PUBLIC UTILITIES COMMISSION
505 VAN NESS AVENUE
SAN FRANCISCO, CA 94102-3298

December 29, 2009

TO: ALL PARTIES OF RECORD IN RULEMAKING 08-12-009

Decision 09-12-046 is being mailed without the concurrence of Commissioner Grueneich. The concurrence will be mailed separately.

Sincerely,

/s/ KAREN V. CLOPTON
Karen V. Clopton, Chief
Administrative Law Judge

KVC/jt2

Attachment

COM/CRC/jt2 **Date of Issuance 12/29/2009**

Decision 09-12-046 December 17, 2009

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)

DECISION ADOPTING POLICIES AND FINDINGS PURSUANT TO THE SMART GRID POLICIES ESTABLISHED BY THE ENERGY INFORMATION AND SECURITY ACT OF 2007

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DECISION ADOPTING POLICIES AND FINDINGS PURSUANT TO THE SMART GRID POLICIES ESTABLISHED BY THE ENERGY INFORMATION AND SECURITY ACT OF 2007

1. Summary

This decision adopts policies and findings to fulfill the regulatory obligations imposed on states by the Energy Information and Security Act of 2007's (EISA)[1] amendments to the Public Utilities Regulatory Policies Act.

This decision finds that imposing EISA requirements on Sierra Pacific Power Company, Mountain Utilities, PacifiCorp, and Bear Valley Electric is inappropriate and inconsistent with the purposes of EISA. In particular, the small size of these utilities and the nature of their operations both increase the costs and diminish the benefits of the EISA requirements. Therefore, imposing EISA requirements on these utilities would not advance the purposes of EISA.

This decision declines to adopt the requirements pertaining to Smart Grid investments[2] for Southern California Edison Company (SCE), Pacific Gas and Electric Company (PG&E) and San Diego Gas & Electric Company (SDG&E), because California policy is already largely consistent with these requirements and further action would produce confusion and costs that do not advance the purposes of the act. This decision also declines to adopt for SCE, PG&E and SCE the information disclosure requirements contained in EISA pertaining to

[1] 16 U.S.C. § 2621(d). Section citations included in the text are to 16 U.S.C., unless noted otherwise.

[2] 16 U.S.C. § 2621(d)(18).

Smart Grid information[3] because prior Commission actions constitute a "prior state action" and, pursuant to § 2622(d), no further action is required at this time.

In addition, this decision adopts policies for SCE, PG&E and SCE concerning consumer access to usage and price information that will be available through California's Smart Grid infrastructure and consistent with Senate Bill 17 (Padilla)(Chapter 327, Statutes of 2009), which sets as a goal for California "[i]ncreased use of cost-effective digital information and control technology to improve reliability, security, and efficiency of the electric grid."[4] In particular, this decision establishes a policy goal that SCE, PG&E and SDG&E provide consumers with access to electricity price information by the end of 2010.

Concerning electricity usage data, we require that SCE, PG&E and SDG&E provide consumers and third parties approved by consumers with usage data that is collected by the utility by the end of 2010. The decision also requires that that SCE, PG&E and SDG&E provide those customers with smart meters and authorized third parties access to usage data on a near real time basis by the end of 2011.

A schedule to resolve outstanding issues concerning access to price information, concerning consumer and third party access to data via the "backhaul,"[5] providing necessary protections for the usage data of consumers, and complying with the requirements of Senate Bill 17 will be issued via ruling in January 2010.

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[3] 16 U.S.C. § 2621(d)(19).

[4] Pub. Util. Code § 8360(a).

[5] By "backhaul," we mean the process by which data is brought back from the meter to the utility.

The decision orders the next phase of this proceeding to determine a cost-effective way of providing this information.

Finally, the decision states the intention of this Commission to consider and, if appropriate, adopt the standards under development by the National Institute of Standards and Technology pertaining to the Smart Grid.

2. Procedural History

The Commission initiated this rulemaking to "consider setting policies, standards and protocols to guide the development of a Smart Grid system and facilitate integration of new technologies such as distributed generation, storage, demand-side technologies and electric vehicles."[6]

The Order Instituting Rulemaking (OIR) that initiated this proceeding further noted that as a consequence of amendments to the Public Utilities Regulatory Policies Act (PURPA) contained in the EISA, PURPA § 111(d)(16) now requires states "to consider imposing certain requirements and authorizing certain expenditures"[7] pertaining to the Smart Grid.[8]

After the issuance of the OIR, the Recovery Act appropriated $4.5 billion "to modernize the electric grid" through activities including the Smart Grid programs authorized by EISA.[9] The Recovery Act also amended several EISA

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[6] OIR at 2.

[7] OIR at 8.

[8] The American Recovery and Reinvestment Act of 2009 (Recovery Act), Pub. L. 111-5 (H.R. 1), 123 Stat. 115 at Division A, Title IV, Sec. 408 redesignated PURPA § 111(d)(16) as § 111(d)(18).

[9] The Recovery Act, Section 2, Division A, Title IV, Energy and Water Development states: "For an additional amount for 'Electricity Delivery and Energy Reliability,' $4,500,000,000: Provided, That funds shall be available for expenses necessary for

Footnote continued on next page

provisions pertaining to the Smart Grid.[10] For example, the Recovery Act increased the percentage of federal support for the EISA § 1306 program from 20% to up to 50%. The amendments broadened the potential recipients of EISA § 1304 funding to include electric utilities *and* "other parties." The Recovery Act also added a requirement that funded projects must use "open protocols and standards (including Internet-based protocols and standards) if available and appropriate."[11]

Pursuant to the OIR, parties filed opening comments on February 9, 2009,[12] with reply comments filed on March 9, 2009.[13]

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electricity delivery and energy reliability activities to modernize the electric grid, to include demand responsive equipment, enhance security and reliability of the energy infrastructure, energy storage research, development, demonstration and deployment, and facilitate recovery from disruptions to the energy supply, and for implementation of programs authorized under title XIII of the Energy Independence and Security Act of 2007 (EISA) (42 U.S.C. 17381 et seq.) … "

[10] The Recovery Act at Division A, Title IV.

[11] The Recovery Act § 405.

[12] Comments were filed by Current Group, LLC (Current), California Energy Storage Alliance (CESA), the California Independent System Operator Corporation (CAISO), NRG Energy Inc. and Padoma Wind Power LLC (filing jointly), the Division of Ratepayer Advocates (DRA), the Consumer Federation of California (CFC), Sierra Pacific, SDG&E, Technology Network (TechNet), CPower, Inc., the California Association of Small and Multi-Jurisdictional Utilities (CASMU), Enspiria Solutions, Inc. (Enspiria), The Utility Reform Network (TURN), Western Power Trading Forum (WPTF), Center for Energy Efficiency and Renewable Technologies (CEERT), SCE, Sam's West, Inc. and Wal-Mart Stores, Inc., (filing jointly) (Wal-Mart), PG&E, PacifiCorp, Google Inc. (Google), and California Large Energy Consumers Association (CLECA).

[13] Reply Comments were filed by SCE, PG&E, CAISO, TURN, Current, Community Environmental Council, CFC, SDG&E, Green Power Institute, CEERT, and DRA.

On March 3, 2009, the Administrative Law Judge (ALJ) issued a ruling scheduling a prehearing conference (PHC) and a workshop to address the Smart Grid funding available through the Recovery Act.

On March 19, 2009, the Federal Energy Regulatory Commission (FERC) issued a *Proposed Policy Statement and Action Plan*.[14] FERC stated that:

> The purpose of the policy statement [that FERC] ultimately adopts will be to prioritize the development of key interoperability standards, provide guidance to the electric industry regarding the need for full cybersecurity for Smart Grid projects, and provide an interim rate policy under which jurisdictional public utilities may seek to recover the costs of Smart Grid deployments before relevant standards are adopted through a [FERC] rulemaking.[15]

On March 27, 2009, a PHC took place at the Commission offices in San Francisco to take appearances in the proceeding, to refine the scope of the proceeding, and to develop a procedural timetable for the management of this proceeding. At the PHC, the assigned Commissioner indicated her preferences for the management of the proceeding via two decisions, one addressing the issues raised by the Recovery Act, and one addressing the many other issues set forth in the OIR and by EISA.

On May 1, 2009, a *Scoping Memo and Ruling of Assigned Commissioner* (Scoping Memo) set the scope and procedural schedule for resolving the issues set out in the OIR. In addition, the Scoping Memo stated:

> The scope of this proceeding shall also include those issues pertaining to Smart Grid affected by the Recovery Act legislation.

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[14] *Smart Grid Policy*, 126 FERC ¶ 61, 253, Proposed Policy Statement & Action Plan (March 19, 2009).

[15] *Id*. at 3.

> A separate ruling will propose a reporting process and will address how this Commission will fulfill its responsibilities concerning an investor-owned utility's contributions of ratepayer-backed funds to Recovery Act activities.[16]

On May 29, 2009, the assigned Commissioner issued an Assigned Commissioner's Ruling (ACR) amending the scope of the proceeding.[17] The ACR noted that "[t]he Smart Grid funding provided by the Recovery Act creates a unique opportunity for California to expand and accelerate its activities to modernize the state's electric infrastructure, using some federal dollars."[18] To take advantage of this opportunity, the ACR amended the scope of the rulemaking and solicited comments pertaining to Recovery Act issues.

On June 8, 2009, the DRA filed an Appeal of Categorization, arguing that because of the amended scope, the proceeding should be recategorized as "ratemaking." Responses to DRA's appeal were submitted by CFC, PG&E, CAISO and SCE by June 12, 2009. On June 18, 2009, the Commission adopted Decision (D.) 09-06-043, which denied the appeal of categorization.

On June 25, 2009, United States Department of Energy (DOE) issued a final Funding Opportunity Announcement (FOA) pertaining to the Smart Grid Investment Grant Program and a final FOA pertaining to the Smart Grid Demonstrations Program. On June 26, 2009, DOE issued "Frequently Asked

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[16] Scoping Memo at 7-8.

[17] *Assigned Commissioner's Ruling Amending the Scope and Schedule of Proceeding to Address Policy Issues Pertaining to Smart Grid Funding Appropriated in the American Recovery and Reinvestment Act of 2009* (ACR), May 29, 2009.

[18] *Id.* at 2.

Questions" documents pertaining to the two programs.[19] On July 8, 2009, an ALJ Ruling took official notice of the DOE documents and attached them as reference for the parties in this proceeding.[20] On July 16, 2009 FERC adopted a Smart Grid Policy Statement.[21]

On July 21, 2009, a proposed decision (PD) to create a review process for projects submitted to DOE for funding was mailed. On September 10, 2009, the Commission adopted D.09-09-029, which created a process for reviewing the projects developed by Investor Owned Utilities (IOUs) to seek Recovery Act funds.

Concerning the Smart Grid issues identified in EISA and in the OIR in this proceeding, the Commission held a Symposium with invited experts on April 21, 2009.

Subsequently, the Commission held a series of workshops addressing topics by issue area. On May 27, 2009, a workshop addressed consumer issues, including privacy, that are raised by the deployment of a Smart Grid. On June 5, 2009, a workshop addressed technical and policy issues concerning the Smart Grid and its affects on the distribution networks of electric utilities. On June 28, a workshop addressed the technical and policy issues concerning the Smart Grid

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[19] U.S. Department of Energy, *Financial Assistance Funding Opportunity Announcement: Smart Grid Investment Grant Program* (DE-FOA-0000058) *Frequently Asked Questions*, June 26, 2009; and U.S. Department of Energy, *Financial Assistance Funding Opportunity Announcement: Smart Grid Demonstration Program* (DE-FOA-0000036), *Frequently Asked Questions*, June 26, 2009.

[20] *Administrative Law Judge's Ruling Taking Official Notice of Certain Department of Energy Publications Associated with the Recovery Act*, July 8, 2009.

[21] *Smart Grid Policy*, 128 FERC ¶ 61, 060, July 16, 2009.

and its affects on the transmission network for electric power and energy storage within California. On July 15, 2009, a Smart Grid workshop addressed technical and policy issues that the deployment of plug-in electric vehicles will pose for California electric networks. On July 31, 2009, a workshop addressed the best regulatory approach for conducting regulatory reviews of Smart Grid infrastructure investments that will permit a thorough yet timely review.

On September 28, 2009, a Joint Ruling of the assigned Commissioner and ALJ (Joint Ruling) sought formal comments and replies on policies and findings pertaining to EISA.

During the period of this proceeding, Smart Grid policies have also been the subject of California legislation. Governor Schwarzenegger, on October 11, 2009, signed Senate Bill (SB) 17 (Padilla) into law.[22]

On October 26, 2009, DRA, Californians for Renewable Energy (CARE), CFC, TURN, CFC and TURN (filing jointly), Google, CEERT, CLECA, SCE, PG&E, SDG&E, Mountain Utilities, CASMU, Wal-Mart, Pacificorp, and Tendril Networks (Tendril) filed opening comments. Tendril also filed a motion to become a party to this proceeding.[23]

On November 2, 2009, TURN, DRA, CFC, PG&E, SCE and North American Power Partners (NAPP) filed reply comments. NAPP also filed a motion to become a party to this proceeding.[24]

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[22] SB 17 (Padilla) (Chapter 327, Statutes of 2009).

[23] The Tendril motion is granted below.

[24] The NAPP motion is granted below.

3. Federal Law and Proceeding Scope

This proceeding was initiated in part to fulfill the statutory requirements that EISA added to PURPA and in part to develop state policies that develop a Smart Grid in ways beneficial to California and consistent with state policies towards renewable energy, distributed generation, combined heat and power, demand response, and other programs already in place.

The September 28, 2009, Joint Ruling proposed a legal analysis of what the federal statutes require the Commission to consider and invited parties to comment. Because EISA creates specific tasks for this Commission, we repeat this analysis.

3.1. The EISA Amendments to PURPA Create Five Tasks for This Proceeding

Section 1307 of EISA amended § 111(d)[25] of PURPA by adding two paragraphs regarding the Smart Grid. After corrections of initial clerical errors,[26] these became paragraphs 18 and 19 in 16 U.S.C. § 2621(d). For clarity, we include them here:

> 16 U.S.C. § 2621(d)(18) Consideration of Smart Grid investments.
>
> (A) In general. Each State shall consider requiring that, prior to undertaking investments in nonadvanced grid technologies, an electric utility of the State demonstrate to the State that the electric utility considered an investment in a qualified smart grid system based on appropriate factors, including —
>
> (i) total costs;
> (ii) cost-effectiveness;
> (iii) improved reliability;

[25] 16 U.S.C. 2621(d).

[26] The corrections to the numbering of paragraphs were made in the Recovery Act.

(iv) security;
(v) system performance; and
(vi) societal benefit.

(B) Rate recovery. Each State shall consider authorizing each electric utility of the State to recover from ratepayers any capital, operating expenditure, or other costs of the electric utility relating to the deployment of a qualified smart grid system, including a reasonable rate of return on the capital expenditures of the electric utility for the deployment of the qualified smart grid system.

(C) Obsolete equipment. Each State shall consider authorizing any electric utility or other party of the State to deploy a qualified smart grid system to recover in a timely manner the remaining book-value costs of any equipment rendered obsolete by the deployment of the qualified smart grid system, based on the remaining depreciable life of the obsolete equipment.

and

16 U.S.C. § 2621(d)(19) Smart Grid information.

(A) Standard. All electricity purchasers shall be provided direct access, in written or electronic machine-readable form as appropriate, to information from their electricity provider as provided in subparagraph (B).

(B) Information. Information provided under this section, to the extent practicable, shall include:

(i) Prices. Purchasers and other interested persons shall be provided with information on – (I) time-based electricity prices in the wholesale electricity market; and (II) time-based electricity retail prices or rates that are available to the purchasers.

(ii) Usage. Purchasers shall be provided with the number of electricity units, expressed in kWh, purchased by them.

(iii) Intervals and projections. Updates of information on prices and usage shall be offered on not less than a daily basis, shall include hourly price and use information,

where available, and shall include a day-ahead projection of such price information to the extent available.

(iv) Sources. Purchasers and other interested persons shall be provided annually with written information on the sources of the power provided by the utility, to the extent it can be determined, by type of generation, including greenhouse gas emissions associated with each type of generation, for intervals during which such information is available on a cost-effective basis.

(C) Access. Purchasers shall be able to access their own information at any time through the Internet and on other means of communication elected by that utility for Smart Grid applications. Other interested persons shall be able to access information not specific to any purchaser through the Internet. Information specific to any purchaser shall be provided solely to that purchaser.

Because of the structure of PURPA, the obligations imposed upon states by regulatory standards adopted in paragraphs 18 and 19 become clear only through a reading of the introductory section of 16 U.S.C. § 2621 and 16 U.S.C. § 2611:

16 U.S.C. § 2621:

(a) Consideration and determination. Each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated electric utility shall consider each standard established by subsection (d) and make a determination concerning whether or not it is appropriate to implement such standard to carry out the purposes of this chapter. For purposes of such consideration and determination in accordance with subsections (b) and (c), and for purposes of any review of such consideration and determination in any court in accordance with section 123 [16 USCS § 2633], the purposes of this title supplement otherwise applicable State law. Nothing in this subsection prohibits any State regulatory authority or nonregulated electric utility from making any determination that it is not appropriate

to implement any such standard, pursuant to its authority under otherwise applicable State law.

(b) Procedural requirements for consideration and determination.

(1) The consideration referred to in subsection (a) shall be made after public notice and hearing. The determination referred to in subsection (a) shall be —

(A) in writing,

(B) based upon findings included in such determination and upon the evidence presented at the hearing, and

(C) available to the public.

(2) Except as otherwise provided in paragraph (1), in the second sentence of § 112(a) [16 USCS § 2622(a)], and in §§ 121 and 122 [16 USCS §§ 2631, 2632], the procedures for the consideration and determination referred to in subsection (a) shall be those established by the State regulatory authority or the nonregulated electric utility.

(c) Implementation.

(1) The State regulatory authority (with respect to each electric utility for which it has ratemaking authority) or nonregulated electric utility may, to the extent consistent with otherwise applicable State law —

(A) implement any such standard determined under subsection (a) to be appropriate to carry out the purposes of this chapter, or

(B) decline to implement any such standard.

(2) If a State regulatory authority (with respect to each electric utility for which it has ratemaking authority) or nonregulated electric utility declines to implement any standard established by subsection (d) which is determined under subsection (a) to be appropriate to carry out the purposes of this title, such authority or nonregulated electric utility shall state in writing the reasons therefore. Such statement of reasons shall be available to the public.

> (3) If a State regulatory authority implements a standard established by subsection (d)(7) or (8), such authority shall—
>
> (A) consider the impact that implementation of such standard would have on small businesses engaged in the design, sale, supply, installation or servicing of energy conservation, energy efficiency or other demand side management measures, and
>
> (B) implement such standard so as to assure that utility actions would not provide such utilities with unfair competitive advantages over such small businesses.

Thus, this section of PURPA sets rules on how the Commission, acting for the state of California, is to "determine" whether to adopt a particular requirement. The Commission is to "make a determination concerning whether or not it is appropriate to implement such standard to carry out the purposes of this chapter." In making this determination, PURPA requires the Commission to provide public notice, make the determination in writing, make findings that support the determination based on evidence presented, and make the determination available to the public.

Furthermore, the "purposes of this chapter" are defined not in EISA, but in § 2611 of PURPA. It reads as follows:

> 16 U.S.C. § 2611:
>
> The purposes of this chapter are to encourage: (1) conservation of energy supplied by electric utilities; (2) the optimization of the efficiency of use of facilities and resources by electric utilities; and (3) equitable rates to electric consumers.

In addition, even if the Commission determines that a requirement would advance the purposes of the act, the Commission has authority under PURPA to either implement or decline to implement the standard. If the Commission

declines to implement a standard deemed as advancing the purposes of the act, however, the Commission must explain its reasons for so doing.

To summarize, the EISA amendments, in the context of PURPA, impose on states an obligation to determine whether to adopt a specific statutory standard as consistent with the purposes of the act and then to determine whether to impose the standard on each utility subject to state ratemaking jurisdiction. The law delegates to the state broad power, to the extent consistent with state law, to determine the specific requirements of the standards as long as they are "consistent with the purposes of this chapter."

Finally, 16 U.S.C. § 2622 requests that the states make the determinations required by 16 U.S.C. § 2621. EISA amended 16 U.S.C. § 2622(b), which generally contains time limitations, to add a timetable for a state's determinations of whether to adopt the standards proposed in 16 U.S.C. § 2621(d)(18) and (19). Specifically, 16 U.S.C. § 2622(b)(6) now reads:

> (6) (A) Not later than 1 year after December 19, 2007, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority) and each nonregulated utility shall commence the consideration referred to in section 2621 of this title, or set a hearing date for consideration, with respect to the standards established by paragraphs (17) through (18) of section 2621(d) of this title.
>
> (B) Not later than 2 years after December 19, 2007, each State regulatory authority (with respect to each electric utility for which it has ratemaking authority), and each nonregulated electric utility, shall complete the consideration, and shall make the determination, referred to in section 2621 of this title with respect to each standard established by paragraphs (17) through (18) of section 2621(d) of this title.

In addition, we note that 16 U.S.C. § 2622(d) states:

> (d) Prior State actions. Subsections (b) and (c) of this section shall not apply to the standards established by paragraphs (11) through (13) and paragraphs (16) through (19) of section 111(d) [16 USCS § 2621(d)] in the case of any electric utility in a State if, before the enactment of this subsection -- (1) the State has implemented for such utility the standard concerned (or a comparable standard); (2) the State regulatory authority for such State or relevant nonregulated electric utility has conducted a proceeding to consider implementation of the standard concerned (or a comparable standard) for such utility; or (3) the State legislature has voted on the implementation of such standard (or a comparable standard) for such utility.

16 U.S.C. § 2622 also states:

> In the case of the standards established by paragraphs (16) through (19) of section 111(d) [16 USCS § 2621(d)], the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraphs [enacted Dec. 19, 2007].

As a result, this proceeding will determine for each electric utility under the Commission's ratemaking authority the following questions pertaining to ratemaking:

1. Whether to require a consideration of Smart Grid investments before making any new investment in the grid;
2. Whether to adopt a special ratemaking treatment for Smart Grid investments; and
3. Whether the Commission should adopt a policy authorizing a utility to recover the remaining book value of equipment made obsolete by Smart Grid investments.

In addition, the proceeding must also consider requirements for information disclosure to customers by electric utilities. Specifically,

4. Whether to require utilities to provide customers with access in written and/or electronic form to information concerning
   (i) Prices.
   (ii) Usage.

(iii) Daily updates of prices with details on hourly basis and day ahead projections to the extent available.

(iv) Sources – annually with written information on the sources of the power provided by the utility, to the extent it can be determined, by type of generation, including greenhouse gas emissions associated with each type of generation, for intervals during which such information is available on a cost-effective basis.

5. Whether to impose a requirement on utilities to provide purchasers of electric power with access to their own information at any time through the Internet and on other means of communication elected by that utility for Smart Grid applications and whether to provide to other interested persons access to information on electricity use and prices not specific to any purchaser through the Internet. Whether Information specific to any purchaser should be provided solely to that purchaser.

For each of these requirements, the Commission will consider whether, in the California context, the requirement is consistent with the purposes of EISA and whether to impose the requirement.

3.2. Comments Pertaining to Legal Analysis in the Joint Ruling

Few parties to the proceeding commented on the legal analysis contained in the Joint Ruling.

DRA states that "[t]he Ruling accurately describes the Commission's legal obligations under the Public Utilities Regulatory Policies Act (PURPA), as amended by the Energy Information and Security Act."[27] DRA argues that the "ruling fails to mention that for PURPA Section 111(d) paragraph 18, the prior state actions must have occurred before August 8, 2005."[28] This comment,

[27] DRA Comments on Joint Ruling at 2.

[28] *Id*.

however, overlooks 16 U.S.C. § 2622, which states "the reference contained in this subsection to the date of enactment of this Act shall be deemed to be a reference to the date of enactment of such paragraphs [enacted Dec. 19, 2007]." This section effectively changes the August 8, 2005 date to December 19, 2007.

CFC argues that full evidentiary hearings are needed to comply with the requirements of EISA.[29]

CFC fails to identify a factual dispute that would warrant hearings. For example, CFC asks for hearings, because, among other things "[w]e don't know how SDG&E defines 'smart grid.'"[30] This, however, is not a factual dispute. Moreover, we see no reason to define smart grid at this time beyond the characteristics contained in EISA. We further note that no party joins CFC in this request of hearings.

Concerning the federal requirements to provide public notice, to make determinations in writing, and to make findings that support determinations based on evidence presented, we note that the Commission's standard procedures comport with state statutory requirements that impose these requirements on the Commission. Moreover, the record on several of the EISA topics is already quite extensive.

We further note that Commission procedures guarantee that the conclusions the Commission reaches will be publicly available in the form of a written decision, which will be subject to public notice and comment. For these

[29] CFC Comments on Joint Ruling at 2.

[30] *Id*. at 3.

reasons, Commission deliberation creates a process that conforms to the procedural requirements of PURPA as amended by EISA.

For these reasons, there is no reason to amend the legal analysis contained in the Joint Ruling.

4. EISA Obligations Related to Smart Grid Investment

4.1. Should the Commission Require Each Utility to Demonstrate That it Has Considered a Smart Grid Investment Before Making Any Grid Investment?

As the legal analysis above makes clear, PURPA, as amended by EISA, requires that for each electric utility subject to the Commission's ratemaking authority, the Commission must make findings as to whether to require that the utility, before investing in any nonadvanced grid technologies, demonstrate that it has considered a Smart Grid investment based on factors that include: (i) total costs; (ii) cost-effectiveness; (iii) improved reliability; (iv) security; (v) system performance; and(vi) societal benefit.

This section considers whether this Commission should adopt this requirement as consistent with the purposes of EISA in the California context.

4.1.1. Comments on the OIR

In comments filed in this proceeding, the California IOUs were uniform in their opposition to the imposition of a requirement that a utility demonstrate that it has considered a Smart Grid investment before investing in any nonadvanced grid technologies.

SCE opposes the adoption of this requirement. SCE argues that "[w]hile SCE strongly supports the intent of EISA Section 1307(a), which seeks to promote the deployment of a smart grid electric system, we are concerned that the language of this section, if taken to an extreme, might inadvertently delay ongoing and necessary electric utility capital deployment and infrastructure

replacement programs."[31] In addition, SCE argues that "even with emerging advancements in energy technologies, telecommunications, and computing technology capabilities, the electric power delivery system over the next ten years will largely continue to consist of longstanding and proven technologies, such as conductors, poles, towers, and transformers."[32]

SDG&E also argues against requiring a utility to demonstrate that it has considered an investment in a Smart Grid system before undertaking investments in nonadvanced grid technologies. SDG&E argues that "[s]mart grid investment decisions should be made a part of every utility's normal investment planning process."[33] SDG&E therefore argues that such a requirement is not necessary. Moreover, SDG&E argues that such a requirement would be counterproductive and lead to inefficiencies in infrastructure development. SDG&E argues that "if a utility is required to demonstrate to the Commission that it considered an investment in a qualified smart grid system as an alternative, it would lengthen the investment planning process and make it less efficient."[34]

PG&E similarly argues that the Commission should not impose such a requirement on any utility. PG&E points out that "the EISA 'smart grid' definition is broad and somewhat imprecise, so that determining the technical difference between smart grid and non-smart grid investments cannot be made

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[31] SCE Comments at 14.

[32] *Id.*

[33] SDG&E Comments at 6.

[34] *Id.*

without further evaluation and review by individual state utility commissions and policymakers."[35] Thus, PG&E's view is that it would prove difficult to determine to which activities the requirement applies.

CASMU states that:

> Mountain Utilities is not connected to any transmission system. Bear Valley Electric Service is physically connected to the distribution system of Southern California Edison Company. PacifiCorp owns a transmission grid spanning several states, and operates its own control area, which is not connected to the CAISO grid operationally. Sierra Pacific Power Company operates its own control area as well, and like PacifiCorp, Sierra Pacific's grid in not connected operationally with the CAISO grid.[36]

PacifiCorp argues that "[s]mall utilities and multi-jurisdictional utilities with small California customer bases should be excluded from this requirement."[37] Because of these facts, CASMU argues that these utilities should not be held to any of EISA's proposed requirements for the Smart Grid at this time.

Sierra Pacific argues that "the programs proposed for smart grid implementation may achieve certain goals in the three large IOUs' service territories, while being impracticable in Sierra's much smaller California territory."[38] On the other hand, Sierra Pacific notes that it "is in the process of investigating a smart grid program for its Nevada territory."[39]

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[35] PG&E Comments at 7.

[36] CASMU Comments at 3.

[37] PacifiCorp Comments at 3.

[38] Sierra Pacific Comments at 3.

[39] *Id.*

The opposition to this requirement was not limited to IOUs. Enspiria similarly argues that "[i]mposing a strict interpretation of this section will be overly burdensome."[40]

TURN, like PG&E, also notes the lack of clarity as to what constitutes either a Smart Grid investment or a "non-advanced grid technology."[41] As a result, "TURN recommends that the Commission defer any decision on this proposed standard until there is a more definitive definition of what constitutes a 'smart grid' investment and a better understanding of the current status of a utility's conformance to a 'smart grid' system."[42]

DRA argues that "[w]ithout specifics on what technologies the Commission requires makes it inherently difficult to make this consideration a requirement."[43]

Some parties, however, did support the imposition of this requirement. CFC argues that the Commission should impose this requirement, but CFC does not provide any analysis to support its recommendation.[44] CFC does, however, quote a California Energy Commission's 2007 Integrated Energy Policy Report, that it contends endorses this position.[45]

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[40] Enspiria Comments at 5.

[41] TURN Comments at 6.

[42] *Id.* at 7.

[43] DRA Comments at 4.

[44] CFC Comments at 21.

[45] *Id.* at 21.

CPower also supports the imposition of such a requirement without a supporting argument [46] as does TechNet.[47]

CLECA argues that "[p]rior to undertaking investments in either non-advanced or advanced grid-technologies, the Commission should require that any investment meet the criteria listed above in a cost-effective manner that minimized the obsolescence of existing equipment and thus the need for customers to pay for stranded costs."[48]

4.1.2. Comments on the Joint Ruling

In response to the Joint Ruling's invitation for further comments, PG&E expressed support for the Joint Ruling's proposal to abstain from requiring a demonstration that a utility had considered a Smart Grid investment before making a grid investment.[49]

SCE also supports this position, arguing that:

> Given that the substantial majority of current capital deployment occurs in proven core technologies, it seems burdensome and unreasonable to mandate that electric utilities formally demonstrate that they "considered" Smart Grid processes and technologies that may not even be commercially available.[50]

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[46] CPower Comments at 3.

[47] TechNet Comments at 6.

[48] CLECA Comments at 6.

[49] PG&E Comments on Joint Ruling at 2.

[50] SCE Comments on Joint Ruling at 3.

CASMU states that it "broadly supports the tentative conclusions of the Joint Ruling declining to implement the Smart Grid standards …"[51] Mountain Utilities supports the CASMU position.[52]

Sierra Pacific argues that "unique characteristics of Sierra Pacific's service territory" make it reasonable to decline "to implement these federal standards upon Sierra …"[53]

DRA supports the Joint Ruling's proposal to not adopt this PURPA standard. DRA notes that "[w]hile a utility need not demonstrate that it has considered a Smart Grid investment every time it invests in the grid, the Commission should provide direction to the utilities about developing a Smart Grid, guidance in making grid investments to support development of a Smart Grid, and criteria by which to review those investment requests."[54]

TURN states that it "agrees with the recommendation that the Commission not adopt the standard as written in EISA," but that TURN "cautions that lack of consideration of 'smart grid' alternatives could eventually harm ratepayers if it results in stranded costs."[55] On the other hand, TURN also states that "[a] policy that requires utilities either to explain that there is no alternative 'smart grid'

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[51] CASMU Comments on Joint Ruling at 2.

[52] Mountain Utilities Comments on Joint Ruling at 2.

[53] Sierra Pacific Comments on Joint Ruling at 2.

[54] DRA Comments on Joint Ruling at 3.

[55] TURN Comments on Joint Ruling at 3.

investment for a particular asset class … could promote both efficient use of resources and equitable rates."[56]

On this issue, CFC objects to the policy proposed in the Joint Ruling and notes that "[a] smart grid deployment plan must be developed under SB 17 Padilla."[57]

CEERT reasserts that the Commission should adopt this requirement. CEERT argues that:

> The Commission first needs to set a policy course for what it intends to accomplish by deploying Smart Grid technologies and applications. Once that policy is established, utilities should be required to demonstrate that they are building their systems to meet these goals and objections.[58]

CEERT also argues that "[i]t is fundamentally the obligation of the proponent to demonstrate the need for an investment and carry the burden of proof."[59]

CLECA, in contrasts, supports the Joint Ruling's proposal to decline to adopt a standard requiring a regulatory showing before making an investment in the local grid, noting that "many grid replacements are routine matters that do not require Smart Grid consideration" and that "such a requirement would require additional time, effort, and paperwork."[60] Moreover, CLECA notes that

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[56] *Id*. at 4.

[57] CFC Comments on Joint Ruling at 6.

[58] CEERT Comments on Joint Ruling at 4.

[59] *Id*. at 5.

[60] CLECA Comments on Joint Ruling at 4.

"the Commission has the ability to address utility investments in a wide variety of proceedings and can consider the most appropriate alternatives."[61]

4.1.3. Discussion

We decline to adopt the proposed EISA requirement that a utility demonstrate that it considered Smart Grid investments before making any new investments in the grid. Specifically, applying such a requirement on California utilities is inconsistent with the purposes of the act, which seek to optimize the efficient use of facilities and resources by electric utilities and to produce equitable rates for electric consumers.[62]

For Sierra Pacific, Mountain Utilities, PacifiCorp and Bear Valley Electric, we find that the small size of these utilities and the nature of their operations makes it inappropriate to impose such a requirement. Specifically, Sierra Pacific, Mountain Utilities, and PacifiCorp do not operate within the CAISO's control area. Bear Valley Electric, which does, is only a distribution customer of another larger utility. Thus, a requirement to consider Smart Grid investments before making any grid investment would only impose costs and inefficiencies on these small IOUs while producing no benefits.

In addition to this finding for small IOUs, we find that adopting such a blanket requirement for any IOU would not serve the public interest. First, many grid investments, such as a pole replacement or grid extension, are routine matters and tasks that utilities must perform. A requirement to make a consideration of a "Smart Grid" technology a prerequisite to such action would

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[61] *Id*.

[62] 16 U.S.C. § 2611.

almost surely increase costs and eventually consumer rates while increasing response times for services. Thus, a requirement that a utility consider a "Smart Grid" investment in such a circumstance is inconsistent with the purposes of the act, which seek to produce equitable rates to consumers. Moreover, for the foreseeable future, much of the technology used in the distribution network, such as poles, wires, and trenching, will remain decidedly "non-smart."

Second, for all utilities, the imposition of a requirement to demonstrate that the utility has considered a Smart Grid investment would impose a regulatory hurdle that can slow infrastructure investment and modernization, thereby undercutting the PURPA purpose of producing the efficient use of facilities and resources by electric utilities.

Third, the utilities' routine regulatory proceedings offer an opportunity for the consideration of Smart Grid investments as part of the Commission's review of any grid or transmission project. Although we believe that the public interest is served by a consideration of Smart Gird investments in most instances, we conclude that the Commission should decline to make such a consideration a requirement. We note that SB 17 requires that the Commission "shall determine the requirements for a smart grid deployment plan."[63] This approach is very different from that proposed in EISA. SB 17 requires that the Commission adopt policies that guide investments in a Smart Grid, while the EISA requirement, if adopted, would suspend grid investment until the Commission considered a "showing as to why [a utility] didn't choose a 'more advanced' technology in the case of *each and every one* of the thousands of grid components that utilities invest

[63] Cal. Pub. Util. Code § 8362.

in each year …"[64] Such an approach would clearly be burdensome and contrary to cost-effective practices.

In summary, the imposition of a requirement to consider Smart Grid investments even in situations for which there is no rational basis would produce costs without benefits and is therefore inconsistent with the purposes of EISA.

4.2. Should the Commission Authorize Each Electric Utility to Recover From Ratepayers Any Capital, Operating Expenditure, or Other Costs of the Electric Utility Relating to the Deployment of a Qualified Smart Grid System, Including a Reasonable Rate of Return?

EISA requires that each state consider "authorizing each electric utility of the State to recover from ratepayers any capital, operating expenditure, or other costs of the electric utility relating to the deployment of a qualified smart grid system, including a reasonable rate of return on the capital expenditures of the electric utility for the deployment of the qualified smart grid system."[65] This section develops our assessment as to whether such a requirement would be necessary and consistent with the purposes of the act.

4.2.1. Comments on the OIR

Each of the responding California IOUs support adopting this requirement of authorizing recovery of capital, operating expenditures and other costs associated with a qualified Smart Grid system from ratepayers.

SCE argues that "[s]mart grid development and deployment expenses should be recoverable from ratepayers."[66] SCE cites Commission decisions,

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[64] SCE Reply Comments on Joint Ruling at 3.

[65] 16 U.S.C. § 2621(d)(18)(B).

[66] SCE Comments at 15.

potential benefits and state law. SCE asserts that "[e]xisting precedent, potential benefits, and existing state law support utility recovery of its costs and investments."[67]

SDG&E argues that "smart grid assets should be included in the utility asset base similar to any asset that is deemed 'used and useful' for the ratepayer."[68] SDG&E further argues that these assets "warrant the design of an incentive-based rate of return (ROR) for smart grid assets."[69]

Similarly, PG&E argues that "the Commission should authorize an electric utility to recover any reasonable costs associated with the deployment of qualified smart grid projects, investments and programs, including an incentive rate of return on such investments if they meet or support major energy policy goals of the state …"[70]

Sierra Pacific argues that "[t]o the extent that the Commission imposes goals, measures, or other criteria upon Sierra's California service territory, then such costs should be recovered from Sierra's California customers."[71]

PacifiCorp similarly argues that "[y]es, utilities should be able to recover the costs of implementing and operating smart grid systems within their

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[67] *Id.*

[68] SDG&E Comments at 6.

[69] *Id.* at 7.

[70] PG&E Comments at 8.

[71] Sierra Pacific at 7.

California service territories from their customers within those service territories."[72]

DRA does not support special rate treatment for Smart Grid assets. DRA notes that:

> … the Commission considered and authorized the rate recovery of AMI [Advanced Meter Infrastructure] deployment in Applications (A.) 05-03-015, A.05-06-028 and A.07-07-026 based on the following criteria: total costs; cost effectiveness; improved reliability; security; system performance; and societal benefit. … This rulemaking should adopt these standards to remain consistent with existing Commission policy, and for the purpose of federal statutory compliance with PURPA …[73]

TURN "recommends that the Commission NOT adopt this federal standard."[74] TURN views this federal standard as imposing special ratemaking standards for Smart Grid investments, and argues:

> The Commission should not grant electric utilities with any "special" or unique ratemaking treatment for smart grid investments, however defined. Rate recovery for smart grid investments should be governed by traditional ratemaking policies, all of which are designed to ensure that utilities do recover reasonable and cost effective expenditures through rates and allowed [sic] an opportunity to earn a reasonable rate of return on capital investments.[75]

Thus, TURN sees following traditional ratemaking practices as a rejection of the federal standard.

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[72] PacifiCorp Comments at 3.

[73] DRA Comments at 5.

[74] TURN Comments at 7, emphasis in original.

[75] TURN Comments at 7-8.

CFC also supports traditional ratemaking, stating that:

> … [o]nce smart grid investments are isolated, then the traditional rules of ratemaking should apply to those investments. If an investment is prudent and the capital addition is used and useful to utility service, and if costs classified as expenses are reasonable, they are recoverable.[76]

TechNet "agrees that the Commission should authorize recovery for qualified Smart Grid systems."[77] TechNet, furthermore, argues that "[w]here necessary, a slightly higher rate of return authorization might incentivize utilities to accelerate Smart Grid investment projects."[78]

CPower takes a more cautious approach, arguing that "[t]he utility should be required to demonstrate that any investments it makes are based on a comprehensive review of all resources, including non-traditional resources such as demand response, that can best meet the needs of its customers at the lowest possible cost."[79]

Enspiria argues that:

> If investments in smart grid related solutions are going to become the mainstay of electric utilities instead of a temporary program, then utilities need to have confidence that their investments in these technologies and solutions will not face higher hurdles than current utility investments. This would indicate that utilities should be able to enjoy the same rates of return and cost recovery as other expenditures.[80]

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[76] CFC Comments at 25.

[77] TechNet Comments at 7.

[78] *Id.*

[79] CPower Comments at 2.

[80] Enspiria Comments at 5.

4.2.2. Comments on the Joint Ruling

The Joint Ruling requested comments on its proposal to rely on the Commission's traditional ratemaking proceedings to examine Smart Grid investments.

SCE agrees that no special ratemaking treatment is warranted and notes that the creation of a new standard providing a special incentive for Smart Grid investments "may create confusion, prove counterproductive, and lead to regulatory delays."[81]

PG&E supports the proposed policy to rely on traditional ratemaking procedures, but requested "that the Commission clarify that its rejection of a 'premium' return on Smart Grid investments is not intended to preclude a utility or the Commission from proposing or adopting an incentive or 'premium' rate of return for Smart Grid investments on a case-by-case basis …"[82]

TURN also opposes adopting the federal standard, noting that:

> … the proposed federal standard uses the term "deployment" rather than the term "used and useful." This distinction could result in unnecessary and contentious litigation if potential smart grid "deployments" are terminated prior to the assets being place in service.[83]

DRA argues that:

> If the Commission simply affirms the close similarities between the PURPA standards and the AMI Business Case Analysis Framework, the Commission will find that it has made comparable

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[81] SCE Comments on Joint Ruling at 5.

[82] PG&E Comments on Joint Ruling at 2.

[83] TURN Comments on Joint Ruling at 6.

considerations in its R.02-06-001, hence complying with Section 1307 through a prior state action.[84]

DRA also argues that "[t]he Ruling correctly rejects special ratemaking treatment …" and cautions that "[t]he Commission risks double cost recovery when it allows rate recovery for Smart Grid distribution-level investments outside of the GRC process."[85]

CFC argues that "[t]here is no need for an incentive …"[86]

CARE argues that the Smart Grid "should be subject to the Commission's traditional ratemaking."[87]

CLECA similarly argues that "Smart Grid investments do not require special ratemaking treatment."[88]

CEERT states that "it opposes the Joint Rulings proposed policy." CEERT desires that the Commission develop "Smart Grid deployment plans …"[89]

4.2.3. Discussion

There is little significant difference between the Commission traditional ratemaking procedures, which offer IOUs a reasonable return on investments made to provide service to ratepayers, and the proposed requirement that would adopt as a regulatory standard "authorizing each electric utility of the State to

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[84] DRA Comments on Joint Ruling at 4-5.

[85] *Id*. at 5.

[86] CFC Comments on Joint Ruling at 8.

[87] CARE Comments on Joint Ruling at 3.

[88] CLECA Comments on Joint Ruling at 5.

[89] CEERT Comments on Joint Ruling at 6.

recover from ratepayers any capital, operating expenditure, or other costs of the electric utility relating to the deployment of a qualified smart grid system …"[90] We therefore see no need for the Commission to adopt this provision for Smart Grid investments because this reasonable ratemaking treatment already applies to all utility investments, including those related to the Smart Grid.

Additionally, since this standard is already the current practice, adoption of a new federal standard may create confusion. In particular, creating a special rate treatment for Smart Grid investments would likely prove counterproductive and lead to regulatory delays in determining whether a particular investment qualified for special treatment.

Moreover, providing special treatment does not appear to comport with the stated purposes of PURPA, which include ensuring the efficient use of resources and equitable rates for consumers. Special rate treatment for Smart Grid investments is likely to distort the use of resources and lead to higher rates for electric customers than needed to finance network upgrades. Thus, adopting this standard in the California setting would be inconsistent with the purposes of PURPA.

Similarly, we see no reason at this time for granting the developers of the Smart Grid an increase in return beyond that offered for other investments. Current California law and practice requires that utilities have an opportunity to earn a fair return on the funds that they invest. Granting premiums above market may, absent a compelling reason, distort investment choices and lead to inefficient results. Thus, providing an earnings premium for Smart Grid

[90] 16 U.S.C. § 2621(d)(18)(B). We note that our discussion assumes that only a "reasonable" Smart Grid system would be "qualified."

investments at this time would be inconsistent with the statutory purposes of using resources efficiently.

For the reasons contained in the discussion above, we do not adopt a federal standard that would authorize each electric utility of the State to recover from ratepayers any capital, operating expenditure, or other costs of the electric utility relating to the deployment of a qualified Smart Grid system, including a reasonable rate of return on the capital expenditures of the electric utility for the deployment of the qualified Smart Grid. We note that the standard proposed in EISA is essentially the one currently in place for all utility investments in California. We reject special treatment for Smart Grid infrastructure projects as both unnecessary, and ultimately inconsistent with the purposes of PURPA.

4.3. Should the Commission Authorize any Electric Utility that Deploys a Smart Grid to Recover in a Timely Manner the Remaining Book-Value Costs of Any Equipment Rendered Obsolete by the Deployment of the Qualified Smart Grid System, Based on the Remaining Depreciable Life of the Obsolete Equipment?

As the legal analysis above demonstrates, PURPA, as amended by EISA, requires that for each electric utility subject to the Commission's ratemaking authority, the Commission must make findings as to whether to permit timely recovery of the remaining book-value costs of any equipment rendered obsolete by the deployment of the qualified Smart Grid system, based on the remaining depreciable life of the obsolete equipment. In this section, we consider whether to adopt this requirement as a new state regulatory standard.

4.3.1. Comments on the OIR

Although this issue was posed in the OIR, only two parties filed comments in response.

SCE believes that further analysis is required to better understand the potential impacts of replacing an increasing amount of grid assets (which may have asset lives of several decades) with technologies that have asset lives of perhaps a single decade.[91]

SDG&E argues that the Commission should let obsolete equipment remain on utility books because "these assets were placed in service under a specific recovery time as deemed appropriate by the Commission at the time."[92]

4.3.2. Comments on the Joint Ruling

In its comments on the Joint Ruling, SCE states that it agrees with the Joint Ruling's tentative conclusion that "an insufficient record exists in this proceeding to support detailed policies pertaining to the regulatory treatment of infrastructure rendered obsolete by Smart Grid investments."[93] SCE asks for that recovery to be "carefully considered" in other proceedings, such as a general rate case.[94]

PG&E, in contrast, argues that:

> Historically, the Commission has applied its overall "just and reasonable" criteria to ratemaking recovery of reasonable investments in utility plant and equipment that is abandoned or rendered obsolete, and the Commission can reaffirm the applicability of that policy to Smart Grid investments generally. One of the key barriers to robust consideration and implementation of cost-effective Smart Grid investments is lack of clear assurance that

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[91] SCE Comments at 16.

[92] *Id.*

[93] SCE Comments on Joint Ruling at 5.

[94] *Id.*

> the "sunk costs" of obsolete equipment with long ratemaking lives is recoverable.[95]
>
> DRA argues that:
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> In general, DRA is not opposed to utility recovery of the remaining book value of the assets if they are rendered obsolete by a mandated regulatory change imposed by the Commission. However, should the Commission decide that further reviews of the assets are necessary before ruling on their recoverability, this review should, to the extent possible, be provided as part of the record of the Smart Grid proceeding and not be deferred to the utility's current or next GRC.[96]

In addition, DRA asks that the Commission require the utilities to provide in the Smart Grid proceeding "their initial accounting records, including account numbers, amounts and book values of the obsolete assets."[97]

> TURN argues:
>
> … that this federal standard concerning the rate recovery of costs that are "stranded" by Smart Grid investments should not be adopted as general policy. Any requests for rate recovery of obsolete equipment related to "Qualified Smart Grid System" investments should be treated as any other such request and considered in the context of general rate cases or specific applications that relate to Smart Grid investments.[98]

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[95] PG&E Comments on Joint Ruling at 3.

[96] DRA Comments on Joint Ruling at 5.

[97] *Id*.

[98] TURN Comments on Joint Ruling at 7.

TURN cautions that "[i]t would be inappropriate to adopt a vague and blanket standard for recovery of 'obsolete' equipment whenever the utility claims replacement by a 'smart grid' investment."[99]

CFC argues that with the planning process envisioned by SB 17, "stranded costs can be minimized."[100] CFC also states that it:

> … agrees with the Assigned Commissioner that specific rate treatment for obsolete equipment should be considered in a general rate case, but disagrees with the prospect of cost recovery being sought in a separate proceeding where other uses of smart grid technologies will not be considered.[101]

CEERT states that it "does not believe that all Smart Grid investments will necessarily strand previous investments."[102] CEERT does not state a preference as to where the Commission considers stranded investment, but states that it "does not oppose recovery of stranded investments in a timely manner, but with due consideration of rate impacts."[103]

CLECA states that concerning the issue of stranded investment, "[t]he Commission is fully capable of addressing this matter in its normal ratemaking proceedings under its current practices and policies."[104]

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[99] *Id*.

[100] CFC Comments on Joint Ruling at 11.

[101] *Id*. at 12.

[102] CEERT Comments on Joint Ruling at 7.

[103] *Id*.

[104] CLECA Comments on Joint Ruling at 5-6.

4.3.3. Discussion

Based on the record in this proceeding, we conclude that it is more consistent with the purposes of PURPA to defer consideration of specific rate treatment for obsolete equipment to general rate cases or applications that address Smart Grid investments. At that time, the Commission can address the ratemaking treatment of any equipment that is made obsolete.

As PG&E points out, the Commission has historically adopted policies that permit the recovery of the costs associated with stranded assets. There is no reason to doubt that such historical policies would fail to guide a consideration of costs stranded by Smart Grid investments. There is no need, therefore, to adopt this EISA standard. Moreover, creating a special policy for these investments when none is needed may cause confusion.

5. Customer Access to Energy Information

5.1. Should the Commission Require Utilities to Provide Customers with Access to the Information Referenced in 16 U.S.C. § 1621(d)(19)(B) of PURPA in Written and Electronic Form?

As the legal analysis above makes clear, PURPA, as amended by EISA, requires that, for each electric utility subject to the Commission's ratemaking authority, the Commission must make findings as to whether to require the utility to provide access to information pertaining to a customer's electricity usage. The statute proposes that the information to be provided by the utility must include prices, both wholesale time-based electricity prices and time-based retail electricity prices, and usage. Furthermore, PURPA proposes that such

information must be updated "on not less than a daily basis,"[105] including hourly prices and use information, and must include a day-ahead projection of prices.

Additionally, PURPA proposes that the utility would provide information concerning the sources of power by generation type, "including greenhouse gas emissions associated with each type of generation, for intervals during which such information is available."[106]

Finally, we note that PURPA, as amended by EISA, makes unnecessary further consideration of information disclosure where there has been "prior state action."

5.1.1. Comments on the OIR

SCE supports providing electricity information to customers, but believes that the information should not be limited to the information that is listed in the statute. SCE notes that it is working to provide additional information to customers beyond what is listed in EISA § 1307(a), such as peak versus off-peak usage summaries, and information showing a customer's electricity usage in relation to a tiered rate structure. SCE also specifies how it is or is not meeting the standards of EISA § 1307(a). Notably, SCE believes that it is already compliant with or will be compliant with most of the standards in the near future, excluding providing time-based wholesale market prices, regarding which SCE replies that it "currently does not provide time-based wholesale prices to its customers."[107]

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[105] 16 U.S.C. § 1621(d)(19)(B)(iii).

[106] 16 U.S.C. § 1621(d)(19)(B)(iv).

[107] SCE Comments at 23.

SDG&E states that it is already in compliance with the standards outlined in EISA § 1307(a).[108]

PG&E submits that any proposed information standards should be "evaluated as part of the Commission's broader initiatives" regarding demand response and dynamic pricing and not implemented in this rulemaking.[109] PG&E also notes that it believes that it is already in compliance with this standard as part of prior Commission action.[110]

DRA suggests that previous Commission actions[111] have already satisfied the requirements of this standard. Nevertheless, DRA argues that the Commission should affirm and adopt the standards as consistent with existing Commission policy to show compliance with the statute.[112]

TURN states that the Commission should not adopt the standard as it relates to providing hourly wholesale spot market prices, but does not oppose adopting the standard regarding the sources of generation supplied to the customer. TURN argues that California's IOUs are already required to submit similar information to their customers via a bill insert, and, as such, requiring the

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[108] SDG&E Comments at 7. In a response to Question 7, SDG&E inadvertently refers to the wrong PURPA standard in its response. As such, it does not answer the question regarding whether or not the Commission should implement this particular Smart Grid standard.

[109] PG&E Comments at 11.

[110] *Id.* at 12.

[111] Advanced Metering Infrastructure Minimum Functionality Criteria, ACR, R.02-06-001 (February 19, 2004).

[112] DRA Comments at 6.

IOUs to include data regarding greenhouse gas (GHG) emissions associated with each type of generation in a bill insert "would not be overly burdensome."[113]

CFC supports adopting the standard, but cautions "only if access to the information is secure."[114] CFC states that additional work is needed before implementing this standard in order to create a verification system to ensure security. CFC also supports providing prices and GHG emission information as it is useful to customers to make more efficient use of their consumption and to reduce GHG, but is unsure if the IOUs have the needed technology to provide customers with this information.

PacifiCorp supports adoption of the standard, with one change (see next section). PacifiCorp notes that it has not installed advanced meters, so it is currently not in compliance with this standard.[115]

CLECA notes that the type of information listed in this standard is not readily available to California consumers and "should be the goal of AMI and other system improvements."[116] CPower echoes CLECA's position.[117] Enspiria notes that information "contributes to … the energy value chain."[118]

CEERT notes that a "not less than daily basis" may not be granular enough to allow for a real-time integration of customer resources into the market, and

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[113] TURN Comments at 10.

[114] CFC Comments at 26.

[115] PacifiCorp Comments at 4.

[116] CLECA Comments at 9.

[117] CPower Comments at 4.

[118] Enspiria Comments at 9.

suggests that the Commission modify the EISA language to allow for more frequent and more timely updates on pricing and usage.[119]

5.1.2. Comments on the Joint Ruling

The proposed EISA requirements would require the utilities to provide customers access in electronic and written form to time-based electricity prices in wholesale and retail markets, to usage information, to daily updates on hourly price and use information and to information on the sources and characteristics of the energy supply. The Joint Ruling tentatively concluded that the Commission should decline to adopt the proposed requirement for California utilities. For the small utilities of Sierra Pacific, Mountain Utilities, PacifiCorp and Bear Valley Electric, the Joint Ruling tentatively concluded that the small size of these utilities and the nature of their operations make it inappropriate to impose such a requirement. For SCE, PG&E and SDG&E, the Joint Ruling tentatively concluded that the Commission should find that prior Commission actions on implementing information disclosure policies in the context of the utilities' advanced metering initiatives constitute a "prior state action" pursuant to 16 U.S.C. § 1621(d), and make further action unnecessary to fulfill EISA requirements.

In addition, the Joint Ruling proposed to require that the three large IOUs provide retail prices on a real-time basis in a machine-readable form. The Joint Ruling proposed that this requirement go into effect at the completion of each utility's respective AMI deployment or the implementation of real-time pricing

[119] CEERT Reply Comments at 12.

rates, whichever comes first. A utility would need to seek recovery of the costs to meet this requirement, if any, in a general rate case or relevant application.

These proposals triggered extensive comments.

SCE stated that it "agrees with the Ruling's view that the EISA amendments to PURPA do not need to be adopted in California as additional requirements, because California already has perhaps the most robust set of customer information mandates in the country."[120] Concerning the proposed real-time access to price information, SCE argues:

> A standard that sets requirements in excess of the existing minimum AMI criteria requires further examination related to cost-effectiveness. While in concept this requirement seems simple, in reality this is a rather complex issue.[121]

To deal with the complexities of this issue, SCE "suggests that the Commission adopt a policy of requiring that IOUs comply with Smart Grid standards that are recommended by NIST as part of its Roadmap effort."[122]

SDG&E takes a similar approach, agreeing that "prior Commission actions on implementing policies related to a customer's access to information have been satisfied by the minimum functionality requirements established in each utility's Advanced Metering Initiative proceedings."[123]

Concerning the proposed requirement that would go into effect upon completion of the AMI deployment, SDG&E argues that the "proposed policy

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[120] SCE Comments on Joint Ruling at 6.

[121] *Id*. at 7.

[122] *Id*. at 8.

[123] SDG&E Comments on Joint Ruling at 2.

requirement needs to be clarified."[124] Specifically, SDG&E sees the requirement for "real-time pricing rates" as potentially in conflict with the timing provisions of SB 695. SDG&E recommends that the "Ruling be modified to defer the adoption of the proposed requirement" and that the Commission "identifies rate design and tariff proceedings as the appropriate forum to address when the utilities are to provide real-time pricing rates in machine readable form."[125]

PG&E similarly supports the finding that prior Commission action fulfills EISA requirements and that "new or additional customer information requirements are unnecessary."[126] However, PG&E does "not believe that the Smart Grid OIR is the fair or efficient forum for adoption of the new tariff policies for real-time pricing."[127] PG&E argues that acting in this proceeding "would needless confuse and duplicate the consideration" undertaken in other proceedings.[128]

DRA argues:

> Given substantial prior Commission actions and absent significant changes in California's general energy policies, the Commission should simply find that prior Commission actions constitute a "prior state action" pursuant to 16 U.S.C. § 1621(d), find that imposition of new requirements is not required by PURPA, and refrain from creating redundant alternative standards.[129]

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[124] *Id*. at 3.

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

[126] PG&E Comments on Joint Ruling at 4-5.

[127] *Id*. at 5.

[128] *Id*.

[129] DRA Comments on Joint Ruling at 11.

DRA specifically takes issue with the proposal to require the provision of real-time or near real-time information on prices. DRA states that "[t]his issue has already been decided, and the alternative standard is unnecessary because the Commission's advanced metering initiative since 2002 has been premised upon providing customers with timely access to retail pricing and usage information."[130] DRA argues further "[t]he Commission has already authorized AMI meter technology that enables customers to obtain real-time basis in a machine readable form."[131]

In response, however, SCE points out that the AMI decisions do not require "the real-time presentment of retail prices to customers."[132] SCE clarifies that "AMI functionality criteria required the IOUs to provide customers with access to interval usage data," not pricing information.[133]

TURN states that it "supports the notion that utilities should make individual customer usage information available to the individual customer."[134] On the other hand, TURN:

> … objects to the notion that resident customers must be informed about wholesale and retail time-based prices for the essential electricity service ... the notion that each utility must be prepared and provide daily information and hourly usage and pricing

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130 *Id*. at 9.

131 *Id*. at 10.

132 SCE Reply Comments on Joint Ruling at 8.

133 *Id*.

134 TURN Comments on Joint Motion at 8.

information relating to wholesale and retail prices would be burdensome and costly.[135]

TURN further objects to a requirement of providing access to information on real-time and in a machine readable form, arguing "[i]t is not clear what the cost and expense implications of such a requirement would impose on ratepayers."[136] Instead, TURN proposes that the "Commission require utilities to submit their intended plans for communicating time-based price information to those customer who have selected time-based pricing options and indicate the costs associated with their proposed manner of communications so that the public can review and comment on these proposals."[137] TURN summarizes its views as "[t]here is no need for further requirements in this area."[138]

CEERT states that the Commission's current information standard, which it characterizes as "hourly interval data with a one-day lag" is "inadequate for customers who intend to take a more active role in their energy management either directly or through third party energy managers."[139] CEERT argues that unless the Commission provides access to data on a more timely basis, "the result will be underutilization of the newly deployed metering technologies and failure to realize the full potential of the smart grid."[140]

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135 *Id*.

136 *Id*. at 9.

137 *Id*. at 10.

138 *Id*.

139 CEERT Comments on Joint Ruling at 8.

140 *Id*. at 9.

CLECA states that:

> … customers should receive continuously-updated information on their usage with the additional detail being considered by Southern California Edison, i.e. usage by time-of-use period and information on movement into a higher tier for customers with tiered rates. For rate schedules with hourly prices, such as possible real time pricing tariffs, customers should have access to hourly prices on which they will be charged, whether these are day-ahead or real-time prices.[141]

CLECA, however, states that it "is less concerned about approval of the EISA requirement."[142] It states that "[u]nless future retail rates are based on wholesale prices, we do not see a reason to provide customers with wholesale price information."[143]

Google cites a Commission filing to the Federal Communications Commission that notes that "the utilities have not yet activated the HAN signal on these meters as some of the key standards and security protocols … are yet to be completed."[144] Google argues that "consumers should not wait an indeterminate amount of time before they start seeing the benefits of their investments in the smart grid."[145] Google recommends "that the Commission set

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[141] CLECA Comments on Joint Ruling at 6.

[142] *Id*.

[143] *Id*. at 7.

[144] Google Comments on Joint Ruling at 2, citing Comments of the California Public Utilities Commission and the People of the State of California to NBP Public Notice #2, Federal Communications Commission GN Docket Nos. 09-47, 09-51, 09-137 (October 2, 2009).

[145] *Id*. at 3.

a deadline – the end of 2010 at the latest – to ensure that consumers will be able to access their meter data directly …"[146]

Tendril[147] argues that "providing information tools to the consumer is consistent with national policy."[148] Tendril supports the Commission's efforts to adopt new standards regarding information and states that "policies adopted at the federal level support the provision of consumers with real-time information that enables the implementation of automated energy management strategies and real-time transactions based on rates and other criteria."[149]

5.1.3. Discussion

The Commission declines to adopt the proposed EISA requirement that a utility provide certain information to customers regarding prices, usage, intervals and projections and sources.

For Sierra Pacific, Mountain Utilities, PacifiCorp and Bear Valley Electric, the small size of these utilities and the nature of their operations make it inappropriate and unreasonable to impose such a requirement. None of these companies have installed advanced meters in California, and the additional cost of installing new advanced meters to meet this standard could be overly burdensome on their small ratepayer base. Thus, imposing this requirement on these companies is inconsistent with the purposes of the act, which seek to

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146 *Id*.

147 We note that Tendril filed a *Motion for Party Status* on November 4, 2009. Tendril is a developer of energy management systems with an interest in the results of this proceeding. We grant Tendril party status.

148 Tendril Comments on Joint Ruling at 3.

149 *Id*. at 4.

promote an efficient electric distribution system and equitable pricing of power. It is clear that for these companies, the requirements would produce costly and burdensome requirements.

For SCE, PG&E and SDG&E, we find that prior Commission actions on implementing information disclosure policies in the context of the utilities' advanced metering initiatives constitute a "prior state action" pursuant to 16 U.S.C. § 1621(d), and make further action unnecessary to fulfill EISA requirements.

The Commission has already adopted certain functional standards in its AMI proceedings that set requirements for the provision of information to customers.[150] Our understanding is that once a customer of PG&E, SDG&E or SCE has received an advanced meter, the customer will have access to his or her energy usage information via the internet with a one day lag. The energy usage information will be broken down into one hour intervals for residential customers and into fifteen minute intervals for commercial and industrial customers. The utilities also generally provide retail price information via their websites, but currently there is no requirement to do that, nor is there a requirement to provide price information on the cost of electricity in wholesale markets.

The advanced metering projects approved by the Commission also include Home Area Network (HAN) devices that link to the new meters. A HAN device

[150] Specifically, the Commission found in D.07-07-042 that SCE's AMI application satisfactorily met the six functions. In D.06-07-027, the Commission found that PG&E's AMI application satisfactorily met the six functions. In D.07-04-043, the Commission found that SDG&E's AMI application satisfactorily met the six functions. *See also*, D.08-09-039, Finding of Fact 20 (September 18, 2008).

can enable price signals, load control and near real time data for electric customers.[151] As SCE made clear, at this time there are no requirements or plans to provide any pricing data over the HAN.

Although our "prior state action" is sufficient to meet the EISA standards, we believe it is appropriate to reaffirm our expectations that PG&E, SDG&E and SCE provide their customers and other interested persons with real-time or near real-time retail and wholesale price information and provide their customers with usage information. Providing prices to customers conveys the information necessary for the customers to make more efficient use of their electricity consumption, and, potentially, to reduce their electricity costs. Specifically, as several parties have pointed out, access to information on wholesale prices and costs can prove critical for empowering customers to provide Demand Response services.

Also, ensuring that price and consumption information are easily accessible to customers will be important to support the Commission's dynamic pricing policies. Customers will need to understand what price they are paying for electricity so that they can choose how much energy to consume. As the participation of Google and Tendril in this proceeding makes clear, customers will likely have opportunities to invest in enabling devices that "listen" to prices and automatically increase or decrease their consumption of energy based on instructions that have been pre-programmed by the customer. These automatic agents will help customers to manage their energy consumption.

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[151] D.09-03-026, Finding of Fact 6 (March 13, 2009).

Currently, retail prices are available to customers in the form of the utilities' published tariffs and are typically printed on customers' monthly bills. However, it is unclear at this time when or how PG&E, SCE and SDG&E anticipate providing retail price information to customers on a real-time basis and in a machine-readable form, e.g., sending a signal or internet message that communicates what the time-of-use price is at the time the price is in effect or what is the "tier rate" in effect during a period of consumption.[152]

To overcome this current limitation and lay a foundation for future pricing policies that are sensitive to the cost of electricity at a particular time, there is more work that we should do in this proceeding. In the next part of this proceeding, we will consider how to require that the three large IOUs provide retail prices and wholesale costs on a real-time or near real-time basis in a machine-readable form consistent with any Smart Grid EISA standards recommended by the National Institute of Standards and Technology (NIST).

Through additional workshops and/or comments, the Commission will develop a record that determines the best way to require utilities to provide retail and wholesale prices to customers (and to authorized third parties) on a real-time or near real-time basis in a machine readable form.

At this point, we believe that this requirement should apply no matter what type of rate a customer is on. For example, a customer on a time-of-use rate should have access to the retail price that a customer is paying at the time the customer seeks access to the data. Similarly, a residential customer on the basic

[152] We note that providing customers access to the rate in effect at a given time, despite SDG&E's stated concerns, is not inconsistent with any timing requirements adopted by statutes. Indeed, rates currently vary considerably depending on the level of consumption during the month and other factors.

inverted tier rate plan should have access to his/her tiered energy rate, along with a forecast or projection of what tier he or she is in. We note that the current "basic plan" is far from basic – it consists of a number of tiers, surcharges, and discounts that apply under complex circumstances. Therefore, providing retail prices is intertwined with provision of cumulative energy usage during a billing period.

To guide the workshops and comments that follow, the Commission hereby sets the following requirements to be met through the workshops/comments in the next part of this proceeding:

Policy Objective 1: Identify low cost or no cost methods to meet the requirement of providing retail and wholesale prices to customers (and to authorized third parties) on a real-time or near real-time basis in a uniform manner to customers and authorized third parties in a machine readable form.

Policy Objective 2: Implement the regulatory requirement of Policy Objective 1 by the end of 2010, and if possible sooner – particularly if there are standards recommended for adoption by NIST – for all customers that have smart meters.[153]

Policy Objective 3: Estimate the costs, if any, of providing access to the information identified in Policy Objective 1 and designate a method through which the utility can recover the costs, if any, of providing customers and authorized third parties with access to price information.

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[153] NIST has identified developing a common specification for energy prices as one of its Priority Action Plans. See *NIST Framework and Roadmap for Smart Grid Interoperability Standards Release 1.0 (Draft)*, September 2009, pp. 49-51.

Policy Objective 4: Ensure all information is secure and that a customer's privacy is protected.

With the availability of new meters and internet communications, the three large IOUs should provide retail and wholesale price and generation source information in a uniform manner consistent with widely accepted national standards or formats where available. The EISA amendments to PURPA make it clear that this is the direction of national policy, and California ratepayers should be empowered with the same information available in other states.

To empower consumers to make more informed choices on electricity consumption and to enable them to use automatic energy management systems, consistency in the provision of this price data is critical. As a result, we will be looking for a uniform approach in the workshops and comments on this proposed policy. The comments of Google and Tendril indicate that the availability of information on usage and prices in a consistent format can lead to energy management solutions that at this time we can only begin to imagine. In addition, Google's comments make clear that it is inappropriate to wait indefinitely for the development of standards. Although we hope that standards that NIST will recommend will be soon available, we plan to act by the end of 2010 even if NIST standards are not available.

Finally, we agree with DRA[154] in that we expect that new technologies, products and third party entrants may provide additional information beyond the information contemplated in the EISA standard or our proposed requirements. Our intention today is not to limit the type of information that

[154] DRA Reply Comments at 11.

may be provided to customers in the future, nor are we limiting who may provide this data to customers.

5.2. Should the Commission Require Utilities to Provide Purchasers of Electricity With Access to Their Own Information at Any Time Through the Internet and on Other Means of Communications Elected by the Utility? Should the Commission Require Utilities to Provide Other Interested Persons Access to Information not Specific to Any Purchaser Through the Internet?

As detailed in the legal discussion above, EISA requires that the Commission must make findings for each utility that it regulates as to whether or not to require the utility to facilitate the ability of its customers to have access to their usage information at any time through the Internet, or through any other means selected by the utility for Smart Grid applications. Additionally, PURPA, as amended by EISA, asks the Commission to determine whether to require rules that would allow "other interested persons" to access information "not specific to any" customer through the Internet, provided that any information specific to any customer only be provided to that customer.

5.2.1. Comments on the OIR

SCE notes that it already provides customers an opportunity to access their own information at any time via the internet, via Internet Voice Response or via their smart meter-enabled home area network interface. Additionally, SCE states that it also provides non-customer specific data to other entities and would like to work on developing an industry standard for exchanging data with "interested

persons" other than the customer. It pledges to not provide customer-specific data to any third party without the permission of the customer.[155]

PG&E and SDG&E both state that they are already in compliance with this standard. On the other hand, CLECA[156] and CPower[157] both state that information and access to this information is not available today.

PacifiCorp supports adoption of this standard with one revision. PacifiCorp requests that if the Commission adopts this standard then the Commission should change the "and" in the first sentence to an "or."[158] Thus, under its proposal, an IOU would need to provide access to information *either* through the internet *or* via some other means.

TURN cautions that this standard warrants further consideration due to the privacy implications of sharing customer data with a third party.[159]

5.2.2. Comments on the Joint Ruling

SCE states that "existing state mandates meet or exceed the EISA requirements."[160] SCE further states that:

> SCE and the other California IOUs already provide all customers with access to their own usage information through the internet or other means. Moreover, in approving each IOU's AMI application, the Commission already required the IOUs to provide near real-time

[155] SCE Comments at 25-26.

[156] CLECA Comments at 9.

[157] CPower Comments at 4.

[158] PacifiCorp Comments at 4.

[159] TURN Comments at 11.

[160] SCE Comments on Joint Ruling at 9.

> usage data…. In SCE's case, the SCE/DRA Settlement Agreement on the Edison Smart Connect™ Phase III Application, adopted in Decision (D.) 08-09-039 requires that SCE provide customers with access to usage data provided through the AMI system.[161]

SCE further states that it already provides large commercial and industrial customers with access to usage data on 15 minute intervals and that its HAN "will provide customers with near real-time access to their usage data … in 2012."[162] Concerning third-party access, SCE states that "[o]nce the NIST automated data exchange standards are developed and approved, the Commission should adopt these standards as part of this proceeding."[163]

SDG&E cautions that "[i]f the Commission should specify recommendations on how to facilitate real-time access to energy usage information, the recommendations should clearly define the rights, responsibilities, and obligations of all parties involved in this data exchange: the utilities, the customers, and any third-parties."[164] SDG&E advises caution.

PG&E states that it "agrees that the Commission's information disclosure requirements to date, particularly in the utilities' AMI proceedings, are sufficient to avoid the need for new policies or requirements on access to customer usage information."[165] Concerning customer access to their usage data, PG&E states that "PG&E and the other utilities will remain obligated to provide every

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[161] *Id*.

[162] *Id*. at 9-10.

[163] *Id*. at 10.

[164] SDG&E Comments on Joint Ruling at 4.

[165] PG&E Comments on Joint Ruling at 6.

customer with access to their usage information, and to ensure that such customers fully and knowledgably consent to the disclosure of such information to third-parties …"[166] Concerning the issue of procedures and protocols for access by third parties to customer data, "PG&E strongly recommends that the Commission open a separate phase of this Smart Grid OIR proceeding to request comments and recommendations from all interested parties."[167]

DRA supports the Joint Ruling's finding that "prior Commission action" makes further action not necessary at this time.[168] DRA urges that the Commission "consider how to accommodate a third party's continual access to customers' metering information and to ensure that the utilities do not erect anticompetitive financial barriers against third parties seeking to obtain that access on behalf of the utilities' customers.'[169] DRA also recommends that the Commission "adopt rules which protect consumer information disseminated to a third-party provider …"[170] DRA notes that under current rules "[a]ccess to information, whether by the utility customer or to a third party, is limited to the most recent twelve months of customer usage data, for up to two times per year per service account at no cost to the requesting party, after which the utility than has the ability to assess a processing charge …"[171]

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166 *Id*.

167 *Id*.

168 DRA Comments on Joint Ruling at 11-12.

169 *Id*. at 14.

170 *Id*. at 15.

171 *Id*. at 13.

TURN and CFC, filing jointly, recommend:

> … three critical principles: 1) customers own their usage information and should be empowered to use it, and 2) any deliberate disclosure by the customer to a third party should be accompanied by strong consumer protection requirements for adequate notice and disclosure, and written consent, and 3) regulatory policies should ensure maximum protection against inadvertent disclosure of private information by the utilities and as a condition to allowing third parties to have access to the information.[172]

TURN and CFC recommend that the Commission "initiate a new phase in this rulemaking (or open a new proceeding) that will specifically consider issues related to customer and third part access to customer-specific usage information in a post-AMI world."[173]

CARE states that it supports adoption of the EISA standard.[174]

CEERT supports "instantaneous access to usage data at the meter"[175] for both customers and their agents. CEERT notes that under current consumer protection rules, "the customer must provide a written release to the utility" and suggests that the Commission "consider electronic signatures."[176]

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[172] TURN and CFC *Comments Pertaining to the EISA Standard Regarding Customer and Third Party Access to Private Usage Information* at 3.

[173] *Id*. at 5.

[174] CARE Comments on Joint Ruling at 5.

[175] CEERT Comments on Joint Ruling at 10.

[176] *Id*. at 11.

NAPP[177] calls for third party access to "the pulse information from the utility Smart Metering devices directly in real time (or near real time) and not just the hourly updates that are currently under consideration."[178] In addition, NAPP criticizes the current authorization forms as "complex" with "legal language that may intimidate and dissuade the customer from participating."[179] NAPP also suggests that the Commission "consider electronic signatures."[180] Moreover, NAPP also notes that under current rules, access to information is limited to three years from the date of execution.[181]

On the issue of electronic signatures, SCE responds that "California law allows for the use of electronic signatures."[182]

CLECA concurs "that the Commission need not adopt the EISA requirement" but that "all customers should have access to their own usage information by time period …"[183] CLECA, however, states that it does "not have sufficient time in our response to this Ruling to recommend rules …"[184]

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[177] NAPP filed a *Motion to Become a Party* to this proceeding on November 2, citing a "direct interest" because it is a demand response aggregator. We grant this motion.

[178] NAPP Reply Comments on Joint Ruling at 5.

[179] *Id*. at 3.

[180] *Id*. at 4.

[181] *Id*. at 3.

[182] SCE Reply Comments on Joint Ruling at 12.

[183] CLECA Comments on Joint Ruling at 7.

[184] *Id*. at 8.

Google recommends that the Commission "maximize the opportunities for third party participation" in order to "drive innovation and customer choice."[185] Google describes the actions of the State of Texas, stating that Texas "employed a facilitated, stakeholder process to address issues around development of a centralized web portal, third party access to data, and privacy and security."[186]

Tendril also cites the actions of the State of Texas to develop meters that can communicate with devices on the premises and the actions of the Pennsylvania Public Utilities Commission, which directed electric distribution companies to provide "[n]on-discriminatory access for retail electric suppliers and third parties" to smart meters.[187]

Wal-Mart states that "customers should have access to their own information, without cost, through the Internet" but "other parties should not be able to access another customer's information unless the utility is give permission by that customer to release the information."[188]

5.2.3. Discussion

We decline to adopt the EISA standard that requires an IOU to provide customers with access to usage information and to provide other interested persons with access to certain information not specific to any one customer via the internet. For PacifiCorp, Sierra Pacific, Mountain Utilities, and Bear Valley, we find that their operations and customer base are too small to support the

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[185] Google Comments on Joint Ruling at 6.

[186] *Id*.

[187] Tendril Comments on Joint Ruling at 5-6.

[188] Wal-Mart Comments on Joint Ruling at 4.

significant infrastructure investments that would be needed to support the implementation of this standard, and these utilities have not installed advanced meters for their customers. Thus, we conclude that adopting such a standard would be inconsistent with the purposes of PURPA, which seeks to promote efficiency while assuring the equitability of rates to consumers.

For SCE, SDG&E and PG&E, as discussed above, we find that prior Commission actions implementing information disclosure policies in AMI, pursuant to 16 U.S.C. § 1621(d), constitute a "prior state action" and therefore make further action unnecessary to fulfill PURPA requirements. AMI disclosure requirements, with the notable exception of the lack of requirements concerning electricity prices, are generally consistent with the information disclosure requirements proposed in 16 U.S.C. § 2621(d)(19).

The Commission, however, is interested in determining which further disclosure requirements will further California's policy objectives for the Smart Grid in particular, and for broader energy policies. Even though we decline to adopt this EISA standard, we share the opinion that customer access to usage information is a goal of this Commission, and should be a goal of IOUs in implementing a Smart Grid. Indeed, SDG&E and Google have already entered into a partnership to provide customers with just this type of access to their consumption data.

There are significant concerns, however, that the Commission must address as it relates to access, particularly by third parties, such as confidentiality, the security of the customer's information, and processes to allow for third parties to obtain access to the data with a customer's permission. We therefore plan to hold additional workshops and to take additional comments so that the Commission can develop rules and policies concerning how a utility

should provide a customer and third parties designated by a customer with secure access to the customer's energy usage information, both on a day after basis and on a near real-time basis. The new rules will address privacy and consumer protection considerations. In particular, the rules will address the frequency with which a customer or customer-designated third party can access the customer's data, as well as the scope and duration of a customer's consent whereby an IOU provides his or her energy usage information to a third party. We will be investigating to what extent it is possible to let the customer determine both the frequency and duration of access. Consistent with evolving state law, we will also investigate what is necessary to implement an electronic signature system.

Furthermore, the Commission will consider and, if appropriate, require that the three major IOUs fully comply with Smart Grid standards recommended by NIST for adoption.[189] Specifically, the Commission will consider whether to require that IOUs comply with NIST standards related to providing customers with access to energy usage information, including any automated data exchange standards.[190]

Given the importance of ensuring customer access to usage information we will set a deadline by which utilities must provide access to authorized third

[189] Although we will address the requirements of SB 17 in a separate ruling, we note SB 17 added § 8362 to the Pub. Util. Code, which asks the Commission "to adopt standards and protocols to ensure functionality and interoperability developed by public and private entities, including, but not limited to, the National Institute of Standards and Technology … "

[190] NIST has identified developing standards for energy usage information as one of its Priority Action Plans. See *NIST Framework and Roadmap for Smart Grid Interoperability Standards Release 1.0 (Draft),* September 2009, pp. 56-57.

parties. We will require that by the end of 2010, the utilities will have put into place operations that allow customers to access their information easily through an agreement with a third party, provided sufficient privacy and security measures are in place to mitigate the potential for fraud and hacking. We intend to develop and adopt necessary rules and policies related to authorized third party access to usage data during the next phase of this proceeding. Thus, the access to usage data must be provided consistent with the rules we adopt to ensure that access is provided consistent with EISA, the general public interest, and state privacy rules.

Additionally, to ensure that real-time or near-real time access to this data and to the benefits offered by AMI are realized, we will explicitly require that each IOU be capable of providing a customer with an AMI meter with access to the customer's usage information on a near real-time basis by the end of 2011 should the customer desire that information. Once again, this access to usage data must be provided consistent with the rules we adopt to ensure that access is provided consistent with EISA, the general public interest, and state privacy rules.

6. Comments on Proposed Decision

The PD of the assigned Commissioner in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on December 7, 2009, by PG&E, SDG&E, Pacificorp, Sierra Pacific, CAISO, DRA, TURN, CARE, CFC, CEERT, Google, and Tendril. Reply comments were filed on December 14, 2009 by SCE and SDG&E.

In general, comments either addressed the substance of the matters addressed in the PD or sought resolution and clarification of procedural issues concerning the next steps in the proceeding.

6.1. Comments Pertaining to the Issues Before the Commission

SDG&E, Pacificorp, Sierra Pacific, and DRA, express broad support for the substance of the PD and its findings.

PG&E asks that "the PD should be interpreted as setting the end of 2010 as a goal for near-real time customer access to price and usage information, not as a mandate."[191]

CAISO argues that the Commission "should consider requiring utilities to also provide wholesale price information as a complement to the retail price information that already will be covered through the AMI proceedings."[192] CAISO asks that the PD "include the issue of wholesale prices in future workshops."[193] CAISO notes that "[r]eal-time wholesale price information already is provided on the ISO's Open Access Same-time Information System (OASIS) website."[194]

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[191] PG&E Comments on PD at 1.

[192] CAISO Comments on PD at 2.

[193] *Id*.

[194] *Id*., footnote omitted.

CEERT, similarly, asks that the PD clarify "an intention to ensure customer (or their authorized third party) access to wholesale market information or the underlying cost associated with retail rates."[195]

TURN expresses general support for the PD, but states that the Commission "provide for some flexibility in the date by which pricing information is made available on a 'real-time basis,' and the Commission should encourage the utilities to use the communications infrastructure to send other useful consumer information."[196] TURN argues for this flexibility because "[s]ome of the information and data regarding the communication of price versus usage data will overlap …"[197] Specifically, TURN argues that "there is evidence showing that consumers will benefit and actively desire information concerning their cumulative monthly usage relative to baseline rates."[198]

CFC supports most of the determinations in the PD, but requests that the Commission adopt a standard requiring a regulatory showing by a utility that demonstrates that it has considered a smart grid system before investing in "nonadvanced grid technologies."[199]

CARE opposes the PD's decision declining to adopt a standard requiring a regulatory showing that a utility demonstrate that it considered a Smart Grid investment before making a grid investment. CARE argues that "the

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[195] CEERT Comments on PD at 3.

[196] TURN Comments on PD at 1.

[197] *Id.* at 2.

[198] *Id*. at 3.

[199] CFC Comments on PD.

Commission failed to demonstrate"[200] that such a requirement is inconsistent with the purposes of the act. CARE also opposes the PD's deferring of action on obsolete equipment to other proceedings. Finally, CARE opposes the PD's policies pertaining to access to information.

Google requests that the Commission clarify its discussion of access to usage and pricing information to avoid "inclusion of the word 'whether,'" because it "casts doubt on the topics to be addressed in the upcoming workshops/comments."[201] Similarly, Google asks for clarifications concerning "the policy objectives identified in the PD"[202] and concerning "access to usage and price information …"[203]

Tendril expresses support for the decision.

6.2. Discussion of Comments Pertaining to Issues before the Commission

Concerning the comments of PG&E, we note that the PD draws a distinction between price information and usage data, and sets a 2010 goal for providing all consumers with access to price data and has ordered the provision of access to real or near-real time usage data by the end of 2011. In addition, this decision mandates access to usage data on a "backhaul" basis by the end of 2010. Access to usage data, however, must comply with the rules developed in this

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[200] CARE Comments on PD at 2.

[201] Google Comments on PD at 3.

[202] *Id*. at 4.

[203] *Id*.

proceeding to ensure that the access is consistent with EISA, the general public interest, and state privacy rules.

Concerning the comments of CAISO and CEERT, we clarify that our workshops will indeed consider providing customers with access to wholesale price data as well as retail data. As CAISO points out, such access is possible to provide and the information on wholesale price will assist those seeking to offer demand-response services to the grid. We have made changes throughout this decision to make it clear that the workshops will seek to provide access to both wholesale and retail price information.

Concerning the comments of TURN, we find that TURN raises important points concerning the difficulty of separating price and usage data, as well as the importance of providing cumulative totals for usage and billing to customers. In response, we wish to make it clear that these are topics that we will consider in the workshops that will follow this proceeding.

Concerning CFC's comments, we note that the comments fail to point out errors of law or fact in the PD. Similarly, CARE's comments fail to point out errors of law or fact.

Concerning Google's requests for clarifications, we have made changes in response to Google's comments.

6.3. Comments Pertaining to Next Steps in Proceeding

In addition to comments on the substance of the proposals contained in the PD, several parties provided comments recommending procedural steps.

Pacificorp, noting that the PD has resolved all EISA issues pertaining to PacifiCorp, asks "to be excused from Phase 2 of this proceeding."[204] PacifiCorp, however, acknowledging the passage of SB 17, states "[i]f PacifiCorp is not excused from this rulemaking at this time, PacifiCorp requests that the Proposed Decision be modified to limit PacificCorp's continued participation in the next phase of R.98-12-009 only to the applicability of SB 17 to PacificCorp , and specifically to the question of whether to excuse PacifiCorp from the SB 17 requirements by way of the § 8368 exemption for small electrical companies."[205]

Similarly, Sierra Pacific asks that it "be dismissed from this proceeding"[206] on grounds similar to those argued by PacifiCorp. Sierra Pacific, however, also acknowledges the passage of SB 17 and its requirements, but argues that "administrative efficiency is best served by determining whether Sierra can be excused from SB 17 requirements at this time."[207] In the alternative, Sierra Pacific asks that the PD "be modified to explicitly state that Sierra's participation in this proceeding be limited to issues involving implementation of SB 17, and that Sierra be excused from issues that broadly pertain to this Commission's proposals to adopt policies to modernize California's transmission and distribution infrastructure."[208]

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[204] Pacificorp Comments on PD at 2.

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

[206] Sierra Pacific Comments on PD at 3.

[207] *Id*. at 4.

[208] *Id* .

TURN suggests "that a more feasible and efficient approach would be either to 1) set a deadline of end-of-2012 for both these objectives [providing price and usage data to all consumers] or, 2) allow the AC or assigned ALJ to modify the suggested deadlines as appropriate."

Tendril and Google ask that the Commission provide more details on the timing of the workshops. Google proposes a schedule for the remainder of this proceeding and urges its adoption.

6.4. Discussion of Comments Pertaining to Next Steps

Concerning the requests of PacifiCorp and Sierra Pacific, we find that it is reasonable to limit participation in the next phase of this proceeding by the utilities PacifiCorp, Sierra Pacific, Mountain Utilities and Bear Valley to issues raised by Senate Bill 17 (Chapter 327, Statutes of 2009) unless a utility, within 30 days of the adoption of this decision, files a motion in this proceeding requesting full participation. In addition, if one of these utilities desires dismissal from the this proceeding, then the utility should file a motion explaining why it is reasonable, pursuant to SB 17, to not apply the requirements to these companies in light of their individual circumstances. The assigned Commissioner or the assigned ALJ should be authorized to grant a motion for dismissal via a ruling.

Concerning TURN's suggestion regarding creating flexible deadlines, we clarify that the provision of access to usage data will not take place unless the Commission has rules in place consistent with EISA, the public interest, and state privacy laws to protect consumers.

The request of Google and Tendril for more details concerning the workshops and timetable is beyond the scope of this decision. We expect to issue in January 2010 via ruling a specified schedule to the issues discussed herein regarding consented third-party access to customer data. In addition, SB 17

provides a structure of deadlines affecting this proceeding, and this should provide parties with the guidance that they request.

6.5. Review of Comments and Replies

We have reviewed all the comments and replies. In addition to addressing many of the issues raised by parties directly, we have revised the decision in many places based on the comments and replies as we deemed reasonable.

7. Assignment of Proceeding

Rachelle B. Chong is the assigned Commissioner and Timothy J. Sullivan is the assigned ALJ in this proceeding.

Findings of Fact

1. Parties filed comments in this rulemaking on February 9, 2009 and reply comments on March 9, 2009.

2. Workshops in this proceeding took place on May 27, June 5, June 28, July 15 and July 21, 2009 to address issues identified in this proceeding.

3. On September 28, 2009, a joint ruling of the assigned Commissioner and the ALJ sought comments and replies on tentative policies and findings pertaining to EISA.

4. Parties filed comments on October 26 and reply comments on November 2, 2009 on the policies and findings pertaining to EISA contained in the September 28, 2008 joint ruling.

5. Sierra Pacific, Mountain Utilities, and PacifiCorp do not operate in the CAISO's control area.

6. Many grid investments, such as a pole replacement or grid extension, are routine matters and tasks that utilities must perform.

7. Requiring a utility to demonstrate that it has considered a "Smart Grid" technology before making an investment in poles, wires, or grid extensions

would delay infrastructure investment, increase costs, and increase the response time for consumer service.

8. Requiring Sierra Pacific, Mountain Utilities, PacifiCorp and Bear Valley Electric to demonstrate that they have considered a Smart Grid investment before investing in any nonadvanced grid technologies would lead to inefficiencies and produce no benefits.

9. Requiring SCE, SDG&E and PG&E to demonstrative that they have considered a Smart Grid investment before investing in any nonadvanced grid technologies would lead to inefficiencies and higher costs.

10. Requiring a utility to demonstrate that it has considered a Smart Grid investment before investing in a nonadvanced grid technology in the case of each and every one of the thousand of grid components the utilities invest in each year would be burdensome and contrary to cost-effective regulatory practices, and would delay needed grid investments.

11. Since current Commission policy offers utilities a reasonable return on investments, adopting a similar standard for Smart Grid investments offers no change in policy and could result in confusion concerning what investments "qualify" as a Smart Grid investment.

12. The record in this proceeding provides no basis for offering an earnings premium for investments in a Smart Grid.

13. The Commission's practice of considering policies pertaining to the recovery of the costs associated with stranded assets at the time that the Commission considers the new investments, such as in a General Rate Case or application, is reasonable and will be workable for Smart Grid investments.

14. At this time, it is not clear that Smart Grid investments will lead to stranded assets.

15. The Commission has not adopted any requirements concerning the communication of prices in either real-time or near real-time.

16. The current block pricing of electricity makes it difficult for a residential customer to know the price that the customer pays at a particular time.

17. Sierra Pacific, Mountain Utilities, PacifiCorp and Bear Valley Electric have not installed advanced meters in California at this time.

18. The small size of Sierra Pacific, Mountain Utilities, PacifiCorp and Bear Valley Electric operations in California would make the cost of installing advanced meters to meet the information disclosure standards proposed by EISA overly burdensome at this time.

19. To realize the benefits of AMI, customers and authorized third parties need access to the information provided by the meters on a real-time or near real-time basis.

20. To realize the benefits of AMI, customers and authorized third parties need access to pricing information on a real-time or near real-time basis.

21. To realize the benefits of AMI for customers who choose not to or are unable to invest in a HAN device, customers and authorized third parties need access data collected by the utilities, including price and usage data, via the Internet.

Conclusions of Law

1. CFC does not identify a factual dispute that would warrant evidentiary hearings

2. EISA requires that this Commission consider three requirements concerning Smart Grid investments and two requirements concerning Smart Grid information for each electric utility subject to Commission regulation.

3. A purpose of PURPA is to produce equitable rates for consumers.

4. A purpose of PURPA is to produce the efficient use of facilities and resources by electric utilities.

5. Since a requirement to demonstrate that a utility has considered a Smart Grid investment before investing in any nonadvanced grid technologies would increase costs without producing benefits, it would lead to higher rates and is therefore inconsistent with producing equitable rates for consumers, which is a purpose of PURPA.

6. Since a requirement to demonstrate that a utility has considered a Smart Grid investment before investing in any nonadvanced grid technologies would impose a regulatory hurdle that would slow infrastructure investment and modernization, it is inconsistent with the efficient use of facilities and resources by electric utilities, which is a purpose of PURPA.

7. Under the provisions of § 8362 of the Pub. Util. Code, the Commission must determine the requirements for a Smart Grid deployment plan and guide utility investments.

8. Adopting policies to guide Smart Grid deployment is reasonable and consistent with the purposes of EISA.

9. There is no significant difference between Commission ratemaking procedures, which offer IOUs a reasonable return on investments, and the requirement proposed in EISA that would adopt as a regulatory standard "authorizing each utility to recover from ratepayers any capital, operating expenditure, or other costs of the electric utility relating to the deployment of a qualified Smart Grid."

10. Since adopting a requirement that authorizes each utility to recover from ratepayers any capital, operating expenditure, or other costs of the electric utility relating to the deployment of a qualified Smart Grid risks regulatory confusion

while yielding no change in policy, it is inconsistent with the efficient use of facilities and resources by electric utilities, which is a purpose of PURPA.

11. Adopting a requirement that authorizes any electric utility that deploys a Smart Grid to recover in a timely manner the remaining book-value costs of any equipment rendered obsolete based on the remaining depreciable life of the obsolete equipment is inconsistent with the purposes of the act because creating a special policy for these investments when none is needed may cause regulatory confusion and delay.

12. Requiring Sierra Pacific, Mountain Utilities, PacifiCorp and Bear Valley Electric to provide customers with access to the information referenced in 16 U.S.C. § 1621(d)(19)(B) in written and electronic form is inconsistent with producing equitable rates for consumers, which is a purpose of PURPA, because the costs would be overly burdensome to these utilities at this time.

13. Requiring SCE, SDG&E and PG&E to provide customers with access to the information referenced in 16 U.S.C. § 1621(d)(19)(B) is not necessary because prior Commission actions on implementing information disclosure policies in the context of the utilities' advanced metering initiatives constitute a "prior state action" pursuant to 16 U.S.C. § 1621(d), and make further action unnecessary to fulfill EISA requirements.

14. It is reasonable to initiate workshops to identify low cost or no cost methods to meet the EISA standard of providing real-time or near real-time information via a HAN and backhaul data via the internet on customer usage and the price/cost of electricity charged to customers, to consider whether to adopt NIST standards for all customers that have meters, and to consider how utilities can recover the costs, if any, of providing customers and authorized third parties with access to price and usage information. In addition, it is reasonable to

consider in these workshops whether to provide customers with access to their cumulative monthly usage, relative to baseline allocations and their cumulative monthly bill.

15. Requiring Sierra Pacific, Mountain Utilities, PacifiCorp and Bear Valley Electric to provide their customers with access to usage information at any time through the Internet and on other means of communications elected by the utility and to provide other interested persons with access to certain information not specific to any one purchaser via the internet is inconsistent with producing equitable rates for consumers, which is a purpose of PURPA, because the costs would be overly burdensome to these utilities at this time.

16. Requiring SCE, SDG&E and PG&E to provide their customers with access to usage information at any time through the Internet and on other means of communications elected by the utility and to provide other interested persons with access to certain information not specific to any one purchaser via the internet is not necessary because prior Commission actions on implementing information disclosure policies in the context of the utilities' advanced metering initiatives constitute a "prior state action" pursuant to 16 U.S.C. § 1621(d), and make further action unnecessary to fulfill EISA requirements.

17. It is reasonable to set a deadline by which SCE, SDG&E, and PG&E must be capable of providing an authorized third party with access to the customer's usage information that is collected by the utility by the end of 2010 should the customer desire that information.

18. It is reasonable to require that SCE, SDG&E, and PG&E be capable of providing a customer possessing an AMI meter with access to the customer's usage information on a near real-time basis by the end of 2011.

19. It is reasonable to require that access to usage data be consistent with rules developed in this proceeding pursuant to EISA, the general public interest, and state privacy rules.

20. It is reasonable for the Commission to consider requiring the three major IOUs to fully comply with Smart Grid standards recommended by NIST in this proceeding.

O R D E R

IT IS ORDERED that:

1. Tendril Networks' Motion to Become a Party to this proceeding is granted.

2. North American Power Partners' Motion to Become a Party to this proceeding is granted.

3. Southern California Edison Company, San Diego Gas & Electric Company, and Pacific Gas and Electric Company shall provide an authorized third party with access to the customer's usage information that is collected by the utility by the end of 2010 should the customer desire that information. This access shall be consistent with the rules developed pursuant to Ordering Paragraph 5 below.

4. Southern California Edison Company, San Diego Gas & Electric Company and Pacific Gas and Electric Company shall provide to their customers with a smart meter access to usage data on a real-time or near real-time basis no later than the end of 2011, consistent with the rules developed pursuant to Ordering Paragraph 5 below.

5. The next phase of this proceeding shall consider rules to provide customers and third parties with access to usage and price data consistent with Energy Information and Security Act of 2007 standards, the general public interest, and state privacy rules.

6. The participation in the next phase of this proceeding by the utilities PacifiCorp, Sierra Pacific, Mountain Utilities, and Bear Valley shall be limited to issues raised by Senate Bill 17 (Chapter 327, Statutes of 2009) unless a utility files a motion in this proceeding requesting full participation within 30 days of the adoption of this decision. Alternatively, each of these utilities may file a motion asking for dismissal from this proceeding. The assigned Commissioner or assigned Administrative Law Judge may grant such a motion via a ruling provided that the utility meets the conditions set forth in Senate Bill 17 for exemption from its requirements.

This order is effective today.

Dated December 17, 2008, at San Francisco, California.

MICHAEL R. PEEVEY
President
DIAN M. GRUENEICH
JOHN A. BOHN
RACHELLE B. CHONG
TIMOTHY ALAN SIMON
Commissioners

I reserve the right to file a concurrence.

/s/ DIAN M. GRUENEICH
Commissioner