



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

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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 R.08-12-009

**COMMENTS OF THE CONSUMER FEDERATION OF CALIFORNIA TO
JOINT RULING INVITING COMMENTS ON PROPOSED POLICIES AND
FINDINGS PERTAINING TO THE SMART GRID POLICIES ESTABLISHED BY
THE ENERGY INFORMATION AND SECURITY ACT OF 2007**

The Commission's Ruling Inviting Comments, issued on or about September 28, 2009, proposes policies and findings to fulfill the regulatory obligations imposed on states by amendments to the Public Utilities Regulatory Policies Act, adopted as part of the Energy Information and Security Act of 2007 (EISA). These Comments address the policies and findings of the Commission.

The Commission's Ruling describes procedures required by the Energy Information and Securities Act of 2007 (EISA). One of those procedures laid out in 16 U.S.C. § 2621(b) states

- (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.

The Commission states, "PURPA requires that the Commission make a determination for each of the utilities subject to its regulatory authority and make that determination consistent with the requirements contained in 16 U.S.C. § 2621(a) – 16 U.S.C. § 2621(c), as discussed above." The Commission then describes its

compliance with the 16 USC § 2621(b) requirement to make findings that support determinations based on evidence presented: “[W]e note that the Commission has “developed a record through filed comments.” That record is insufficient.

EISA requires that the Commission’s determination, as to whether or not the PURPA standard should apply, must be “based upon findings included in such determination and upon the evidence presented at the hearing.”¹ There has been no hearing in this case, as the Commission recognizes: “the tentative conclusions reached in this ruling are the result of a publicly noticed process that has developed a record through filed comments.”² An evidentiary hearing is required to develop evidence and enable the Commission to “base ... findings ... upon the evidence presented at the hearing.”³

Evidence is defined under California law as “testimony, writings, material objects, or other things presented to the senses that are offered to prove the existence or nonexistence of a fact.”⁴ “Proof” is the establishment by evidence of a requisite degree of belief concerning a fact in the mind of the trier of fact or the court.”⁵ The evidentiary hearing is necessary to develop evidence about the particular circumstances in California which will affect implementation of a nationwide standard, and through cross-examination, to determine whether that information is reliable.

As an example, many of the utilities’ comments need to be fleshed out to be fully understood, if they are used to help inform policy decisions. This is best accomplished through cross-examination. For example:

San Diego Gas & Electric (“SDG&E”) states:

¹ 16 U.S.C. 2621(b)(1)(B).
² “Assigned Commissioner and ALJ’s Joint Ruling Inviting Comments On Proposed Policies And Findings Pertaining To The Smart Grid Policies Established By The Energy Information And Security Act of 2007”, issued Sept. 28, 2009 (*hereafter*, “Sept. 09 Joint Ruling”) at 17.
³ 16 U.S.C. 2621(b)(1)(B). *Emphasis added*.
⁴ Evid. Code 140.
⁵ Evid. Code 190.

SDG&E has been proactive in adding Supervisory Control and Data Acquisition (SCADA) installations throughout its service territory for many years, which are foundational for integrating smart grid self-healing attributes. SDG&E is in the initial phases of its Advanced Metering Infrastructure (AMI) deployment and is also modernizing its foundational information technology (IT) systems. . . . These and future similar activities should be funded as part of smart grid initiatives, as they are part of SDG&E’s “smart grid” definition and are enablers of the future long-term vision.⁶

We don’t know how SDG&E defines “smart grid,” whether it includes actions taken in the past and, if so, at what point in time installations became part of SDG&E’s “smart grid.” We don’t know the extent to which, and how, SCADA installations will be used “to integrate smart grid self-hearing attributes.” We don’t know how modernization of SDG&E’s “foundational information technology (IT) systems” will facilitate smart grid functions, which IT systems will be used and are necessary for operation of the smart grid, the extent to which they are used for other utility functions, or the cost of these improvements. All of this information could be discovered and presented at an evidentiary hearing

Pacific Gas & Electric (“PG&E”) states:

PG&E and other electric utilities are in the midst of major multi-year programs to expand and replace transmission and distribution grid assets to meet load growth and to maintain and enhance the reliability of their aging utility infrastructure. These T&D investment programs, and the smart grid related projects and initiatives that accompany them, are essential to meet our customers’ expectations for faster, cheaper, safer and more reliable basic electricity service, as well as to realize the full benefits of integrated renewable resources and active demand side management.⁷

⁶ Feb. 9, 2009 Comments.

⁷ March 9, 2009, Reply Comments at 4

We don't know what smart grid related projects and initiatives are being undertaken in conjunction with replacement of transmission and distribution, the extent to which they are "necessary" for expansion of T&D *vis a vis* smart grid, or the cost of each project and how it will affect total costs of operation. All of this information could be discovered and presented at an evidentiary hearing

Southern California Edison ("SCE") states:

SCE also supports criteria that, where appropriate, call for future smart grid deployments and enhancements to be interoperable with existing capital investments. For example, SCE has invested heavily in substation automation, and believes it is prudent to leverage this existing infrastructure for future smart grid enhancements as much as possible. (Feb. 9, 2009 Comments at 9). "... [M]any of the smart grid investments contemplated in SCE's 2009 GRC, or in the future, are not expected to render existing assets obsolete, and where possible, will "piggyback" on other technology upgrades. One example of a possible piggyback opportunity is found in the current upgrading of digital fault recorders to meet NERC compliance standards. In this process, SCE may be able to add an additional software upgrade to an existing digital fault recorder, improving its capabilities and eliminating the need to deploy a stand-alone phasor measurement unit." (Feb. 9, 2009 Comments at 16-17)

SCE's comments most clearly illustrate the dilemma posed by the need to consider EISA /PURPA standards on recovery of new and stranded costs. SCE says it would be prudent to make the investments necessary to deploy or enhance existing capital investments. Would SCE have made these investments if a new category of smart grid investments had not been created? What factors are being taken into account when SCE decides whether it can piggyback a smart grid investment on other technology upgrades or must deploy a new stand-alone

improvement. How does SCE develop its method of allocating costs between current and future uses, and determine the amount of savings which may be achieved through leveraging the existing infrastructure for future smart grid enhancements. All of this information could be discovered and presented at an evidentiary hearing

When it comes time to make a determination about whether or not to adopt an EIA/PURPA standard, the Commission would benefit from an evidentiary record of facts.

A. Consideration Of Smart Grid Investments Before Making Any New Investment In The Grid

One example of the advantages of an evidentiary record is the Assigned Commissioner's proposal "to 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." This standard, set out in 16 U.S.C. § 2621(d)(18)(A), would require 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 ...". In deciding not to adopt that standard the Assigned Commissioner states, "[a] requirement to make a consideration of a "Smart Grid" technology a prerequisite to such action would almost surely increase costs and eventually consumer rates while decreasing response times for services."⁸ It is just as likely that the increased efficiency, reliability, security and system performance of a qualified smart grid system would decrease costs in the long term, and make rates more equitable. PG&E

⁸ Sept. 28 ruling at 22.

states, for example, “These T&D investment programs, and the smart grid related projects and initiatives that accompany them, are essential to meet our customers’ expectations for faster, cheaper, safer and more reliable basic electricity service.”⁹

The second reason the Assigned Commissioner gives for declining to adopt the prior consideration standard is that it would impose “a regulatory hurdle that can slow infrastructure investment and modernization, thereby undercutting the EISA purpose of producing an the [sic] efficient use of facilities and resources by electric utilities.”¹⁰ SDG&E, on the other hand, suggests that “smart grid investment decisions should be made a part of every utility’s normal investment planning process.”¹¹ If utilities are not required to consider the feasibility of adding smart grid technologies to the grid, a smart grid may be developed haphazardly, and without thought of long-term effects. The right smart grid strategy will result in deployment which will “improve overall efficiency, reliability, and cost-effectiveness of electrical system operations, planning, and maintenance.”¹² Adoption of the standard does not require utilities to invest in new technologies, only to discover and consider them as a part of the normal investment planning process.

A smart grid deployment plan must be developed under SB 17 (Padilla):¹³ “[T]he commission, in consultation with the Energy Commission, the ISO, and other key stakeholders shall determine the requirements for a smart grid deployment plan.”¹⁴ SB 17 also requires each utility to develop and submit a smart grid deployment plan to the commission for approval.¹⁵ SCE has explained how advanced and ‘nonadvanced’ technologies may be integrated into the overall operation and delivery system. Adoption of the standard in subsection “(A)”¹⁶ could be, and should be, integrated into utilities’ planning processes, along with the analyses of cost-effectiveness required by

⁹ PG&E March 9, 2009, Reply Comments at 4.

¹⁰ Sept. 28 ruling at 23.

¹¹ SDG&E Comments at

¹² PU Code § 8362(a)

¹³ SB 17 was approved by the Governor and chaptered on October 11, 1009.

¹⁴ PU Code § 8362(a)

¹⁵ PU Code § 8364(a)

¹⁶ 16 U.S.C. § 2621(d)(18)(A)

SB 17, so that smart grid technology “is deployed in a manner to maximize the benefit and minimize the cost to ratepayers and to achieve the benefits of smart grid technology.”¹⁷

The third reason the Assigned Commissioner gives in the Ruling for declining to adopt the standard is that “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. “ At one time, this was true. Utilities were expected to make decisions about the prudence of an investment without Commission hand-holding. Unfortunately, review in a rate case is going the way of the albatross. Rate review is now considered an “after-the-fact reasonableness review” which is the bogeyman of current utility management. Given the Commission’s penchant for granting pre-approval of utilities’ significant investment decisions,¹⁸ there is not likely to be “an opportunity for ... the Commission’s review of any grid or transmission project” in a rate case.

B. Authorizing 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?

The Assigned Commissioner suggests there is “no 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 regulatory standard in 16 U.S.C. § 2621(d)(18)(B). There is one big difference between the two. The EISA/PURPA standard suggests capital could be

¹⁷ PU Code § 8366

¹⁸ See e.g., D. 09-06-049 (SCE PV program); D.09-09-029 (ARRA Cost Recovery); D. 06-07-027 (AMI Deployment).

“recovered” from customers. Traditional ratemaking does not require ratepayers to contribute capital for deployment of smart grid technologies, nor does it require them to pay a return on capital not contributed by the utility, *e.g.*, DOE grants. To the extent that the utility prudently contributes capital for use in developing the Smart Grid, and that capital has been prudently invested in technologies which are ‘used and useful’ to customers, traditional ratemaking allows the utility to earn a reasonable rate of return on the invested capital. No incentive rate is necessary.

CFC agrees with the Assigned Commissioner that “[g]ranting premiums above market may, absent a compelling reason, distort investment choices and lead to inefficient results.”¹⁹ There is no need for an incentive return when utilities are required by law to “furnish and maintain such adequate, efficient, just and reasonable service equipment, and facilities as are necessary to promote the safety, health, comfort and convenience of its patrons, employees and the public.”²⁰

Operating costs which are necessary for the operation of the smart grid may also be charged to customers if they are reasonable and meet all other statutory criteria. This is what “traditional ratemaking” means.

California courts have also described traditional ratemaking:

The general approach employed by the commission ... is to determine with respect to a "test period" (1) the rate base of the utility, i.e., value of the property devoted to public use, (2) gross operating revenues, and (3) costs and expenses allowed for rate-making purposes, resulting in (4) net revenues produced, sometimes termed "results of operations." Then, by determining the fair and reasonable rate of return to be fixed or allowed the utility upon its

¹⁹ Ruling at 29.
²⁰ PU Code § 451.

rate base, and comparing the net revenue which would be achieved at that rate with the net revenue of the test period, the commission determines whether and how much the utility's rates and charges should be raised or lowered.

Pacific Tel. & Tel. Co. v. Public Utilities Com. (1965) 62 Cal. 2d 634, 644-45.

The "used and useful" rule has traditionally been applied in defining the capital base of regulated firms. So too the "prudent investment" rule. " ... The two principles are designed to assure that the ratepayers, whose property might otherwise of course be 'taken' by regulatory authorities, will not necessarily be saddled with the results of management's defalcations or mistakes, or as a matter of simple justice, be required to pay for that which provides the ratepayers with no discernible benefit."

20th Century Ins. Co. v. Garamendi (1994) 8 Cal. 4th 216, 251; *see also, Los Angeles v. Public Utilities Com.* (1972) 7 Cal. 3d 331, 337

The test period is chosen with the objective that it presents as nearly as possible the operating conditions of the utility which are known or expected to obtain during the future months or years for which the commission proposes to fix rates. The test-period results are "adjusted" to allow for the effect of various known or reasonably anticipated changes in gross revenues, expenses or other conditions, which did not obtain throughout the test period but which are reasonably expected to prevail during the future period for which rates are to be fixed, so that the test-period results of operations as determined by the commission will be as nearly representative of future conditions as possible.

Pacific Tel. & Tel. Co. v. Public Utilities Com. (1965) 62 Cal. 2d 634, 645; *see also, Los Angeles v. Public Utilities Com.* (1972) 7 Cal. 3d 331, 337 .

The Assigned Commissioner correctly determined that reasonable , ratemaking treatment should apply to all utility investments, including those related to the Smart Grid.

The utilities have stated in their Comments that smart grid technologies are being deployed in conjunction with plant and other hardware and software. It would be very difficult to separate out that part of their investment which is ‘smart grid related,’ so that it could be given special ratemaking treatment. The process would require a definition of “Smart Grid,” as well as consideration of whether an investment was made primarily to facilitate deployment of a smart grid or for some other purpose; and determination of how to allocate costs between the smart grid and other operations they support. It is better to consider the smart grid a necessary improvement to existing facilities and treat the funds which support the smart grid like any other investment or expense.

C. Authorizing 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?

The FERC recognized in its Proposed Policy Statement that a key consideration of public utilities in deciding whether to invest in Smart Grid technologies may involve the potential for stranded costs associated with legacy systems that are replaced by Smart Grid equipment. Its response was to propose that any regulated entity seeking to recover stranded cost provide the Commission with a mitigation plan.

The Commission also proposes to permit applicants to file for recovery of the otherwise stranded costs of legacy systems that are to be replaced by smart grid equipment. However, an appropriate

plan for the staged deployment of smart grid equipment, which could include appropriate upgrades to legacy systems where technically feasible and cost-effective, could help minimize the stranding of unamortized costs of legacy systems. Accordingly, we propose that any filing for the recovery of stranded legacy system costs must demonstrate that such a migration plan has been developed.²¹

Stranded costs can be minimized if deployment of smart grid technologies is carefully planned.

SB 17 (Padilla) also creates a process for planning deployment of the Smart Grid:

By July 1, 2010, the commission, in consultation with the Energy Commission, the ISO, and other key stakeholders shall determine the requirements for a smart grid deployment plan consistent with section 8360 and federal law, including the provisions of Title XIII (commencing with section 1301) of the Energy Independence And Security Act of 2007 (Public Law 110-140).

Section 8360 describes the activities the legislature deems needed to create a Smart Grid.

Utilities are expected, by July 1, 2011, to “develop and submit a smart grid deployment plan to the commission for approval.”²² It is the Commission’s responsibility, then, to oversee the deployment of smart grid technology“ in a manner to maximize the benefit and minimize the cost to ratepayers and to achieve the benefits of smart grid technology.”²³ Through this planning process, stranded costs can be minimized.

²¹ Smart Grid Policy, 126 FERC ¶ 61,253 (March 19, 2009) at p. 37, ¶ 51.

²² PU Code § 8364. (a)

²³ PU Code § 8366.

Prior approval of rates should not take place as part of the planning process. CFC 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.

D. 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?

Access to information made available through smart meters and other elements of the Smart Grid must be controlled and made secure. Californians have a distinct need for standards that will protect their Constitutional right to privacy:

The right of privacy is an "inalienable right" secured by article I, section 1 of the California Constitution. ... It protects against the unwarranted, compelled disclosure of various private or sensitive information regarding one's personal life

Hooser v. Superior Court (2000) 84 Cal. App. 4th 997, 1003-1004 (*citations omitted*). In a separate pleading, made jointly with TURN, CFC "recommends 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 party access to customer-specific usage information in a post-AMI world." A comprehensive scheme for protecting customer information must be developed.

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CONCLUSION

CFC appreciates this opportunity to comment on the Assigned Commissioner's proposed determination concerning adoption of standards developed by Congress to guide state commissions creating a smart grid.

Dated: October 26, 2009

Respectfully submitted,

CONSUMER FEDERATION OF CALIFORNIA

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CERTIFICATE OF SERVICE

I hereby certify that on October 28, 2009, I served by e-mail all parties on the service lists for R.08-12-009 for which an email address was known, true copies of the original of the following document which is attached hereto:

**COMMENTS OF THE CONSUMER FEDERATION OF CALIFORNIA TO
JOINT RULING INVITING COMMENTS ON PROPOSED POLICIES AND
FINDINGS PERTAINING TO THE SMART GRID POLICIES ESTABLISHED BY
THE ENERGY INFORMATION AND SECURITY ACT OF 2007**

The names and e-mail addresses of parties served by e-mail are shown on an attachment. In addition, I served the following persons by enclosing said document in an envelope addressed to them and depositing the envelope in the U.S. Mail, with postage prepaid.

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Dated: October 28, 2009

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