

Decision No. C11-1144

**BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO**

DOCKET NO. 10R-799E

---

IN THE MATTER OF THE PROPOSED RULES RELATED TO SMART GRID DATA  
PRIVACY FOR ELECTRIC UTILITIES, 4 CODE OF COLORADO REGULATIONS 723-3.

---

**ORDER ON EXCEPTIONS**

---

---

Mailed Date:      October 26, 2011  
Adopted Date:     October 17, 2011

**TABLE OF CONTENTS**

I.	BY THE COMMISSION .....	2
A.	Statement .....	2
B.	Rule 3001(ff) .....	3
C.	Rule 3032.....	4
D.	Rule 3026(a) .....	5
E.	Rule 3026(c) .....	5
F.	Rule 3026(e) .....	7
G.	Rule 3027(c)(IX) .....	8
H.	Rule 3028(a) .....	8
I.	Rule 3028(b).....	11
J.	Rule 3029(a)(II).....	11
K.	Rule 3031(a) & (b) .....	13
L.	Rule 3031(e) .....	13
M.	Rule 3976.....	14
N.	Customer Meter Request .....	15
O.	Implementation.....	16
P.	Adopted Rules Not Discussed .....	16
II.	ORDER.....	16

---

**I. BY THE COMMISSION****A. Statement**

1. This matter comes before the Commission for consideration of exceptions filed on September 19, 2011 by Public Service of Colorado (Public Service); Black Hills/Colorado Electric Utility Company, L.P., d/b/a Black Hills Energy (Black Hills) (collectively, Utilities); the City of Boulder (Boulder); Tendril Networks, Inc. (Tendril), the Technology Network (TechNet), and Demand Response and Smart Grid Coalition (DRSG) to Recommended Decision No. R11-0922 (Recommended Decision). On October 3, 2011, the Office of Consumer Counsel (OCC) and the Utilities each filed a response to the exceptions of other parties. Being fully advised in the matter and consistent with the discussion below, we address these exceptions in turn.

2. This docket requires the balancing of two competing but valid interests. The Commission requires that the privacy of ratepayers be respected. The Commission is also creating a mechanism where, with the consent of ratepayers, certain confidential information may be provided to local governments and commercial interests.

3. The Commission has achieved this balance by clarifying that a utility is only authorized to use customer data to provide regulated utility service in the ordinary course of business. We created an annual notice requirement that utilities are required to send to their customers. We created a uniform customer consent form that will authorize the disclosure of customer data to third parties. We developed civil enforcement and civil penalties in the event confidential data is intentionally released.

4. Administrative Law Judge G. Harris Adams (ALJ) discussed the procedural history of this rulemaking docket in the Recommended Decision, issued on August 29, 2011, at ¶¶ 1-14. We incorporate that statement of procedural history in this Order and will not

reiterate it here, except as needed to provide context to our rulings. We proceed directly to a discussion of the arguments presented by each interested party on exceptions.

**B. Rule 3001(ff)**

5. Public Service states that the definition of “standard customer data” in Rule 3001(ff), as proposed by the ALJ, could be interpreted in a way that does not align with a utility’s collection practices and infrastructure. Public Service is concerned that the word “including” would significantly broaden the definition. It further argues that without a clarification this term, when read in conjunction with Rule 3026(d), would necessitate a substantial investment in personnel, internet bandwidth, and ongoing operations and maintenance. Public Service therefore recommends that the Commission amend Rule 3001(ff) as follows:

“Standard customer data” means customer data maintained by a utility in its ordinary course of business, including energy usage information sufficient to allow customers to understand their usage at level of detail commensurate with the meter or network technology deployed by the utility to serve the customer’s premise, as limited by the utility’s existing data collection practices and infrastructure.

6. For its part, Black Hills argues that a literal interpretation of Rule 3001(ff) would cause the fifteen minute interval data that is stored in the metering device to qualify as standard customer data. Black Hills states that the data would not be standard customer data because it is not maintained or controlled by the utility, as necessitated by Rule 3001(j). Black Hills therefore recommends that the Commission amend Rule 3001(ff) as follows:

“Standard customer data” means customer data maintained by a utility in its ordinary course of business, including energy usage information sufficient to allow customers to understand their monthly usage.

7. We agree with the Utilities that Rule 3001(ff) should be revised to provide additional clarification. The use of the word “including” may expand the definition, thus we are removing that word. We amend and clarify Rule 3001(ff) to read as follows:

“Standard customer data” means customer data maintained by a utility in its ordinary course of business. If maintained in the ordinary course of business, such data shall be sufficient to allow customers to understand their usage at a level of detail commensurate with the meter or network technology deployed by the utility to serve the customer’s premise.

8. We therefore grant, in part, and deny, in part, the exceptions filed by Public Service and Black Hills Energy on this issue.

**C. Rule 3032**

9. Public Service and Black Hills both argue that the data freeze concept and its associated forms create unnecessary complexity and administrative handling. They point out that the operating presumption is that customer data is not shared without a customer’s consent, thus making the data freeze unnecessary.

10. Likewise, TechNet argues that, the data freeze concept could unnecessarily alarm customers and convey the impression that it is prudent to impose restrictions on all third part data sharing. In the alternative, TechNet requests that unfreezing be simultaneous with the consent for data release, rather than a sequential process.

11. In promulgating the smart grid data privacy rules, we must balance both customer privacy and development of new smart grid technologies. We note that the incremental value of the data freeze concept appears to be minimal, because the default position is that customer data is not shared without consent. We therefore agree with the Utilities and TechNet that customer data freeze is unnecessary. Hence, we will strike Rule 3032 in its entirety and have any sections which reference the data freeze concept removed.

12. We grant the exceptions of Public Service, Black Hills, and TechNet on this issue.

**D. Rule 3026(a)**

13. Black Hills Energy argues that the rule, as proposed by the ALJ, does not recognize the totality of the services provided by the utility. Thus, it suggests amending the rules to allow the utility to use customer data to provide regulated and non-regulated products and services. Black Hills suggests the following language:

A utility is ~~only~~ authorized to use customer data to provide regulated utility service to its existing customers in the ordinary course of business and to market or provide non-regulated services offered by the utility or one of its affiliates to its customers.

14. In response, the OCC argues that such a rule would be an improper expansion of a utility's right to access customer data and should be considered an unauthorized use of customer data. Further, OCC argues that this rule could put utilities at a significant competitive advantage compared to other non-regulated companies.

15. We agree with the OCC that the wording changes proposed by Black Hills would be an improper expansion of a utility's right to access customer data and would amount to an unauthorized use of customer data. We therefore deny the exceptions filed by Black Hills on this issue.

**E. Rule 3026(c)**

16. In its exceptions, Black Hills contends a portion of Rule 3026(c)(I) is ambiguous. Black Hills argues that the provision that states "frequency of the data collected" refers to the function of how meter reading cycles are set as a function of general system administration or operation. It submits that the proper terminology for customer data updates availability should be in a tariff. Black Hills offers the following language:

A description of standard customer data and non-standard customer data (billing determinants or other collected data) and the frequency of customer data updates that will be available (annual, monthly, daily, etc.).

17. For its part, Public Service argues that utilities should be permitted to develop tariffs that recognize there may be individualized costs associated with processing certain “specialized requests” for customer data, mainly requests for “batched data.” Public Service defines “batched data” as a data request involving a third party obtaining consent from several individuals and requesting the standard customer data for these individuals in a single file or format. Public Service also raises concerns about requests for large quantities of historical data.

18. We find that Black Hills’ request for clarification is reasonable and we adopt it, with some modifications. However, we find that the issues raised by Public Service are already covered in Rule 3026(c)(IV). This is because requests for batched data may be considered non-standard data requests. We also note that historical data is standard data regardless of its amount. If Public Service is concerned with large data requests, it can always purge customer data after a length of time that comports to the utility’s record retention policy. We clarify that Section (I) of Rule 3026(c) defines the “what” whereas Section (II) defines the “how.” We therefore adopt the following changes to Rule 3026 (c).

A utility shall include in its tariffs a description of standard and non-standard customer data that the utility is able to provide to the customer or to any third-party recipient to whom the customer has authorized disclosure of the customer’s data within the utility’s technological and data capabilities. At a minimum, the utility’s tariff will provide the following:

(I) A description of standard customer data and non-standard customer data (billing determinants or other collected data) and the frequency of customer data updates that will be available (annual, monthly, daily, etc.);

(II) The method and frequency of customer data transmittal and access available (electronic, paper, etc.) as well as the security protections or requirements for such transmittal;

- (III) A timeframe for processing the request;
- (IV) Any rate associated with processing a request for non-standard customer data; and
- (V) Any charges associated with obtaining non-standard customer data.

19. We therefore grant the exceptions filed by Black Hills and deny the exceptions filed by Public Service on this issue.

**F. Rule 3026(e)**

20. Public Service raises four issues in its exceptions with respect to this rule: (1) elimination of the reference to customers, to clarify that customer access to standard customer data is controlled by Rule 3026(d) and third party access is controlled in 3026(e), (2) elimination of the term “CD” as it is a legacy of earlier drafts and not used in the Recommended Decision, (3) elimination of the data freeze concept (discussed at ¶ 7 of this Order), (4) clarification that this duty to provide access pertains to only routine requests for standard customer data. For its part, TechNet addresses the data freeze concept (discussed at ¶ 8 of this Order).

21. We find that Public Service’s exceptions do provide clarification and amend the rules to reflect that section (e) controls third party access, eliminate the term “CD,” and eliminate the data freeze concept (as discussed in ¶ 9 of this Order). We shall not provide clarification that the duty to provide access pertains only to routine requests for standard customer data, since Rule 3026(e) is already clear in that regard.

22. Therefore, we grant, in part, and deny, in part, the exceptions filed by Public Service on this issue.

**G. Rule 3027(c)(IX)**

23. Both Public Service and Black Hills argue on exceptions that, pursuant to the Recommended Decision, utilities would have the discretion regarding how they deliver the annual written notice. Public Service suggests striking this section of the rule entirely, but requests a clarification that an insert in an electronic bill would satisfy the delivery requirement (of rule 3027. Customer Notice). Black Hills also requests a clarification that electronic billing may be used to provide notice.

24. We agree with the ALJ that “[b]y requiring written notice, the rule does not limit the means by which the utility delivers the notice to the customers. The rule will remain silent leaving the means of delivery to the discretion of the utility and its agreement with the customer as to how notices will be delivered.”<sup>1</sup> To provide a clarification, we amend Rule 3027(c)(IX) by striking the word “mailed” and replacing it with the word “sent.”

**H. Rule 3028(a)**

25. Public Service argues that, because utilities can be fined for improperly releasing the customer data, there should be a uniform manner in how the data will be released. Rule 3028(a), as proposed by the ALJ, specifies that the Commission shall prescribe and supply the form used by customers to disclose their customer data to third parties. However, another provision within that rule allows third parties to use their own consent form so long as the form’s contents comply with the Rule’s requirements. Public Service argues this provision raises ambiguity regarding whether a third party’s consent form can be relied upon to release customer data.

26. Public Service also requests the Commission clarify for how long a consent to disclose customer data will remain valid. Public Service requests that these consents be limited

---

<sup>1</sup> Recommended Decision, at ¶ 50.

to three years from the date of the executed form, in order to coincide with its record retention responsibilities.

27. For its part, Black Hills requests the Commission add another method to handle consents to disclose customer data. Black Hills explains it has local offices that provide in-person customer service. It proposes that, if a customer fills out a form in-person at a local office and provides sufficient identification, a notary should not be required. Black Hills suggests the following language be added to Rule 3028:

A customer of a utility, who completes a Customer Consent Form at the local office of the utility and provides adequate identification, including, but not limited to, a valid picture identification and customer account information, will not be required to provide a notarized signature.

28. Tendril, TechNet, and DRSG all argue that the notarization requirement in Rule 3028(a) should be eliminated. They argue that the requirement is onerous and that it obligates customers to locate notaries and incur notarization costs whenever they seek to do business with third parties. Tendril, TechNet, and DRSG argue the notarization requirement could significantly impair customer choice of demand response or energy management services or products offered by a party other than the utility.

29. In response to Public Service, the OCC states that the term of customer consent should not be time-limited and should last until terminated by the customer. It argues that Public Service's approach would be overly burdensome on customers, third-party data aggregators, and the utility.

30. We agree with Public Service that the Commission prescribed form should be the uniform manner in which customers may disclose their data to third parties. The release forms developed by third party would impose a burden upon the utilities to verify these forms comply

with the Commission requirements. In addition, third parties have the options to attach a cover letter to the Commission prescribed form to provide additional information to the customers. We therefore remove any references to the use of a third party form from the rules. However, we do not agree with Public Service that the consent period should be limited to three years, for reasons as stated by the OCC.

31. We agree with Black Hills that its proposal to handle consents to release customer data “in person” at its local offices is reasonable. We therefore add a new section to Rule 3028 to explicitly permit for this method of customer data release.

32. We agree with Tendril, TechNet, and DRSG that the notarization requirement is onerous and obligates customers to locate notaries and incur notarization costs whenever they seek to do business with third parties. We are concerned with customer privacy and the need to verify customer identity. However, we note that notarization is not required for other interactions between a utility and its customers where misuse of customer information is equally possible, for example to establish a new account. Further, under the rules as proposed by the ALJ, a customer may release data electronically without a notarization requirement; therefore alternative methods of establishing customer identity are available. We direct the Utilities to propose alternative and less burdensome methods of verifying customer identity in their tariffs, such as requiring customers to provide certain identifying information within the consent form.

33. Therefore, we grant, in part, and deny, in part, the exceptions of Public Service; grant the exceptions of Black Hills; and grant the exceptions Tendril, TechNet and DRSG on this issue.

**I. Rule 3028(b)**

34. Tendril argues that electronic customer consent process for disclosure of customer data should be mandatory not permissive within the rules. Tendril argues that any utility has an on-line portal through which customers already manage their accounts and thus utilities would not be required to undertake new web development initiatives. Tendril suggests the following amendment:

(b) A utility that provides customers with online account management features shall make available an electronic customer consent process for disclosure of customer data a third party.

35. Likewise, TechNet argues the best competitively-neutral option for an electronic customer consent process is to allow a utility or a third party to obtain consumer consent through the use of a secure web portal without notarization.

36. DRSG argues that the utilities that have an on-line presence with their customers should be required to the electronic consumer consent process, unless the utility can establish its system does not have the proper and necessary functionality and capability to accommodate the electronic process absent a major upgrade and modification.

37. We find that permissive language within the rules is adequate for the purposes of obtaining customer consent. We encourage the utilities to continue using existing web portals, but see no need at this time to mandate such use. We therefore deny the exceptions filed by Tendril, TechNet, and DRSG on this issue.

**J. Rule 3029(a)(II)**

38. In its exceptions, Tendril argues that Rule 3029(a)(II) should be amended to allow third-party agents to use non-personal aggregated and anonymous data for secondary purposes.

It argues that the rule currently prevents contracted agents from utilizing customer data for any secondary purpose without first obtaining customer consent. Tendril supports this rule to the extent that it applies to personally identifiable information. However, Tendril argues the rule, as adopted by the ALJ, applies to all customer data, irrespective of whether or not it is personally identifiable. TechNet and DRSG make similar arguments in their exceptions. DRSG adds that secondary uses of information that is not personally identifiable are of critical importance to third parties. These parties may use such anonymous information to improve products and services, to demonstrate the energy and cost savings that result from their products, or to develop additional product and service offerings.

39. In its response to exceptions, Public Service disagrees with Tendril, TechNet, and DRSG. It argues that allowing third-party agents to use customer data for their own purposes without an additional customer consent would not be transparent to customers. Further, Public Service argues the amendment proposed by Tendril, TechNet, and DRSG would fundamentally violate the informed consent principle that serves as a foundation for the rules. Public Service also argues the proposed amendment is unnecessary because the rules already contain two mechanisms for these groups to obtain information for their own purposes.

40. We agree with Public Service that the amendment proposed by Tendril, TechNet and DRSG would violate the principles of informed consent and transparency. We therefore deny the exceptions filed by Tendril, TechNet, and DRSG on this issue.

**K. Rule 3031(a) & (b)**

41. In its exceptions, Tendril argues that Rule 3031(b) should be modified to require utilities to demonstrate a specific privacy or security risk when denying a request for aggregated data. Rule 3031, as proposed by the ALJ, sets forth the circumstances under which utilities may disclose aggregated data reports to customer and third parties. The rule requires the disclosure of aggregated data unless the disclosure would compromise the individual customer's privacy or the security of the utility's system. DRSG echoes these arguments in its exceptions.

42. Both Public Service and Black Hills argue that a utility must be able to exercise its management discretion in both operating its system in a safe, reliable, and secure manner and protecting customer privacy. In addition, providing the details of why a certain data aggregation compromises security or privacy may, in and of itself, trigger the security or privacy concerns the utility is trying to avoid. The Utilities also argue that, if a party believes a utility is improperly obstructing requests for aggregated data, the Commission already has processes in place to seek a remedy.

43. We agree with the Utilities. We find that the utilities must be able to exercise their discretion and that providing the details of why a certain data aggregation compromises security or privacy may, in and of itself, trigger these concerns. We also agree with the Utilities that the Commission's complaint process is sufficient to address any bad faith allegations. We therefore deny the exceptions filed by Tendril and DRSG on this issue.

**L. Rule 3031(e)**

44. Boulder argues that utilities under Rule 3031(e) be required to make reasonable efforts to fulfill non-standard aggregated data report requests. Boulder acknowledges that some data may be inordinately difficult or expensive to obtain and aggregate. However, Boulder argues that the rules leave requestors with no recourse should the utility deny their request.

45. Public Service argues the Commission's existing complaint process is sufficient for remedying alleged bad faith on the part of the utilities in fulfilling requests for aggregated data.

46. We agree with Public Service and find that that the Commission's existing complaint process is sufficient to address such allegations. We therefore deny the exceptions filed by Boulder.

**M. Rule 3976**

47. Public Service and Black Hills Energy argue that the rules, as adopted by the ALJ, allow for penalties for a violation of each and every provision of the rules. The Utilities disagree with this approach, as it could lead to cumulative penalties for a single incident. The Utilities ask the Commission to revise Rule 3976 in a manner that avoids cumulative penalties. Public Service suggests that on approach would be to cap the total amount of penalty per incident.

48. In its response, the OCC argues that if that utilities are allowed to consolidate an incident in which the data of multiple customers is disclosed, the consequences would be the same as if the data of only one customer were disclosed. The OCC argues that, when multiple customers are harmed, multiple penalties should be assessed.

49. We agree with the OCC and decline to amend Rule 3976. It is important to note that the penalties listed in Rule 3976 are only violations if the actions were "intentional."

We note further that the penalties listed are only maximums and thus will not be imposed in every instance. The Commission will retain its prosecutorial discretion in evaluating the circumstances of every alleged violation and can take any mitigating and aggravating factors, as applicable, into account in determining what the amount of penalties should be in a particular instance. We therefore deny the exceptions filed by Public Service and Black Hills on this issue.

**N. Customer Meter Request**

50. In the Recommended Decision at paragraphs 33-35, ALJ Adams stated it was reasonable for the utility to accommodate a customer's metering request for the customer who desires available technology and equipment to manage energy usage, so long as the associated costs are borne by the customer causing the requested change outside the ordinary course of business.

51. The ALJ further reasoned that the customers with keen privacy concerns might request installation of an analog meter to alleviate concerns about how existing meters transmit energy usage information. However, if the utility no longer installs analog meters for the customer class in the ordinary course of business, then the choice would not be available to the customer.

52. In its exceptions, Public Services requests that the Commission reserve consideration regarding the ability of customers to choose a meter type for their premises. It argues that this rulemaking docket contains insufficient information for the Commission to decide whether it is beneficial from a cost/benefit standpoint to offer customers the choice of different metering technologies. It argues that choosing where and how to deploy different metering technologies is a decision that involves many cost variables and is a decision that should remain within the utility's discretion.

53. We agree with Public Service that the record does not contain sufficient information on this issue. Instead, we will address this issue in future proceedings as appropriate.

**O. Implementation**

54. We order the Utilities are required to file advice letters in compliance with the rules on or before March 1, 2012.

**P. Adopted Rules Not Discussed**

55. All other rules not discussed in this decision are adopted without change from the Recommended Decision, and as attached.

**II. ORDER**

**A. The Commission Orders That:**

1. Exceptions to Recommended Decision No. R11-0922 (Recommended Decision) filed on September 19, 2011 by Public Service Company of Colorado are granted, in part, and denied, in part, consistent with the discussion above.

2. The exceptions to the Recommended Decision filed on September 19, 2011 by Black Hills/Colorado Electric Utility Company, L.P., d/b/a Black Hills Energy are granted, in part, and denied, in part, consistent with the discussion above.

3. The exceptions to the Recommended Decision filed on September 19, 2011 by the City of Boulder are denied, consistent with the discussion above.

4. The exceptions to the Recommended Decision filed on September 19, 2011 by Tendril Networks, Inc., are granted, in part, and denied, in part, consistent with the discussion above.

5. The exceptions to the Recommended Decision filed on September 19, 2011 by the Technology Network are granted, in part, and denied, in part, consistent with the discussion above.

6. The exceptions to the Recommended Decision filed on September 19, 2011 by Demand Response and Smart Grid Coalition are granted, in part, and denied, in part, consistent with the discussion above.

7. The Commission adopts the rules attached to this Order as Attachment A, consistent with the above discussion.

8. The rules shall be effective 20 days after publication in the Colorado Register by the Office of the Secretary of State.

9. The opinion of the Attorney General of the State of Colorado shall be obtained regarding the constitutionality and legality of the rules.

10. A copy of the rules adopted by the Order shall be filed with the Office of the Secretary of State for publication in the Colorado Register. The rules shall be submitted to the appropriate committee of the Colorado General Assembly if the General Assembly is in session at the time this Order becomes effective, or for an opinion as to whether the adopted rules conform with § 24-4-103, C.R.S.

11. The 20-day time period provided by § 40-6-114, C.R.S., to file an application for rehearing, reargument, or reconsideration shall begin on the first day after the effective date of this Order.

12. This Order is effective on its Mailed Date.

**B. ADOPTED IN COMMISSIONERS' DELIBERATION MEETING  
OCTOBER 17, 2011.**

(S E A L)



ATTEST: A TRUE COPY

A handwritten signature in cursive script that reads 'Doug Dean'.

Doug Dean,  
Director

THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF COLORADO

JOSHUA B. EPEL

---

JAMES K. TARPEY

---

MATT BAKER

---

Commissioners