

BEFORE THE MINNESOTA PUBLIC UTILITIES COMMISSION

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Chair
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In the Matter of a Commission Inquiry
into Privacy Policies of Rate-Regulated
Energy Utilities

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ORDER GOVERNING DISCLOSURE OF
CUSTOMER ENERGY USE DATA TO
THIRD PARTIES, REQUIRING FILING
OF PRIVACY POLICIES AND COST
DATA, AND SOLICITING COMMENT

PROCEDURAL HISTORY

On June 17, 2013, the Commission issued an order to convene a workgroup to explore the appropriate use of customer energy use data (CEUD), and to recommend policies on the appropriate use and limitations on use of CEUD, balancing customer privacy and the state's energy goals.¹ Over time the following people and entities filed comments, participated in workgroups, or both:

- The Building Owners and Managers Association
- The Center for Energy and Environment
- CenterPoint Energy
- The Citizens Utility Board of Minnesota
- The City of Minneapolis
- Dakota Electric Cooperative
- Fresh Energy
- Great Plains Natural Gas
- Interstate Power and Light (Alliant)
- The Institute for Market Transformation
- The Minnesota Pollution Control Agency
- Minnesota Power
- Minnesota Valley Electric Cooperative
- Mission: Data Coalition
- National Federation of Independent Business
- The National Housing Trust
- Natural Resource Defense Council
- Northern States Power Company d/b/a Xcel Energy (Xcel)
- Opower

¹ This docket, Order Establishing Procedures for Further Comment and for Working Group (June 17, 2013).

- The Legal Services Advocacy Project
- The McKnight Foundation
- The Midwest Energy Efficiency Alliance
- The Minnesota Department of Commerce
- Minnesota Energy Resources Corporation
- The Minnesota Large Industrial Group
- The Minnesota Office of the Attorney General (OAG)
- Otter Tail Power Company
- PAR Energy Solutions LLC
- The Southwest Minnesota Housing Partnership
- The U.S. Green Building Council
- UtilityAPI
- Alexandra B. Klass, Elizabeth J. Wilson, and other individuals.

On September 17, 2014, an Administrative Law Judge (ALJ) from the Office of Administrative Hearings issued her First Workgroup Report (First Report); she issued an amended appendix on October 20, 2014.

On August 24, 2016, the ALJ issued her Second Workgroup Report (Second Report).

On December 1, 2016, the Commission met to consider the matter.

FINDINGS AND CONCLUSIONS

I. Summary

Data regarding customer energy use can help people—including people other than the customers in question—identify opportunities to pursue energy efficiency, conservation, and economic competitiveness, and to measure the effectiveness of those efforts. This data may be helpful in permitting greater use of electricity from renewable sources and reducing greenhouse gas emissions.² But disclosure of CEUD could reveal confidential facts about the consumer, and potentially about the energy distribution system.³ In this order the Commission does the following:

- Defines customer energy use data (CEUD);
- Declares that an energy utility should refrain from disclosing CEUD without the customer’s consent unless the utility has adequately protected the customer’s anonymity;
- Directs each utility to file its policies on aggregating and releasing CEUD, and to track and report the costs it incurs responding to requests for this data; and
- Solicits comments on a model form by which customers may give informed consent to the release of their data.

² First Report at 1-2.

³ *Id.*

II. Background

A. Energy Goals

CEUD is not only used by a utility to bill customers for their energy use. CEUD is also used to design, implement, and evaluate a utility's efforts to meet the various energy goals set forth in Minnesota statutes. For example, Minn. Stat. § 216B.2401 establishes the statewide goal to achieve savings of 1.5 percent of energy sales through energy efficiency and conservation:

The legislature finds that energy savings are an energy resource, and that cost-effective energy savings are preferred over all other energy resources. The legislature further finds that cost-effective energy savings should be procured systematically and aggressively in order to reduce utility costs for businesses and residents, improve the competitiveness and profitability of businesses, create more energy-related jobs, reduce the economic burden of fuel imports, and reduce pollution and emissions that cause climate change. Therefore, it is the energy policy of the state of Minnesota to achieve annual energy savings equal to at least 1.5 percent of annual retail energy sales of electricity and natural gas....

Consistent with this objective, Minn. Stat. § 216B.241, subd. 1c, establishes the general goal for energy utilities to reduce their retail energy sales by 1.5 percent via Conservation Improvement Programs. And subdivision 1e authorizes the Department to issue grants to research and develop “new technologies or strategies to maximize energy savings, improve the effectiveness of energy conservation programs, or document the carbon dioxide reductions from energy conservation programs.”

Likewise, Minn. Stat. § 216C.05, subd. 2, establishes the goal of reducing the use of fossil fuels per capita by 15 percent by 2015, and of meeting 25 percent of the state's energy needs from renewable sources by 2025. Minn. Stat. § 216H.02, subd. 1, provides for reducing greenhouse gas emissions relative to 2005 levels by 30 percent in 2025, and by 80 percent by 2050. And the state's Renewable Energy Standard, Minn. Stat. § 216B.1691, directs sixteen utilities to acquire a specified portion of their energy supplies from renewable sources.

In addition to these state policies, there are also various local, regional, and national energy goals.⁴ The achievement of these goals and standards could be helped or hindered by policies governing the availability of CEUD.

B. Commission Authority

While the Commission's statutes do not address the disclosure of CEUD specifically, they grant the Commission broad authority over public utility practices that affect customers. For example, Minn. Stat. § 216B.05, subd. 2, directs utilities to publicly declare their practices if the Commission finds those practices to be relevant to the provision of regulated utility service.

⁴ See First Report, at 14-20.

Every public utility shall file ... all rules that, in the judgment of the commission, in any manner affect the service or product, or the rates charged or to be charged for any service or product, as well as any contracts, agreements, or arrangements relating to the service or product or the rates to be charged for any service or product to which the schedule is applicable as the commission may by general or special order direct; provided that contracts and agreements for electric service must be filed as required by [other statutes].

Similarly, Minn. Stat. § 216B.09, subd. 1, grants the Commission jurisdiction over the practices of regulated utilities with respect to their regulated utility service.

The commission ... may ascertain and fix just and reasonable standards, classifications, rules, or practices to be observed and followed by any or all public utilities with respect to the service to be furnished.

C. 2013 Order

The Commission exercised its jurisdiction over CEUD when it issued its 2013 order establishing a workgroup to explore the following topics, among others:

- A definition of Customer Energy Use Data, limiting the use of energy consumption data solely to further the state's energy goals.
- Whether it is in the public interest to share energy consumption data with each of the following third parties, and whether the same type of data should be shared with each:
 - i. Governmental units,
 - ii. Non-governmental organizations (NGOs),
 - iii. Public Interest Advocacy groups,
 - iv. Private vendors of service, supplies or equipment,
 - v. Building owners, and
 - vi. Building designers.
- Whether data about the following groups of customers (or building types) should be treated differently:
 - i. Single-family residences,
 - ii. Multi-family residences,
 - iii. Mixed use buildings,
 - iv. Public buildings,
 - v. Commercial buildings, and
 - vi. Industrial buildings.
- Who should cover the cost of providing the data.

III. Definition of Customer Energy Use Data (CEUD)

As an initial matter, the record reflected some dispute about the precise scope of the term Customer Energy Use Data. But the First Report states that the Workgroup ultimately reached consensus that CEUD should refer to—

natural gas and electric usage data, including but not limited to ccf [hundred cubic feet], Mcf [million cubic feet], therms, dth [decatherms], kW [kilowatts], kWh [kilowatt-hours], voltage, var [volt-ampere reactive], or power factor, and other information that is collected from the utility meter for utility purposes, and that is necessary to further state energy goals.⁵

This definition has the advantages of identifying various measures of electricity and gas—addressing both quantity and quality—while limiting the scope of the data to matters that are measured by the utility’s meter. The Commission approves of, and will adopt, these aspects of the proposed definition. But in the course of the Commission’s hearing it became apparent that the definition should be modified to reflect additional concerns.

First, as noted above, the various units listed in the proposed definition characterize the quantity and quality of electricity or gas used. To make this definition simpler and more general, the Commission will re-phrase the definition to refer to data regarding the quantity or quality of the electricity or gas used, in lieu of listing specific units.

Second, it is unclear whether the proposed definition encompasses data regarding *when* a customer using electricity or gas. Customers may well have a privacy interest regarding data about when they consume energy and power. To remove any ambiguity on this point, the Commission will state explicitly that the definition encompasses data regarding the timing of a customer’s use of electricity or gas.

Third, the proposed definition refers to data collected by a utility meter regarding the customer’s *usage*, but omits data regarding the customer’s energy *production*. If a meter records data regarding the electricity generated at a customer’s premise—by solar photovoltaic cells, for example—this data should fall within the ambit of the CEUD definition as well.

Fourth, the Commission will clarify that CEUD refers to data collected by utility *customer meters*—that is, meters used for billing customers. This docket is not intended to address data collected at meters embedded within a utility’s system.

Finally, the Commission will decline to adopt the qualifying language “*for utility purposes*” and “*necessary to further state energy goals.*” The Commission desires its CEUD policies to apply to whatever data a customer’s meter records about the quantity, quality, or timing of the customer’s electricity or gas usage, regardless of whether a utility has identified a specific purpose for recording the data. And disputes about whether certain data is *required* to further state energy goals renders this language unsuitable for a definition. Consequently the Commission will omit this language from the definition of CEUD.

⁵ First Report at 35 (citations omitted).

Taking these considerations into account, for purposes of this docket the Commission will define Customer Energy Use Data as follows:

Customer Energy Use Data (CEUD) refers to data collected from the utility customer meters that reflects the quantity, quality, or timing of customers' natural gas or electric usage or electricity production.

IV. Disclosure of Customer Energy Use Data

A. Positions of the Commenters

The Department identifies both advantages and disadvantages for a policy authorizing release of CEUD without customer consent, even when using methods designed to maintain customer privacy.

Other commenters support disclosure of CEUD with safeguards designed to protect customer privacy, even without securing the consent of each individual customer. These commenters include the Center for Energy and Environment; the City of Minneapolis; Fresh Energy; the Institute for Market Transformation; the McKnight Foundation; the Midwest Energy Efficiency Alliance; the Minnesota Pollution Control Agency; the Mission: data Coalition, Inc.; the Natural Resources Defense Council; the National Housing Trust; the Southwest Minnesota Housing Partnership; the U.S. Green Building Council; and UtilityAPI. These commenters argue that access to this information would provide a basis for identifying the most promising opportunities for energy conservation efforts, and for evaluating the progress in achieving conservation goals. Some argue that access to this information is necessary to achieve the state's energy conservation goals.

In contrast, the Minnesota Large Industrial Group and the OAG argue that the Commission need not, and should not, exercise its general authority over utility practices to promote third party access to CEUD. They note that the Legislature has provided the Commission with various tools—such as the Conservation Improvement Program—specifically designed to promote conservation and energy efficiency, obviating any need for a policy that promotes the disclosure of CEUD to anyone beyond the utility and the customer.

Both the Minnesota Large Industrial Group and the OAG also oppose any broad policy authorizing release of CEUD without customer consent even if that data is aggregated and anonymized in some manner. The OAG argues that the record of this proceeding does not yet establish (1) the value of releasing this data, (2) the cost of managing this data release, nor (3) the effectiveness of measures intended to protect customer privacy. Similarly, the Minnesota Large Industrial Group argues that knowledge of a large industrial firm's CEUD can be commercially valuable to competitors, and that the data can be so distinctive as to defy efforts to obscure the customer's identity through aggregation.

Finally, the utilities express both a desire to have clear direction from the Commission and a concern that any direction might fail to address the privacy needs of individual customers.

B. Commission Action

The Commission acknowledges the trade-offs identified by the commenters. The ALJ's First Report observed that CEUD is useful—

- for establishing baseline energy use and setting conservation and efficiency goals,
- for improving customer awareness of energy use,
- for planning and implementing energy efficiency programs, and
- for measuring and verifying energy savings.⁶

As a report for the National Association of Regulatory Commissioners (NARUC) observed, the choice to limit access to CEUD may limit the ability to achieve these objectives:

Regulators are in a position to influence or drive how the evolving customer-focused model will continue to be shaped in their territories. Regulatory environments with more open data access markets will allow for faster innovation in products and services, providing more choices and value for customers. Regulatory environments with more limiting or conservative data access policies will potentially delay the availability of customer choices. [H]ow the customer-focused business model is shaped will partially depend on the regulatory environment of each territory, as well as the innovation, choices, and customer value stemming from a more open market.⁷

But on the other hand, greater access to CEUD could reveal details about a customer's daily life. The data might disclose facts about a customer's household routine (when the customer sleeps and when the customer is active at home), whether the household has an alarm system, the types of appliances installed, the presence of certain medical equipment, and so on. Data from industrial customers might reveal competitively sensitive information. And, conceptually, disclosure of CEUD could reveal vulnerabilities in the energy distribution system.⁸

The evolving state of technology involving data collection and analysis, as well as the evolving state of privacy law, prompt the Commission to adopt a cautious approach. Balancing these considerations, the Commission concludes that utilities should refrain from releasing CEUD without the customer's consent unless the utility adequately protects the anonymity of the data. Among other things, this means that where a customer's data would be so distinctive as to defy anonymization, a utility must secure the customer's consent before releasing the data to third parties.

⁶ See First Report, at 20-21.

⁷ Navigant Consulting, Inc. *Value of Customer Data Access – Market Trends, Challenges, and Opportunities, Final Report*, at 7-8 (March 2015), prepared for the National Association of Regulatory Commissioners (NARUC) and the Eastern Interconnection States' Planning Council (EISPC).

⁸ See First Report at 1-2.

At this time the Commission will not specify any one technique or procedure a utility must follow to adequately protect a customer's anonymity. Instead, the Commission will direct utilities to file their practices with the Commission. That is, utilities that already have a practice for releasing CEUD to third parties after taking steps to anonymize the data—for example, by aggregating that data with other customers' data before releasing it—should file these practices with the Commission. And if a utility currently refrains from releasing any CEUD without the customer's consent, but later seeks to amend this practice, the Commission will direct that utility to file its new proposed practice with the Commission at least 30 days before implementing it.

By requiring utilities to file their procedures for protecting the anonymity of its customers, the Commission will gain insights into the actual practices utilities are employing today. In addition, this order may prompt utilities to re-evaluate the adequacy of their current practices, and to refine those practices before filing them with the Commission.

V. Securing Consent to Disclose CEUD

A. Background

Commission rules direct regulated energy utilities to retain customer information for at least three years, and to provide access to that information—and reasonable access to additional information—to the customer upon request:

The utility shall retain customer billing, complaint, payment, and deposit records for the length of time necessary to permit the utility to comply with the commission's rules; provided the utility shall retain these records for not less than three years. A customer's own billing, complaint, payment, and deposit records shall be available to that customer.

Each utility shall have available for existing customers and applicants for service such information as is needed to obtain and maintain adequate, timely, and efficient service.

Each utility shall furnish additional information as the customer may reasonably request.⁹

But these rules do not expressly authorize a utility to release this information to a third party, even with the customer's consent. A customer's consent to the release of his or her CEUD raises issues of logistics and consumer protection. As a matter of logistics, customers, utilities, and third parties would all benefit if customers have a clear, unambiguous way to signal consent for the release of their CEUD. And as a matter of consumer protection, the Commission seeks to ensure that customers who consent to release their data to third parties give *informed* consent.

⁹ Minn. R. 7820.4800.

B. Positions of the Commenters

Commenters—especially the City of Minneapolis, CenterPoint, the OAG, and Xcel—offered various opinions about whether the Commission should establish a consent form, the contents of that form, and whether its use should be mandatory or optional.

In the Second Report, the ALJ stated that commenters generally favored developing a model customer consent form based on a form used in Colorado, as attached to this order.¹⁰ This form asks the customer to identify the third party who is to receive the customer's data, the type of data to provide (electric, gas, steam), the purpose for releasing the data (for example, to analyze the customer's energy usage), and the period for which the utility is to provide the data. The form also contains statements informing the customer of his or her rights to withhold consent, limit consent, and retract consent for disclosing this data, among other things.

However, commenters also recommended altering the Colorado form to incorporate modifications such as these:

- [Any third party seeking the customer's CEUD] should be required to disclose a purpose for the request as a means of providing important information for the customer, but the proposed disclosure should not create any duty on the part of the utility to monitor the substance or appropriateness of identified purposes.
- Colorado's disclosure language should be retained, which notifies the customer that the utility will not monitor whether the data is being used for the purposes requested.
- The customer's signature, whether in print or in electronic form, should be required on the same page as the disclosures as a means of ensuring that the customer has read them.
- The Commission should clarify the form with respect to its applicability to the allowed sharing of [data regarding any special programs the requestor participates in], whether in individual or aggregated form.
- The form should be web-based to the greatest extent possible and made available in languages other than English (Spanish, Somali, Hmong, etc.).¹¹

¹⁰ See Second Report, Exhibit L.

¹¹ See Second Report at 21-22.

C. Commission Action

The record reveals that commenters tried to develop a recommendation about how to enable customers of Minnesota's energy utilities to consent to the release of their CEUD to specified third parties, and that these commenters made substantial progress. Nevertheless, the Workgroup was not able to fashion a final recommendation for the Commission.

Consequently the Commission will solicit additional comments on how to develop a model form to permit Minnesota's energy customers to give informed consent for the release of their data to the third parties they designate. The Commission will authorize its Executive Secretary to establish a schedule by which interested parties may submit comments and recommendations regarding the Workgroup's draft model form.

VI. Tracking and Reporting Costs Related to CEUD Disclosure

A. Positions of the Commenters

Utilities and other commenters expressed concern about the cost of providing access to CEUD. Xcel reported that in 2013 it processed 112,400 requests for CEUD, in addition to replying to subpoenas and other court orders seeking this data, and that requests for such data was increasing. Minnesota Valley Electric Cooperative and Dakota Electric Association estimate that they process 100 requests annually. Other utilities did not track this information.¹²

Nor do Minnesota utilities generally track the cost of complying with these requests. According to the First Report:

Whether the request is as simple as a copy of last month's residential invoice for one customer, or annualized energy usage for an entire community accessed by specific zip codes, historically utilities have invested the necessary staff hours into pulling and manipulating responsive data, no matter the cost or time commitment, without an ability to seek specific remuneration for costs associated with necessary technology or staff time. Traditionally these costs have been spread across all consumers through each utility's rate structure.¹³

Nevertheless, these costs could be substantial. The First Report cited an estimate that California utilities incurred costs between \$1.6 million and \$19.4 million simply to develop systems to provide access to CEUD with appropriate safeguards.¹⁴

But some utilities have begun seeking recovery of their costs for managing CEUD. Xcel, for

¹² See First Report at 37.

¹³ *Id.*

¹⁴ *Id.*, citing California Public Utilities Commission Decision 14-05-016, Decision Adopting Rules to Provide Access to Energy Usage and Usage-Related Data While Protecting Privacy of Personal Data at 105 (May 5, 2014).

example, claims that when a third party seeks data for more than 10 customer accounts, Xcel's tariffs provide for recovering some of the cost of that work from the third party. Similarly, Xcel states that its tariffs provide for billing individual customers when those customers seek specialized CEUD reports or data feeds of their own data.¹⁵

B. Commission Action

One principle of rate design is to require cost causers to bear the burden of the costs they impose on a utility and its ratepayers; this reduces the subsidies that any party bears for another party's conduct or benefit. But there can be many countervailing considerations—for example, the question of whether a request for data is caused by some third party's request, or ultimately caused by a desire to advance public policies encouraging energy conservation and efficiency.

In any event, the Commission's ability to address issues of cost recovery for managing CEUD is impaired by the lack of data in the record. To remedy that problem, the Commission will direct utilities to (1) track the requests they receive for this data and the costs they incur to aggregate and disclose it, and (2) file this information with the Commission annually. The Commission's Executive Secretary will issue a notice providing additional instruction for making this filing.

ORDER

1. For purposes of this docket, the Commission defines *Customer Energy Use Data (CEUD)* as data collected from the utility customer meters that reflects the quantity, quality, or timing of customers' natural gas or electric usage or electricity production.
2. A utility shall not disclose CEUD without the customer's consent unless the utility has adequately protected the anonymity of the CEUD. Each utility shall file its aggregation and release policies with the Commission within 30 days of the order or 30 days prior to implementation.
3. Each utility shall track the requests it receives for CEUD and its costs of aggregating and disclosing that data. Each utility shall file this information annually.

¹⁵ *Id.*

4. The Commission hereby delegates to the Executive Secretary the authority to –
 - A. Establish the schedule for soliciting additional comments and recommendations on the Workgroup draft model consent form, and
 - B. Direct how utilities make their annual filings regarding the requests they receive for CEUD and the cost of aggregating and disclosing the data.
5. This order shall become effective immediately.

BY ORDER OF THE COMMISSION

Daniel P. Wolf
Executive Secretary



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CONSENT TO DISCLOSE UTILITY CUSTOMER DATA

All requested information must be provided for the consent to be valid. This form may be available from your utility provider in other languages. To obtain a copy in another language, please contact your utility provider. Para obtener una copia de este formulario en español, por favor contacte a su proveedor de servicios públicos.

Utility Name and Contact: _____
Physical and Mailing Address: _____

Phone: _____ Email: _____ Fax: _____
For additional information, including the utility's privacy policy, visit [web address]

By signing this form, you allow your utility to give the following information to:

Organization/Trade Name: _____
Contact Name (if available): _____
Physical and Mailing Address: _____

Phone: _____ Email: _____ Fax: _____

This organization will receive the following customer data:

- Information from your meter collected by your utility services provider from the following services (check all services that apply): **electric** **steam** **natural gas**
- Information regarding your participation in renewable energy, demand-side management, load management, energy efficiency or other utility programs
- Other (specify) _____.

This information will be used to:

- Provide you with products or services you requested
- Offer you products or services that may be of interest to you
- Determine your eligibility for an energy program
- Analyze your energy usage
- Other (specify): _____.

DATA COLLECTION PERIOD

The relevant timeframe associated with the requested data is from ___/___/___ and will:

- end on ___/___/___
- be effective until terminated by you.

You may terminate this consent at any time by sending a written request with your name and service address to your utility.

PLEASE READ THE CUSTOMER DISCLOSURES ON PAGE 2 OF THIS FORM

By signing this form you acknowledge and agree that you are the customer of record for this account and that you authorize your utility service provider to disclose your customer data as specified in this form.

CUSTOMER ACCOUNT NUMBER

SERVICE ADDRESS

PRINTED NAME

SIGNATURE OF CUSTOMER OF RECORD

DATE SIGNED

To be completed by the Data Recipient

To be completed by the Customer

CUSTOMER DISCLOSURES

*** Customer data can provide insight into activities within the premises receiving utility service. Your utility may not disclose your customer data except (1) if you authorize the disclosure, (2) to contracted agents that perform services on behalf of the utility, or (3) as otherwise permitted or required by laws or regulations.***

You are not required to authorize the disclosure of your customer data. Not authorizing disclosure will not affect your utility services.

You may access your standard customer data from your utility without any additional charge.

Your utility will have no control over the data disclosed pursuant to this consent, and will not be responsible for monitoring or taking any steps to ensure that the data recipient maintains the confidentiality of the data or uses the data as authorized by you.

In addition to the [Customer Data] described above, the data recipient may also receive the following from your utility: your name; account number; service number; meter number; utility type; service address; premise number; premise description; meter read date(s); number of days in the billing period; utility invoice date; base rate bill amount; other charges including base rate and non-base rate adjustments; taxes; and invoice total amount. Your utility will not provide your Social Security Number or any financial account number to the data recipient.