Code §1798.25. In the case of weatherization data and reciprocal data exchanges via a mutual data base, the utilities should be free to comply with the request and to submit informational reports or updates at the direction of the Commission.[339]

In response, we find that there is no purpose served in requiring the CSD or other entities making ongoing requests for information to go through the DRRP and notification process every month. Therefore, we have amended the DRRP to require that the utility and the receiving entity, including CSD, following approval of its initial request, should inform the Commission on a quarterly basis that transfers are continuing and update the notification data. No waiting time will be necessary for subsequent data releases, unless there is a change in the request. We therefore modify the DRRP to reduce the paperwork burden arising from ongoing requests for data..

14.14. Comments on PD of DECA

DECA states that it "is broadly supportive of the direction and intent of the Proposed Decision and recommend the Commission adopt it with only minor changes."[340] Specifically, DECA makes two requests:

> DECA recommends all Ordering Paragraphs that reference utility data processing and Commission approval be modified to allow for expedited processing by the utilities, the Commission's executive director or designee for "me

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[339] *Id*. at 5.

[340] DECA Comments on PD at 2.

> too"requests made by similarly situated entities requesting previously requested and approved data.[341]

and,

> DECA strongly supports opening an expedited proceeding to establish a mechanism for establishing a data cube or similar mechanism to provide relevant interval data on via a mechanism that does not require data request approval processes.[342]

In response, we note that although we have not approved a "me too" process, we have adopted several changes to expedite the process for obtaining access to data. We anticipate that the Commission will make further changes as time goes on. Finally, we note that the Commission is interested in investigating the merits of using a data cube or similar privacy protection measure that will permit wider access to energy usage and usage-related data.

14.15. Comments on PD of CEEIC

CCEIC provides comments in support of the PD. Specifically, CCEIC states:

> We support the current efforts by the Commission, Working Group, and other parties to increase the safe and secure access to energy usage and usage-related data.[343]

And

> We encourage the Commission, Investor-owned utilities (IOUs) and stakeholders to continue the work to explore appropriate mechanisms and pathways for third-party organizations (such as EE program implementers, contractors, installers, and evaluators, etc.) to have access to energy usage

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[341] *Id.*

[342] *Id.*

[343] CCEIC Comments on PD at 3

and usage-related data, through this and/or other relevant proceedings.[344]

15. Assignment of Proceeding

Michael R. Peevey is the assigned Commissioner and Timothy J. Sullivan is the assigned ALJ in this proceeding.

Findings of Fact

1. The data generated by the Smart Grid on energy usage, when combined with other usage-related data, if used appropriately, can advance energy policies pertaining to energy conservation, efficient energy use, and the use of renewable energy resources.

2. Usage-related data includes, but is not limited to, all billing data, all program participation data, and account information, including address and climate zone.

3. The deployment of advanced meters in California and the development of a Smart Grid increase the quantity and quality of information on energy consumption that is available to utilities operating electric and gas distribution networks.

4. It is reasonable and useful to define "aggregated data" as customers' energy usage and usage-related data (such as, billing, program participation, or account information) that has been summed, averaged, or otherwise processed such that the result does not contain information at the level of individual customers and an individual customer cannot reasonably be re-identified.

5. It is reasonable and useful to define "anonymous" data as customers' energy usage and usage-related data (such as, billing, program participation, or

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[344] *Id*. at 4.

account information) at the level of individual customers, scrubbed or altered such that an individual customer cannot reasonably be re-identified.

6. It is reasonable and useful to define "covered information" as any usage information obtained through the use of the capabilities of AMI when associated with any information that can reasonably be used to identify an individual, family, household, residence, or non-residential customer, except that covered information does not include usage information from which identifying information has been removed such that an individual, family, household or residence, or nonresidential customer cannot reasonably be identified or re-identified. Covered information, however, does not include information provided to the Commission pursuant to its oversight responsibilities and statutory obligations.

7. It is reasonable and useful to define "personal information" as any information that identifies, relates to, describes, or is capable of being associated with, a particular individual, including, but not limited to, his or her name, signature, social security number, physical characteristics or description, address, telephone number, passport number, driver's license or state identification card number, insurance policy number, education, employment, employment history, bank account number, credit card number, debit card number, or any other financial information, medical information, or health insurance information. Personal information does not include publicly available information that is lawfully made available to the general public from federal, state, or local government records.

8. The availability of energy usage and usage-related data can advance the policy goals envisioned for the Smart Grid, as well other goals.

9. The increased availability of information concerning electricity usage will better enable the Commission and California to promote EE, demand response, and the California economy.

10. Energy data can enable new and innovative services and offerings for customers.

11. There is a public interest in providing access to energy usage and usage related data when such access does not raise issues pertaining to customer privacy or issues pertaining to other statutorily recognized data protections. .

12. The two main security risks associated with releasing aggregated data are 1) privacy attacks using multiple queries on data; and 2) privacy attacks using pre-existing information about an individual customer.

13. High level aggregated data will prevent the identification of an individual customer, and therefore is not subject to disclosure restrictions arising from personal privacy considerations.

14. To ensure the wide availability of certain types of energy data that is both releasable and of interest to the public, it is reasonable to direct the utilities to make publically available certain energy data that meets the aggregation standard set forth below without requiring an NDA, and to post this data on a publically available portion of their website.

15. For residential customers, data stripped of personal identifying information and aggregated to a monthly time period and aggregated to the zip code geographic level, where a zip code has 100 or more residential customers, is sufficiently aggregated to prohibit re-identification. It is reasonable to require the public release of this data.

16. For residential customers, data stripped of personal identifying information and aggregated to a monthly time period and aggregated to the zip

code level, should, when the zip code lacks 100 residential customers, be aggregated with the data from a bordering zip code (either by adding it to a bordering zip code with 100 or more customers or by adding bordering zip codes to equal 100 or more customers) until the aggregation includes at least 100 residential customers. When the resulting area contains 100 or more residential customers, that data is sufficiently aggregated to prevent re-identification. It is reasonable to require the public release of such data.

17. For commercial or agricultural customers, data stripped of identifying information and aggregated to a monthly time period and aggregated to the zip code geographic level, where a zip code has 15 or more commercial or agricultural customers and no single customer constitutes more than 15% of total consumption, then that usage data is sufficiently aggregated to prohibit re-identification. It is reasonable to require the public release of this data.

18. For commercial or agricultural customers, stripped of personal identifying information data and aggregated to a monthly time period and aggregated to the zip code level, should, when the zip code lacks 15 or more commercial or agricultural customers or a single customer constitutes more than 15% of total consumption, be aggregated with the data from a bordering zip code (either by adding it to a bordering zip code with 15 or more commercial or agricultural customers or by adding bordering zip codes to equal 15 or more commercial or agricultural customers) until the aggregation includes at least 15 commercial or agricultural customers and no customer constitutes more than 15% of total consumption, then that data is sufficiently aggregated to prevent re-identification. It is reasonable to require the public release of such data.

19. For industrial customers, data stripped of identifying information and aggregated to a monthly time period and aggregated to the zip code geographic

level, where a zip code has 15 or more industrial customers and no single customer constitutes more than 15% of total consumption, then that usage data is sufficiently aggregated to prohibit re-identification. It is reasonable to require the release of this data.

20. For industrial customers, data stripped of identifying information and aggregated to a monthly time period and aggregated to the zip code level, should, when the zip code lacks 15 or more industrial customers or a single customer constitutes more than 15% of total consumption, be aggregated with the data from a bordering zip code (either by adding it to a bordering zip code with five or more industrial customers or by adding bordering zip codes to equal five or more commercial or agricultural customers) until the aggregation includes at least 15 industrial customers and no customer constitutes more than 15% of total consumption, then that data is sufficiently aggregated to prevent re-identification. It is reasonable to require the release of such data.

21. To encourage the use of energy usage and usage-related data, it is reasonable to require that the data be made available in a common data format(s), developed by the utilities in consultation with Commission Staff, that includes zip code, customer class, and, for each month, the number of customers, total consumption, and average consumption. At least one format must be machine readable.

22. To encourage the timely use of data, it is reasonable to require the first posting of this information shall be no later than 180 days after adoption of this decision, and shall include data for the prior 12 months. Subsequent data updates shall be posted on a calendar quarterly basis by the 15th day of the following quarter

23. The public release of energy usage data aggregated over zip codes as described herein prevents the re-identification of the energy use of individuals, individual commercial firms, individual agricultural entities or individual industrial enterprises.

24. The bulk of the record in this proceeding addresses specific requests for information, termed "use cases." There are 12 use cases under consideration.

25. This decision has sought to address the types of requests for usage and usage-related data of particular interest to the parties in this proceeding. For the "use cases" of special interest to parties, this decision defines clearly the types of requests included in each use case and decides whether and how to provide access to that data.

26. LGSEC states that in most instances, local governments need only monthly data.

27. Under Use Case 1, local government seek access to: 1) aggregated data that can be used to illustrate the status of progress toward adopted energy and GHG reduction goals, such as total monthly residential use at the census block group level; 2) aggregated data that can be used to illustrate the outcomes of a specific energy program; and 3) granular level data on a monthly usage basis that provide insight into how energy use changes as properties participate in programs.

28. When energy consumption data requested by local government entities pertaining to residential, commercial or agricultural customers is aggregated over a census block group or other grouping and stripped all personal identifying information, then this consumption data cannot be re-identified when the census block group contains more than 15 customers and no single customer accounts for more than 20% of the total energy consumption of the

census block group or grouping in a single month. The data should be aggregated to a least the monthly level. It is reasonable to require the release of such information to requesting local government entities under the terms of service protections adopted in this decision.

29. When energy consumption data requested by local government entities pertaining to industrial customers is aggregated over a census block group or other grouping and stripped of all personal identifying information, then this consumption data cannot be re-identified when the census block group contains more than five customers and no single customer accounts for more than 25% of the total energy consumption of the census block group in an individual month. This data should be aggregated to a least the monthly level. It is therefore reasonable to require the release of such information to requesting local government entities under the terms of service protections adopted in this decision.

30. It is reasonable to limit the release of data aggregated at the census block group level to those situations which serve a public purpose and to prohibit the subsequent disclosure of the this data by local government entities receiving the data.

31. It is reasonable to require utilities to provide aggregated census block data to local government as outlined above, as long as the data from known solar customers are not included because such atypical consumption patterns can facilitate identification.

32. When requested by local government entities, residential, commercial, agricultural energy consumption data, anonymized over a group consisting of 15 customers in a single customer class and stripped of all personal identifying information, cannot be re-identified when the group contains 15 or more

customers and no single customer accounts for more than 20% of the total energy consumption of the census block group in an individual month. Such data should be aggregated to a least the monthly level. It is therefore reasonable to provide this data to local government entities that request it under terms of service.

33. When requested by local government entities, industrial energy consumption data, anonymized over a group consisting of five customers in a single customer class and stripped of all personal identifying information, cannot be re-identified when the group contains five or more customers and no single customer accounts for more than 25% of the total energy consumption of the census block group in an individual month. Such data should be aggregated to a least the monthly level. It is therefore reasonable to provide this data to local government entities that request it under terms of service.

34. Residential, commercial, agricultural, or industrial energy consumption data, anonymized over a group consisting of 100 accounts in a single customer class and stripped of all personal identifying information, cannot be re-identified when the group contains more than 100 accounts and no single account amounts to more than 10% of the total energy consumption of the census block group in an individual month. Such data should be aggregated to at least the monthly level. It is therefore reasonable to provide this data to local government entities that request it.

35. Since multiple, overlapping requests for data by the same request is a technique that can be used to re-identify consumption data, it is reasonable to prohibit multiple requests for overlapping data from local governments.

36. It is reasonable to require that local governments specify the need and purpose of obtaining the data ordered to be disclosed in this decision and to

ensure no subsequent disclosure of that data. It is also reasonable to require them to follow the procedures set forth in Attachment A.

37. There has not been a sufficient showing that ordering utilities to provide cities with information on the usage of individual buildings meets the standards required set forth in California law.

38. Research into the effectiveness and efficiency of EE, DG and renewable energy programs is critical if California wishes to maintain its status as a national leader in these energy program areas.

39. Access to granular data on energy consumption is granted inconsistently across the state by different utilities and without clear criteria, individual utilities may disagree over whether to provide projects with data access.

40. Making data more widely available to researchers in non-profit educational institutions under strict eligibility and confidentiality rules will permit better analyses of California energy policies while protecting the privacy of consumers and ensuring that security protocols are followed.

41. It is reasonable to require that researchers possess all of the following qualifications in order to be eligible for access to covered energy consumption data: 1) The researcher is affiliated with a non-profit college or university accredited by a national or regional accrediting agency and the accrediting agency is formally recognized by the U.S. Secretary of Education; and 2) The researcher is a faculty member or is sponsored by a faculty member from such an institution and the researcher and the sponsoring faculty members are responsible for carrying out the terms of the data release and a non-disclosure agreement.

42. It is reasonable to require that, in order to receive access to covered energy consumption data, the research project and the researcher should fulfill the

following conditions: 1) The researcher should demonstrate that the proposed research will provide information that advances the understanding of California energy use and conservation. Research may include, but is not limited to, analysis of the efficacy of EE program, or demand response programs, or the quantification of the response of electricity consumers to different energy prices or pricing structures. In addition, research pertaining to greenhouse gas emissions, the integration of renewable energy supplies into the electric grid, and the analysis of grid operations are also topics vested with a public interest and will advance the understanding of California energy use and conservation. In addition to these research topics, research tied to any energy policy identified in the Public Utilities Code as serving a public purpose is also appropriate; 2) The researcher should follow the protocols set forth in the California Information Practices Act for additional safeguards. Therefore the University of California researchers or researchers associated with a non-profit educations institution that seek data containing PII must demonstrate compliance with the provisions of Civil Code § 1798.24(t); and 3) The project should be certified to be in compliance with the federal government's "Common Rule" for the protection of human subjects by an "Institutional Review Board," as defined in the National Science Foundation's Code of Federal Regulations 45CFR690: Federal Policy for the Protection of Human Subjects. (For research undertaken by members of the University of California, researchers must demonstrate approval of the project by the CPHS for the CHHSA or an institutional review board, as authorized in paragraphs (4) and (5) of Civil Code § 1798.24(t).) Specifically, the review board must accomplish the specific tasks identified in Civil Code § 1798.24(t)(2).

43. To ensure protection of privacy, it is reasonable to require that qualified researchers seeking information to sign a non-disclosure agreement with the

utility prior to receiving covered information that makes clear that recipients of the data will comply with California law and accept liability for data breaches or prohibited disclosures.

44. It is reasonable to require that utilities provide energy usage and usage-related data at the level of granularity requested by the researcher and with personally identifiable information without customer consent to researchers that meet the requirements set forth in Findings of Fact 42 through 43.

45. It is reasonable to require that when a utility provides data to eligible academic researchers that it provide this Commission with a description of the information disclosed, and the name, title and business address of the researcher and institution to whom the disclosure was made in a letter to the Executive Director at least four weeks prior to the transfer.

46. The record developed in this proceeding does not support the provision of data on individual users to researchers unaffiliated with academic institutions at this time.

47. It is reasonable to require that state agencies and local government entities seeking energy usage and usage-related data containing PII pursuant to the authority of this Commission use the data request and release process outlined in this decision.

48. The record in this proceeding is inadequate to support the provision of energy usage and usage-related data to third-parties in order to support financing decision making on EE programs without customer consent.

49. The provision of access to customer information for a specific energy program is best considered in Commission proceedings related to the specific energy program.

50. Utilities are unable and should not be required at this time to serve as a proposed "neutral intermediary" responsible for processing customer data and communicating with customers to foster the deployment of distributed renewable energy and EE improvements at customer's homes.

51. It is impractical to put utilities in the novel relationship of data intermediary, as proposed by SolarCity, with the utility's customers without the consent of the customer.

52. SolarCity can obtain access to customer usage and usage-related data with a customer's consent.

53. At this time, the utilities in California are unable to put in place an anonymization algorithm that would permit access to individual usage and usage-related data in a way that would prevent the release of PII.

54. There is no record in this proceeding that would support the adoption of a specific anonymization algorithm to protect PII at this time.

55. CSD reports that the HHS, the funding agency of LIHEAP, has increased reporting requirement concerning energy usage of low-income families.

56. CSD has identified a series of reports required by federal law or regulation that it must make to the HHS services that require monthly customer usage and cost data.

57. Much of the information collected by energy utilities associated with low-income programs is derived from Smart Grid Technologies.

58. The use of energy usage data by CSD to prepare reports required by the federal government and to assess the effectiveness of low-income EE programs are uses compatible with the purpose for which the information was collected because the assessment of energy usage and EE programs are purposes for which energy usage data are collected.

59. It is reasonable to order the transfer of the energy usage data and the usage-related data pertaining to weatherization requested by CSD to prepare reports and to assess the effectiveness of low income programs.

60. It is reasonable to require a utility before transferring energy usage data to the CSD to provide a letter to the Commission with a description of the information to be disclosed and the name, title, and business address of the agency to whom the disclosure was made.

61. Use Case 10 seeks to require the provision of information concerning HVAC systems installed in California to the CEC.

62. There is no foundational information in the record of this proceeding as to whether a utility keeps the serial numbers of HVAC equipment that customers install.

63. There is insufficient record in this proceeding to require the provision of HVAC serial numbers to the CEC.

64. Use Case 12 consists of a request by DECA for access to usage data for the purpose of developing a model of the grid to support DG.

65. Use Case 12 proceeds from the assumption that personal information is not revealed if data released has a low probability of being the actual usage data of any one person or firm. Use Case 12 involves a randomization of sub hour energy data at the meter level that a utility would perform before providing the data.

66. The randomization and aggregation techniques that are a key part of Use Case 12 are difficult to administer and impractical at this time.

67. There is no record in this proceeding concerning the effectiveness of the data obscuring techniques proposed as part of Use Case 12.

68. It is not reasonable to require energy utilities to provide the information requested in Use Case 12 at this time.

69. The Working Group Report stated the need for a process to streamline access to energy data.

70. There is a clear need to enable eligible third-parties to request access to energy data via a common and consistent process across utilities.

71. The Working Group reports that the utilities participating in the proceeding jointly submitted a "straw" proposal for streamlining and improving the data access process.

72. A common, consistent and streamlined process for accessing energy data will ensure that there is transparency in the process for making a data request, that the schedule for responding to data requests is predictable, and that parties have access to an informal, non-binding means to address any disputes between the utility and third party.

73. The DRRP set forth in Attachment A to this decision adopts with modifications the process proposed in the Working Group Report.

74. It is reasonable for utilities to make available an energy data request portal on each utilities website to receive requests for the release of energy data, list details of data requests, and track the utility's response to the requests for data.

75. It is reasonable to require that utilities file a Tier 2 Advice Letter within 90 days after the adoption of this decision that provides details on the creation of the web portal and require the implementation of the web portal within 90 days of the effective date of the Advice Letter by the Commission.

76. It is reasonable to require the energy utilities to file a Tier 2 Advice Letter establishing the DRRP contained in Attachment A to this decision, effective when the advice letter is approved.

77. The Working Group Report proposes the creation of an "Energy Usage Data Access Advisory Committee" to review and advise on the implementation of the utilities' energy usage data access programs, and to consider informally any disputes regarding energy usage data access and make other informal advisory recommendations regarding technical and policy issues related to energy usage data access.

78. It is important to establish a process for resolving disputes concerning access to data that may arise between utilities and those requesting data.

79. It is reasonable to require the utilities to collaborate with the Commission, CEC, and ORA to establish the Energy Data Access Committee within six months of this decision's adoption by the Commission. We clarify that any party with an interest in data is eligible to serve on the committee. We recommend the inclusion of the CEC on the Energy Data Access Committee.

80. ORA points out the importance of establishing a process for resolving disputes concerning access to data that may arise between utilities and those requesting data.

81. The Commission's expedited complaint process is an inappropriate procedural vehicle for resolving disputes over access to data,

82. The Commission's petition process is a reasonable and practical way for parties who dispute a decision by a utility that the data requested fails to conform to an approved use case to bring the matter before the Commission.

83. No data will be released to any party pursuant to this decision less than 4 weeks after a letter to the Commission's Executive Director describing the transfer of data is transmitted.

84. A non-disclosure agreement can offer additional privacy protection and it is reasonable to require use of a non-disclosure agreement in conjunction with the transfer of identifiable customer data or other confidential to researchers.

85. Under the disclosure process set forth in this decision, a non-disclosure agreement is not needed by state agencies seeking access to data to comply with a state or federal law since laws govern the use of information by such agencies.

86. It is reasonable to deny the EFF Motion to provide addition information on data blurring techniques because of the lateness of the motion and because this decision limits its release of data to situations where a blurring methodology is not needed.

87. Since the costs of providing data access are uncertain and could be substantial, it is reasonable to authorize PG&E, SCE, SDG&E and SoCalGas to establish a memorandum account to record the incremental costs associated with providing access to energy usage data and to subsequently seek recovery of those costs through application or General Rate Case.

Conclusions of Law

1. Section 701 of the Pub. Util. Code provides the Commission with broad authority over public utilities in California.

2. Section 701.1 of the Pub. Util. Code sets the encouragement of diverse energy resources and EE as goals of California energy policy.

3. Section 701.1 of the Pub. Util. Code encourages practical and cost effective energy conservation and improvements in the efficiency of energy use and distribution.

4. Section 8360 of the Pub. Util. Code states that it is the policy of the state to modernize the electrical transmission and distribution system to maintain safe, reliable, efficient, and secure electrical service.

5. Section 8380 of the Pub. Util. Code requires the use of reasonable security procedures to protect customer information held by a utility.

6. Section 454.5(g) of the Pub. Util. Code requires the protection of confidential market-sensitive energy procurement-related data, and the California Uniform Trade Secrets Act, California Civil Code Section 654-655, 3426-3426.10 require protection of trade secrets.

7. Section 8380 of the Pub. Util. Code, which regulates the disclosure by utilities of customer information generated by the Smart Grid, seeks both to protect the privacy of customer data and to provide third-parties who obtain customer consent with data. Commission decisions that pre-date Public Utilities Code Section 8380 also provide broad protection for the privacy and security of utility customer PII generally, including requests from law enforcement agencies. See, e.g., D.90-12-121 (customer consent generally required for access to any customer PII); D.97-12-088 (customer consent for access to customer data under affiliate rules); D.00-07-020 (customer consent required for access to information about low income customers); D.01-07-032 (denial of petition by California Narcotics Officers Association for access to customer PII without valid subpoena or warrant); D.09-09-047 (authorizing electronic or written consent process for disclosure of customer-specific energy usage in private buildings). In addition, the California Constitution, Article I, section 1, expressly guarantees the protection of the privacy of every California citizen. Also, the California Information Practices Act of 1977 and subsequent related statutes provide detailed and comprehensive standards for the protection of the privacy of PII by both businesses and state agencies, including public utilities, the CPUC, and other state agencies.

8. Since the Commission has the authority to obtain data of policy and economic interest from regulated utilities and, pursuant to the provisions of the Pub. Util. Code and, then provide that data to state and federal agencies and researchers when certain conditions are met, including compliance with the California Constitution and California Information Practices Act where applicable, we conclude that the Commission also has the authority to order the transfer of the same data from utilities directly to those requesting the information, when providing that information to the requestors conform to the privacy and data protection required by law.

9. Pursuant to the privacy protection laws of California and Commission precedents, there is no legal barrier to the public release of energy usage or usage-related data which is not otherwise protected and from which identifying information has been removed such that an individual, family, household or residence, or non-residential customer cannot be identified or re-identified through subsequent data manipulation. Determining whether energy usage data meets these conditions, however, requires an exercise of judgment.

10. The Public Utilities Code permits the release of data removed of PII when the data cannot be re-identified and if the data is not otherwise subject to protections.

11. The state of California, like any customer, should have access to the usage data associated with state buildings.

12. The Public Resource Code and the Warren Alquist Act provide the CEC with authority to address issues associated with the implementation of the Non-residential Building Energy Use Disclosure Program.

13. California law permits the transfer of data containing PII to another state agency or federal agency when the transfer is necessary for the transferee agency

to perform its constitutional or statutory duties, and the use is compatible with a purpose for which the information was collected, and the use or transfer is accounted for.

14. The Non-residential Building Energy Use Disclosure Program is set forth in the Public Resources Code and administered by the CEC.

15. The Non-residential Building Energy Use Disclosure Program is administered by the CEC and the CEC has broad powers to obtain energy data.

16. Since there is no way to provide access to energy usage data as requested in Use Cases 8 and 11 while protecting personally identifiable information at this time, the Commission should not provide the requested access to data.

17. There is an explicit statutory mandate to collect data by CSD under the LIHEAP program.

18. The mailing of a letter to the Commission's Executive Director by an energy utility before the transfer of information to CSD or to another state or federal agency with a statutory need for data that describes the information to be disclosed and the name, title, and business address of the agency to whom the disclosure was made will ensure compliance with § 1798.25 of the California Civil Code.

19. Energy utilities in California should provide CSD with the information on energy usage and on usage-related data pertaining to weatherization sought by CSD following the procedures set forth in this decision.

20. The Commission should not order utilities to provide the information requested in Use Case 10 at this time.

21. The Commission should not order utilities to provide the information requested in Use Case 12 at this time.

22. The energy utilities that are parties to this proceeding should develop a DRRP as set forth in Attachment A to this decision and file a Tier 2 Advice Letter establishing the process in utility tariffs. In addition, the Advice Letter should set forth the details of a web portal set forth in this decision.

23. The August 16, 2013, motion of EFF to supplement the record in this proceeding should be denied.

24. PG&E, SCE, SDG&E and SoCalGas should be authorized to establish a memorandum account to record the incremental costs associated with providing access to energy usage data and to subsequently seek recovery of those costs through application or General Rate Case.

O R D E R

IT IS ORDERED that:

1. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall each post on its website, 180 days from the issuance of this decision and on a calendar quarterly basis thereafter, the total monthly sum and average of customer electricity and natural gas usage by zip code (when the zip code meets the aggregation standards adopted herein), as well as the number of individual customers in the zip code. The data shall be published for each customer class (residential, commercial, agricultural, or industrial).

2. Southern California Gas Company (SoCal Gas) shall post on its website, approximate monthly data based on its current system (until it has completed deployment of its advanced meters) and on a calendar quarterly basis thereafter. SoCal Gas shall post, the total monthly sum and average of customer natural gas

usage by zip code (when the zip code meets the aggregation standards adopted herein), as well as the number of individual customers in the zip code. The data shall be published for each available customer class.

3. Under this decision of the Public Utilities Commission, Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and San Diego Gas & Electric Company shall fulfill requests for covered energy usage and usage-related information by academic researchers who meet the conditions identified in § 7.2 of this decision and follow the Data Request and Release Procedures, including the timetable in Attachment A to this decision.

4. Before effectuating the transfer of information between Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), Southern California Gas Company (SoCalGas), or San Diego Gas & Electric Company (SDG&E), and qualified researchers, the utility shall execute non-disclosure agreement contained in Attachment B to this decision to ensure that qualified researchers will comply with the provisions of the California Information Practices Act and accept liability for data breaches or prohibited disclosures. No personal identifiable energy usage or usage-related data shall be disclosed to any researcher by PG&E, SoCalGas or SDG&E until four weeks after providing the Executive Director of this Commission with a notification of the pending transfer.

5. At the request of local government entities, subject to specified terms of service, Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and San Diego Gas & Electric Company shall provide the local government with yearly, quarterly, and monthly, data aggregated and anonymized to the census block group level (when the customer

data in the census block group meets the criteria set forth in this decision) or aggregated and anonymized over a requested group or zip code so that the requested customer data meets the criteria set forth in this decision. No data shall be transferred without providing the information and executed agreements set forth in the Data Request and Release Process in Attachment A to this decision that apply to local government entities. No data shall be transferred until four weeks after providing the Executive Director of this Commission with a notification of the pending transfer.

6. At the request of the California Department of Community Services and Development (CSD), Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and San Diego Gas & Electric Company shall provide the data requested to enable it to meet its statutory obligations pertaining to the Low Income Home Energy Assistance Program. The California CSD shall make its specific request pursuant to the Data Request and Release Process and utilities shall follow the deadlines set forth in that process. No data shall be transferred until four weeks after providing the Executive Director of this Commission with a notification of the pending transfer.

7. At the request of a state or federal agency that has a statutory need for energy usage and usage-related data and elect to request such data pursuant to this decision, Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and San Diego Gas & Electric Company shall provide the data requested to enable the agency to meet its statutory obligations. The state or federal agency shall make its specific request pursuant to the Data Request and Release Process and utilities shall follow the deadlines set forth in that process. No data shall be transferred until four weeks

after providing the Executive Director of this Commission with a notification of the pending transfer.

8. The utilities shall set up the Data Request and Release Process described in Section 8 via a Tier II Advice Letter filing within 90 days after the adoption of this decision. The web portals shall be operational within 90 days of the effective date of the Advice Letter.

9. The utilities shall file a quarterly Tier 1 Advice Letter to publicly note the transfer of information, amend its tariffs, and update the Data Catalog.

10. The Commission adopts an Energy Data Access Committee which Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company and San Diego Gas & Electric Company shall establish within six months of this decision's adoption. It shall consist of representatives from each of the utilities, Commission Staff, the Office of Ratepayer Advocates, researchers who meet the qualifications outlined in this decision, representatives of customer and privacy advocacy groups, and other interested parties.

11. The Energy Data Access Committee shall meet at least once a quarter for the initial two years and as necessary thereafter to review and advise on the implementation of the utilities' energy data access programs, and to consider informally any disputes regarding energy data access and make other informal recommendations regarding technical and policy issues related to energy data access.

12. This decision adopts a non-disclosure agreement, attached as Attachment B that Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and San Diego Gas & Electric Company shall execute with entities receiving data when required by this Commission order. We note that the non-disclosure agreement is not required of

state and federal agencies seeking data to comply with state or federal law or local government entities subject to the terms of use.

13. Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and San Diego Gas & Electric Company are authorized to establish a memorandum account to record the incremental costs associated with implementing the programs in this decision. The memorandum account shall be effective as of the date of the issuance of this decision. The utility is authorized to seek recovery of costs booked to this memorandum account via an application or in a general rate case proceeding and should demonstrate that the costs are reasonable and incremental to current revenue requirements. In addition, ongoing costs found reasonable and incremental will be reflected in revenue requirements following the utility's next general rate case proceeding.

This order is effective today.

Dated _____, at Los Angeles, California.

ATTACHMENT A:
DATA REQUEST AND RELEASE PROCESS

1. Each utility will establish a consistent, streamlined, "one-stop" process for providing data to entities eligible to request access to energy data as authorized in this decision. The process will include the following:
    a. Single point-of-contact in the utility for filing and processing of third-party energy usage data requests. The single point-of-contact will include a single email mailbox or website and other contact information to which requests for energy data access may be transmitted.
    b. The single point-of-contact information will be provided prominently and conveniently on the utility's website.
    c. The utility's website will provide access to an electronic input form for third-parties to request energy data access. The form will be consistent among PG&E, SCE, SDG&E, and SoCalGas.
2. The utility website is expected to eventually include a Data Catalog of energy data access requests made, fulfilled, and/or denied, among PG&E, SCE, SDG&E, and SoCalGas. New requests for data that have previously been received and fulfilled can easily be made available to eligible third-parties. Utilities must provide data without charge, but may record costs in a memorandum account and subsequently seek recovery via an application or general rate proceeding.
3. Within one business day of receiving a request form, from a third-party requesting access to energy data, the utility will respond by email or in writing acknowledging and confirming receipt of the request.
4. Within seven business days of receiving a request form from a third-party for access to energy data, the utility will respond by email or in writing regarding whether the information on the form is complete and, if incomplete, what additional information is required for the utility to process the request.
5. Within 15 business days of receiving a complete request for access to energy data from a third-party, the utility will respond by email or in

writing regarding whether it is able to grant the request, and provide a proposed schedule for providing the requested data. If the utility responds that it cannot grant access to the data, it will provide specific reasons for why it cannot provide the data or offer other options for providing data access (such as providing data listed in the Data Catalog or suggesting modifications to the request such that it could be granted). If the requesting party disagrees with the utility's rejection of its request for data access or the alternative options offered by the utility, the third-party may bring the dispute for informal discussion before the Energy Data Access Committee established below.

6. Non-disclosure agreement: Prior to receiving access to energy data, the requesting party will execute a standard non-disclosure agreement (described in Section 10 below) if required by the utility as directed by this decision (Section 7.2), with substantially consistent terms and conditions among PG&E, SCE, SDG&E, and SoCalGas. In addition, if a pre-disclosure review of the third-party's information security and privacy controls and protections is recommended by the utility, the recommendations will be substantially consistent among PG&E, SCE, SDG&E, and SoCalGas and published in advance and available on the utilities' website.

7. Terms of service: Local governments receiving aggregated and anonymous data need not sign an non-disclosure agreement but must accept the following terms of service:

    a. The party will use the data for the purposes stated in the request.

    b. The party will not release the data to another third party or publicly disclose the data.

    c. Prior to the release of any data to a requesting local government the utility must inform the Executive Director of the Commission via a formal letter four weeks in advance of the proposed transfer. The letter shall contain the following information:

        1. The purpose identified by the party requesting data.

            i. A description of the data requested and to be released.

8. Simultaneous with the completion of Step 5, the utility must inform the Executive Director of the Commission via a formal letter of its proposed

action. The utility must also send a copy of the letter to the requesting party. No data shall be released to university researchers, state or federal government agencies, or local government entities requesting census block-level data until four weeks have passed from the date of the letter informing the Executive Director of the Commission of the proposed transfer. The letter shall contain the following information:

a. The purpose identified by the party requesting data.

b. A description of the data requested and to be released.

c. The following contact information

   1. Name (Individual and organization, if applicable)

   2. Address

   3. Phone and email address

For an entity that requests ongoing access to data without change in either purpose or data requested, following the initial formal letter to the Executive Director by a utility providing data, no advance letter is needed for subsequent transfers of the same type of data. Instead, both the utility and the requesting entity shall file a quarterly report identifying the data that it is continuing to send or receive and provide (and update as needed) the contact information listed in this requirement.

9. The Energy Data Access Committee will meet at least once a quarter for the initial two years, and as necessary thereafter, to review and advise on the implementation of the utilities' energy data access programs, and to consider informally any disputes regarding energy data access and make other informal recommendations regarding technical and policy issues related to energy data access.

10. If a party does not accept the recommendation of the Energy Data Access Committee, that party maintains full rights to request a formal consideration of the matter by the Commission via the Commission's petition process. If the Access Committee recommends against providing access to the data requested by a third-party, that party may file a petition with the Commission seeking clarification of access rules. If the Access Committee recommends providing access to the data and a utility declines to follow the recommendation, the utility should similarly file a petition seeking clarification of Commission policies concerning whether that

particular request is consistent with Commission policies and privacy laws.

11. Nothing in this process requires or authorizes a utility or a third-party to violate any existing privacy or information security laws, rules or orders, including the Commission's privacy rules. Nothing in this process requires or authorizes a utility or a third-party to transfer, sell, or license energy data that consists of the utilities' intellectual property, trade secrets, or competitively-sensitive data. The transfer, sale or licensing of such intellectual property, trade secrets and competitively-sensitive data will be subject to Commission review and approval consistent with existing Commission rules and orders regarding the sale, transfer or licensing of utility assets.

12. All data outputs will be in standard formats. Data will be accessible in specified formats such as comma-delimited, XML, or other agreed-upon formats. Customized outputs or formats should be avoided. The Energy Data Access Committee can review formats annually to ensure that the utilities are consistent with current technology trends for data sharing formats.

13. Mechanisms for handling data delivery for requests of all sizes in a secure manner should be standardized. To the extent possible, utilities will provide data through the customer data access program adopted in Decision (D.) 13-09-025. Some requests may be very small and require very little effort to transmit or deliver. Others could be gigabytes in size. In addition, sensitive customer information or other information subject to protections must be transmitted to the third party with reasonable encryption. By standardizing delivery mechanisms, utilities and third-parties will provide pre-approved delivery methods for sensitive information, reducing risk as well as the time to transmit and receive the data.

(END OF ATTACHMENT A)

ATTACHMENT B

Model Non-Disclosure Agreement

THIS AGREEMENT is by and between _____ ("Recipient"), and _____ ("Utility") on _____ ("Effective Date") and, if applicable, terminating on _____. This Agreement is entered into pursuant to Decision [14-XX-XXX] (the "Commission Order") requiring that Utility disclose certain information as specified in the Commission Order.

Subject to the Commission Order and this Agreement, Recipient and Utility agree as follows:

1. This Agreement is limited to information and data as identified in Attachment A, which is in the possession or control of the Utility and for which this Commission Order requires an NDA prior to disclosure to a requesting party (hereinafter "Data"). This Agreement applies to such Data, whether conveyed orally or in written, electronic or other form of media, and whether or not marked as "proprietary," "confidential," or "trade secret." This includes customer-specific billing, credit, or usage information, electricity and/or gas usage information, which has not been publicly disclosed or within the public domain.
2. Protection of Data. In consideration of having access to such Data, and for the purpose specified below in Attachment B, the Recipient shall hold the Data in strict confidence, and not disclose it, or otherwise make it available to any person, entity or third party without the prior written consent of the Utility. The Recipient agrees that all such Data:
   a. Shall be used only for the purpose(s) as identified by Recipient and described below in Attachment B; and for no other secondary purpose; and
   b. Shall be used in compliance with all applicable privacy and information security laws and regulations, including, without limitation, California Public Utilities Code Sections 394, 454.5(g) and 8380, California Civil Code Sections 654-655, 1798 et seq., and 3426-3426.11.
   c. Shall not be reproduced, copied, in whole or in part, in any form, except as specifically agreed to by Recipient and Utility, and in conformance with the purpose(s) as identified in Attachment B; and
   d. Shall, together with any copies, reproductions, documents or other records thereof, in any form created by the Recipient that contain Data be either (1) returned to the Utility upon completion of services or work product or (2) destroyed, with signed verification, by Recipient upon completion of services or work product described in Attachment B; and

e. Shall not be used to attempt to re-identify individual customers by combining or comparing the Data with other data either already available to the Recipient or other publically available sources of information.

3. The Utility shall provide the Recipient with access to the Data based on the understanding that the Data is needed by Recipient to implement their research/project or other use as explained in Attachment B.

4. The Utility shall not unreasonably withhold the Data from the Recipient and understands that any such action will impact and potentially hinder the research/project or use.

5. The Recipient agrees that the Data shall be released only to persons or entities involved in the research/project or use set forth in Attachment B, and the Recipient shall inform all persons or entities who have access to the Data that they are subject to the requirements of this agreement and obtain a certificate from each acknowledging that they agree to comply with this agreement.

6. The Recipient shall take all reasonable security precautions to keep confidential the Data provided by the Utility under this agreement. The Recipient is not prohibited from using or disclosing Data: (a) that the Recipient can demonstrate by written records was known to it prior to receipt from the Utility; (b) that is now, or becomes in the future, public knowledge other than through an act or omission of the Recipient; (c) that the Recipient obtains in good faith from a third party not bound by confidentiality obligations to the Utility; (d) that the Recipient develops independently, for which the Recipient can demonstrate by written records that independent development occurred without knowledge or use of the Data received by the Utility; (e) where the Data is not otherwise confidential, and identifying information has been removed such that an individual, family, household or residence, or non-residential customer cannot reasonably be identified or re-identified; or (f) when Data is not otherwise confidential, and is used by another party to perform statistical analysis and the underlying data is never disclosed to that party.

7. The Recipient shall take "Security Measures" with the handling of Data to ensure that the Data will not be compromised and shall be kept secure. Security Measures shall mean reasonable administrative, technical, and physical safeguards to protect Data from unauthorized access, destruction, use, modification or disclosure, including but not limited to:

   a. written policies regarding information security, disaster recovery, third-party assurance auditing, penetration testing;

   b. password protected workstations at Recipient's premises, any premises where Work or services are being performed, and any premises of any person who has access to such Data;

c. encryption of the Data;

d. measures to safeguard against the unauthorized access, destruction, use, alteration or disclosure of any such Data including, but not limited to, restriction of physical access to such data and information, implementation of logical access controls, sanitization or destruction of media, including hard drives, and establishment of an information security program that at all times is in compliance with reasonable security requirements as agreed to between Recipient and Utility.

8. The Recipient upon the discovery of any unauthorized use or disclosure of the Data shall follow the protocol set forth in Attachment C and will cooperate in every reasonable way to help the Utility and the Commission prevent further unauthorized disclosure or use of the Data.

9. Notwithstanding other provisions of this agreement, Recipient may disclose any of the Data in the event it is required to do so by the disclosure requirements of any law, rule, or regulation or any order, decree, subpoena or ruling or other similar process of any court, governmental agency or governmental or regulatory agency of competent jurisdiction. Prior to making such disclosure, Recipient shall provide Utility with no less than 10 days' advance written notice of any such requirement so that Utility may, at its sole discretion, seek a protective order or other appropriate remedy.

10. Recipient may not assign any of its rights or delegate any of its obligations hereunder without the prior written consent of Utility, which consent shall be at Utility's sole discretion. Any purported assignment or delegation in violation of this Section shall be null and void. No assignment or delegation shall relieve Recipient of any of its obligations hereunder. This Agreement is for the sole benefit of the Parties and their respective successors and permitted assigns and nothing herein, express or implied, is intended to or shall confer upon any other person or entity any legal or equitable right, benefit or remedy of any nature whatsoever under or by reason of this Agreement.

11. This Agreement shall not be modified except by a written agreement dated subsequent to the date of this agreement and signed by authorized representatives of both parties. None of the provisions of this Agreement shall be deemed to have been waived by any act or acquiescence by either party, but only by an instrument in writing signed by an authorized representative of the party. No waiver of any provisions of this agreement shall constitute a waiver of any other provision(s) or of the same provision on another occasion.

12. If any provision of this agreement shall be held by a court of competent jurisdiction to be illegal, invalid or unenforceable, the remaining provisions shall remain in full force and effect.

13. This Agreement shall be governed by and interpreted in accordance with the laws of The State of California, without regard to its conflict of laws principles. In the event of any litigation to enforce or interpret any terms of this Agreement, the parties agree that such action will be brought in the Superior Court of the County of [Specify location], California (or, if the federal courts have exclusive jurisdiction over the subject matter of the dispute, in the U.S. District Court in or closest to [Specify location], and the parties hereby submit to the exclusive jurisdiction of such courts. Service of process, summons, notice or other document by mail to such Party's address set forth herein shall be effective service of process for any suit, action or other proceeding brought in any such court.
14. Recipient shall be liable for the actions of any disclosure or use by its Representatives contrary to the Commission Order and this Agreement. Except in connection with Recipient's obligations in Section 9 hereof, neither Party shall have any liability to the other for any special, indirect, incidental or consequential loss or damage whatsoever, even if such party has been advised in advance that such damages could occur.
15. Recipient shall defend and hold harmless Utility and its affiliates, officers, directors, employees, agents, representatives, successors and assigns, from and against any and all losses, causes of action, liabilities, damages and claims, and all related costs and expenses, fines, penalties, or interest, including reasonable outside legal fees and costs, arising out of, in connection with, or relating to Recipient's use, maintenance and/or disclosure of Data.
16. Notwithstanding expiration or termination of this Agreement, the obligations of Recipient under this Agreement to protect or (upon termination, destroy) the Data shall continue in perpetuity.
17. All notices to be given under this Agreement shall be in writing and sent by (a) a nationally recognized overnight courier service, in which case notice shall be deemed delivered as of the date shown on the courier's delivery receipt, (b) facsimile or electronic mail during business hours of the recipient, with a copy of the notice also deposited in the United States mail (postage prepaid) the same business day, in which case notice shall be deemed delivered on successful transmission by facsimile or electronic mail, or (c) United States mail, postage prepaid, in which case notice shall be deemed delivered as of two business days after deposit in the mail, addressed as follows:

    <u>If to Utility:</u>

    <u>If to Recipient:</u>

The notice information for each Party set forth above may be changed by such Party upon written notice to the Party, provided that no such notice shall be effective until actual receipt of such notice by the other Party. Copies of notices are for informational purposes only, and a failure to give or receive copies of any notice shall not be deemed a failure to give notice.

18. Neither party shall have any liability to the other for any special, indirect, incidental, punitive, exemplary or consequential losses or damages arising out of this Agreement, including, without limitation, loss of funding, even if such party has been advised in advance that such damages could occur.

19. This Agreement may be executed in counterparts, each of which shall be deemed an original, but all of which together shall be deemed to be one and the same agreement. A signed copy of this Agreement delivered by facsimile, e-mail or other means of electronic transmission shall be deemed to have the same legal effect as delivery of an original signed copy of this Agreement.

ATTACHMENT A to NDA

Requested Information and Data

ATTACHMENT B to NDA

Project/Research Description(s)

ATTACHMENT C to NDA

Security Breach Protocol

Recipient shall immediately notify the Commission and the Utility in writing of any unauthorized access or disclosure of the Data.

a. Recipient shall take reasonable measures within its control to immediately stop the unauthorized access or disclosure of Data to prevent recurrence and to return to Utility any copies.

b. Recipient shall provide the Commission and the Utility (i) a brief summary of the issue, facts, and status of Recipient's investigation; (ii) the potential number of individuals affected by the security breach; (iii) the Data that may be implicated by the security breach; and (iv) any other information pertinent to Utility's understanding of the security breach and the exposure or potential exposure of the Data.

c. Recipient shall investigate such breach or potential breach, and shall inform Utility, in writing, of the results of such investigation, and assist Utility (at Recipient's sole cost and expense) in maintaining the confidentiality of such Data.

d. If requested in writing by Utility or by the Commission, Recipient will notify the potentially affected persons regarding such breach or potential breach within a reasonable time period determined by Utility and in a form as specifically approved in writing by Utility. In addition, in no event shall Recipient issue or permit to be issued any public statements regarding the security breach involving the Data unless Utility requests Recipient to do so in writing.

ATTACHMENT D to NDA

Non-Disclosure Certificate

I, _____, hereby certify that (i) I am an employee, agent or contractor of [specify Recipient's legal name] ("Recipient"), (ii) I understand that access to Data (as defined in the NDA) will be provided to me pursuant to the terms and restrictions of that certain Non-Disclosure Agreement, dated and effective [specify date set forth in introductory paragraph of NDA], by and between [specify Utility's legal name] and Recipient ("NDA"), (iii) I have been given a copy of and have read and understand the NDA, and I agree to be bound by the NDA and all of its terms and restrictions in my capacity as a researcher of Recipient, and (iv) I shall not disclose (other than in accordance with the NDA) to anyone the contents of the Data, or any other form of information, that copies or discloses the Data.

By: _____

Title: _____

Organization: _____

Date: _____

(END OF ATTACHMENTS)