

BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA



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Application of Pacific Gas and Electric Company for Approval of Modifications to its SmartMeter™ Program and Increased Revenue Requirements to Recover the Costs of the Modifications (U39M).

A.11-03-014
(Filed March 24, 2011)

**RESPONSE OF THE DIVISION OF RATEPAYER ADVOCATES
TO APPLICATION FOR MODIFICATION OF THE SMARTMETER
PROGRAM**

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I. INTRODUCTION AND SUMMARY

Pursuant to Rule 2.6 of the Commission's Rules of Practice and Procedure, the Division of Ratepayer Advocates (DRA) submits this Response to Application (A.) 11-03-014 filed by Pacific Gas and Electric Company (PG&E). In this application, PG&E proposes to modify its SmartMeter program by allowing its residential and some small commercial customers to request that the wireless radios embedded in the meters be "turned off" or deactivated. This "radio off" proposal was submitted on March 24, 2011, in response to an oral order from President Peevey issued at the Commission's March 10, 2011 business meeting. At that meeting, President Peevey directed PG&E to submit a proposal to allow customers "with an aversion to wireless devices the option of being metered without wireless technology, with the costs to be borne by the customers choosing to opt out."¹

DRA supports, in concept, modifying PG&E's SmartMeter program to provide a way for customers concerned about radio frequency (RF) exposure from SmartMeters to "opt out" of meters transmitting data wirelessly.² DRA also supports the concept that ratepayers who are using smart meters should not be burdened with the incremental costs of an opt-out program. This means that unless the incremental costs are funded in whole or in part by shareholders, these costs must be borne by the customers opting out ("Participants"), with a reduction or waiver of those costs for CARE customers. PG&E's "radio off" proposal would offer an alternative for customers concerned about RF exposure without imposing additional costs on ratepayers. DRA is generally supportive of these objectives.

However, DRA believes that PG&E's proposal is too expensive for customers who wish to opt out. One focus of this proceeding should be to find ways to keep the

¹ PG&E's Prepared Testimony in support of Application (Testimony), p. 1-1.

² Although PG&E uses the term "radio off" to describe its proposal, in this response DRA sometimes refers to it as an "opt-out" proposal, mostly because because it is the term that is familiar to most people who have been following SmartMeter issues. In addition, "radio off" describes a specific approach to an opt-out program; a more general term is needed to discuss alternative technical approaches and program elements.

cost down. This objective, however, should be tempered by recognition that the costs and potential benefits of advanced metering systems are inextricably linked.

Accordingly, DRA seeks in this Response to identify issues that the Commission should consider in balancing the costs and benefits of an opt-out solution. The balance that is struck in this case will impact not only the customers who opt out, but ratepayers generally, and society as a whole. In addition, some of the issues presented in this case may also be applicable to the advanced metering systems of other utilities regulated by the Commission.³

While the cost/benefit considerations are important, DRA is mindful of the customer concerns that led to this opt-out proposal. As the Commission is well aware, some customers are very concerned about possible adverse health impacts of SmartMeters. Given the nature of this concern, and for other reasons, DRA agrees with PG&E that expedited treatment of this application is warranted. However, the schedule proposed by PG&E is unrealistic in that it allows no time for protests/responses to the application, preparation of a scoping memo, or discovery. A schedule should be set that accommodates these elements of the proceeding.

The primary focus of this Response is to identify issues DRA believes the Commission should address in this proceeding.

II. BACKGROUND

This Application was submitted at the direction of President Peevey, in response to demonstrated (and highly publicized) customer concerns about the accuracy, security, reliability, and safety of PG&E's SmartMeter system.⁴ The Commission approved PG&E's SmartMeter deployment applications based upon determinations that the completed system would comply with established regulatory and industry safety

³ A proposal to allow San Diego Gas & Electric (SDG&E) customers to opt out of that utility's SmartMeter program has been filed by UCAN (Application 11-03-015). DRA believes that some of the same issues will need to be addressed in both proceedings.

⁴ Although other California utilities deploying advanced metering systems have received some customer complaints, no other utility has experienced the large number of complaints and vocal opposition that PG&E's deployment has triggered.

standards, and perform adequately with regard to meter accuracy, security, and reliability. The Commission should hold PG&E management responsible for delivering on all of these promises. Any failures to meet these basic commitments should be remedied, without additional funding beyond that approved in Decisions 06-07-027 and 09-03-026. To the extent PG&E spends more than the approved funding to get its SmartMeter system to work properly (i.e., to provide the safe, adequate, and reliable service and the benefits promised) it would be unfair to place the burden of those additional costs on ratepayers. DRA expects that any functionality and cost overrun issues will be addressed in another proceeding.⁵

III. SCOPE OF PROCEEDING AND ISSUES PRESENTED

A. Issues presented by PG&E⁶

PG&E states that its application presents the following issues:

- Is it reasonable to modify PG&E’s SmartMeter program by adding a “radio off” option? PG&E’s cost estimate is \$113.4 million (\$38.3 million in capital costs; \$75.1 million in expenses) in 2012-2013. The two-year gas and electric revenue requirement requested is \$84.4 million. PG&E asks the Commission to find this cost forecast reasonable, but also to allow PG&E to recover actual costs, which would be tracked in a balancing account and trued up annually. PG&E proposes that costs incurred after December 2013 be addressed in PG&E’s 2014 General Rate Case (GRC) and subsequent GRCs.
- The costs of the proposed “radio off” option would be borne entirely by the customers choosing that option. PG&E proposes several payment options consisting of a one-time, up-front charge of \$135 or \$270 plus a monthly fee which would be either fixed or based on consumption. These fees would be discounted by 20% for low-income customers enrolled in the CARE program. In addition, PG&E would charge a “cost-based exit fee” when PG&E turns the radio back on because the customer either requests it or terminates service.

⁵ Possibly the original application proceeding, A.05-06-028, which was reopened in May 2010 and remains open, and/or in a PG&E rate case. As DRA has pointed out in other dockets, the Commission has yet to find a “procedural home” in which to evaluate the Structure Group Report about SmartMeter complaints. See, e.g., *Comments of the Division of Ratepayer Advocates on the Proposed Decision Denying the City and County of San Francisco’s Petition To Modify Decision 09-03-076* (in A. 07-12-009), filed on December 6, 2010.

⁶ Application, pp. 6-10.

- PG&E seeks approval to increase gas and electric rates effective upon implementation of the program (PG&E assumes a January 2012 implementation date), to recover the costs of the program (subject to annual true-up).

In other words, PG&E's proposal requires the Commission to determine:

- 1) whether the "radio off" alternative is a reasonable solution to the concerns of customers;
- 2) whether the cost of the opt-out program should be borne by the Participants, and if so whether the opt-out fees requested by PG&E are just and reasonable;
- 3) whether PG&E's cost estimates for the program are reasonable;
- 4) whether lower cost and/or higher functionality alternatives are available;
- 5) whether the Commission should grant PG&E's request to pre-approve recovery of the actual costs of the opt-out program for 2012/2013 and if so, whether that pre-approval should be subject to conditions designed to control costs; and
- 6) whether the ratemaking treatment and mechanisms proposed by PG&E should be approved.

B. Other Issues Raised by the Application

1. Functionality requirements

PG&E correctly notes that alternative metering technologies may not provide the same functionality as the metering technology currently being deployed.⁷ PG&E's SmartMeter program was approved by the Commission based on a finding that the program would provide economic and environmental benefits, consistent with state energy policy, that would exceed the lifetime costs. These benefits, which depend on the functionality provided by universal deployment of the approved SmartMeter system, include:⁸

⁷ See Testimony, p. 2C-4.

⁸ The minimum functionality requirements for the investor-owned utilities' advanced metering systems were originally set forth in the *Joint Assigned Commissioner and Administrative Law Judge's Ruling Providing Guidance for the Advanced Metering Infrastructure Business Case Analysis* issued on February 19, 2004 in Rulemaking (R.) 02-06-001. The Commission approved PG&E's application to "upgrade" the functionality of its system in D. 09-3-026.

1. Operational benefits, such as reduced meter reading costs.
2. Demand response, which lowers peak energy demand.
3. Energy conservation, enabled by feedback from SmartMeters.

In theory, ratepayers as a whole benefit from these systemwide improvements, whether they opt out or not. These benefits will be reduced by opt-out solutions that reduce meter functionality.⁹ In addition, individual customers can benefit from SmartMeters if they use the information feedback provided to reduce their energy consumption and their bills. This feedback will be lost under most opt-out solutions aimed at reducing RF emissions, and customers who opt out will lose this benefit.

To preserve systemwide and individual customer benefits as much as possible, functional requirements for alternative metering systems used by customers who opt out should be considered. The Commission should determine if relief from the functional requirements specified in Rulemaking 02-06-001, Decision (D.) 06-07-027, and D.09-03-026¹⁰ sufficiently balances the benefits and costs to Participants, ratepayers generally, and society as a whole to justify providing an opt-out alternative to ratepayers.

2. Alternative technical solutions

The Application discusses four alternatives before proposing two: the radio-off and meter relocation options.¹¹ The Commission should evaluate all viable alternative technologies in this proceeding, including:

- Manual meter reads by the customer,
- Monthly remote anchor reads,
- Retaining the legacy meters,
- Wired options.

⁹ See Central Main Power's Response to Investigation dated January 18, 2011 in Maine Public Utilities Commission Docket # 2010-345/389, p. 5.

¹⁰ See footnote 7, supra.

¹¹ Testimony, pp. 1-5 to 1-8.

In addition, the Commission should consider how viable each technical solution would be for towns and communities with a concentration of customers wishing to opt out.

3. Costs

PG&E's application provides estimates for the costs of implementing its proposed opt-out plan. A number of cost issues need to be considered in this proceeding. First is whether the incremental costs of the opt-out program are socialized, paid by the Participants, or paid by utility shareholders. Second, fixed and variable costs associated with each alternative metering system need to be considered under all reasonable levels of participation (see section 5 below). Third, tracking and recovery of actual program costs must be considered. Fourth, treatment of low-income customers who choose to opt out should be considered.

4. Eligibility requirements

PG&E proposes that all residential customers be eligible for the opt-out program, as well as certain commercial customers.¹²

Eligibility requirements are a threshold issue in this proceeding, because they may drive the level of participation in the opt-out program. With restrictive requirements, such as requiring a note from a doctor¹³, the number of customers opting out could be quite limited. With no restrictions, many more customers could opt out. The level of participation in the opt-out program in turn impacts the costs for Participants, because unit variable costs such as manual meter reading and network enhancements vary with the level of participation. Conversely, fixed costs such as a service territory-wide education and outreach campaign increase per Participant if participation is low. The Commission will have to determine eligibility requirements for the program, including whether any commercial customers should be eligible.

¹² Testimony, p. 1-9.

¹³ Assuming there are doctors who will document that a patient's health problem is caused or exacerbated by the customer's SmartMeter.

5. Customer education requirements

PG&E requests over \$18 million for “customer communications and operations support”, but provides no details about what is included.¹⁴ Customers should understand the SmartMeter program so they can make informed decisions regarding participation in the opt-out program. They should be informed about the potential benefits of smart meters for themselves (as tools to allow them to reduce their utility bills) and for society as a whole (reduction of GHG). Customer education should also include information about RF fields, how they propagate, what is known about how they impact human health, and steps that can be taken to limit RF exposure. RF emissions from SmartMeters should be compared to FCC standards, typical ambient RF levels, and other devices with RF emissions. Finally, customers need to understand how they can opt out, and the basis for any eligibility restrictions. The Commission should establish basic education guidelines in this proceeding and a budget cap, and require that actual marketing and outreach materials be publicly vetted via an advice letter process shortly after program adoption.

C. Issues Not Addressed in the Application

1. Compliance with FCC guidelines

PG&E states that “SmartMeters comply with all known standards” including those of the Federal Communications Commission (FCC) and the International Commission on Non-Ionizing Radiation Protection (ICNIRP).¹⁵ Last December, the Commission dismissed an application by the EMF Safety Network (Network) raising concerns about possible adverse health impacts of the SmartMeters.¹⁶ In that proceeding, DRA and other parties raised questions regarding compliance with FCC standards on radio frequency (RF) emissions in the SmartMeter deployment; those questions have not been adequately addressed by the Commission. Commissioner Ryan dissented on the ground that the Commission should postpone a decision until it had had an opportunity to review a report

¹⁴ Testimony, page 3-3.

¹⁵ Testimony, pages 1-4 to 1-5.

¹⁶ D.10-12-001, in A.10-04-018.

by the California Center for Science and Technology (CCST) on this topic, which was then due to be released (and was released) in January 2011. The Commission has not examined the CCST report in any proceeding.¹⁷

Meanwhile, allegations continue to be made that PG&E may be violating FCC operating standards for the radios used in PG&E meters.¹⁸ PG&E provided a letter from the FCC addressing some of these concerns in two previous proceedings, but this information has not yet been subject to rebuttal or cross-examination.¹⁹ To date, the Commission has not adequately addressed the issue of whether PG&E is in fact complying with applicable FCC standards in installing SmartMeters in its service territory. Due to the persistent customer concerns about SmartMeter RF emissions that are driving the opt-out inquiry, it may make sense for the Commission to address this compliance issue in this proceeding.

2. Options for Customers of Other Utilities

UCAN has requested a similar opt-out program for SDG&E customers (A.11-03-015) and Assembly Bill (AB) 37 would require a statewide program. Independent of this bill, DRA recommends that the Commission provide a means to allow residential and perhaps small commercial customers of all the investor-owned utilities in California to opt out of advanced meters. For each utility, the Commission should consider customer concerns and the particular metering technology that has been deployed before selecting an alternative technology. DRA makes the same recommendation with respect to program elements such as marketing and outreach, particularly those that have a significant fixed cost. The Commission should consider

¹⁷ CCST solicited comments on the report, and DRA provided a detailed critique, but as far as DRA knows, there has been no forum for a public discussion of the CCST's findings. DRA's comments may be found at http://www.dra.ca.gov/DRA/hot/110203_smartmeters.htm.

¹⁸ See http://emfsafetynetwork.org/?page_id=3235. "OWS-NIC514" is the FCC ID indicated on the face plate of at least one L+G SmartMeter installed in Oakland CA.

¹⁹ The FCC responded to concerns raised by Cindy Sage in a letter dated August 6, 2010. PG&E presented this letter in reply comments on the Proposed Decision in A.10-04-018 dated November 22, 2010, which provided no opportunity for rebuttal prior to the Commission's issuance of D.10-12-001. PG&E included the same letter in a protest to A.10-09-012 dated October 25, 2010. The Commission has not yet acted on that application.

which elements of an opt-out program should be consistent statewide. A rulemaking proceeding may be the most appropriate method of addressing these statewide issues, especially if AB 37 becomes law. Alternatively, the Commission could consolidate opt-out proposals.

3. Inclusion and impact of smart gas modules in the opt-out program

Although it is not entirely clear on this point, PG&E's proposal seems to assume that the communication radios in both electric and gas meters on a customer's premises would be disabled. It asks that the Commission "[a]pprove PG&E's proposed modifications to its existing SmartMeter™ Program to provide customers the choice to request that PG&E "turn-off"/disable the radio inside their gas/ and or electric SmartMeters™, thus eliminating the radio frequency (RF) communications from the SmartMeters™."²⁰

PG&E's smart gas modules are expected to produce significantly lower RF exposure due to collection and transmission of daily instead of hourly interval data and lower radio power. While those customers opting out of the SmartMeter program would likely want to avoid SmartMeter RF emissions altogether, there may be reasonable metering alternatives that would turn off the radio on the electric meter, but not the gas module. For example, if the radio for an electric meter can be remotely disabled but a gas meter cannot, an opt-out program that relies on remote radio disabling would apply only to electric meters. DRA recommends that certain relevant differences between gas and electric metering systems be considered in determining optimum opt-out solutions.

4. Estimating scale and geographic distribution of participation in opt-out program

PG&E estimates that 145,800 customers will participate in its proposed program.²¹ As noted earlier, participation is driven by who is eligible, and this impacts the costs per Participant. As no utility has yet offered an opt-out program to customers, there is little

²⁰ PG&E Application, p. 2.

²¹ Application, page 1-3.

evidence to support any estimate of participation. To inform the Commission's decision, DRA recommends scenario analyses to consider the impact of a reasonable range of participation in alternative opt-out arrangements. DRA is monitoring consideration of a smart meter opt-out program in the state of Maine, and if any information on participation in that program seems pertinent, DRA will make that information available to parties and to the Commission.

In addition to the scale of participation, the geographic distribution of participation needs to be considered. For example, if eligibility requirements allow entire cities or neighborhoods to opt out, estimates of manual meter reading and network enhancement costs may need to be revisited.

5. Program evaluation

Given the uncertainty about participation, costs, impact on systemwide benefits, and other key aspects of the program, the Commission will need a mechanism to review and revise the opt-out program. A plan for program evaluation should be established in this proceeding.

Additionally, an exit strategy should be considered. It should take into account the following questions:

- Is there a path that will lead to all customer concerns being addressed so that an opt-out program is not needed?
- Assuming that fixed costs would be borne by customers opting out, is there a minimum participation level that will trigger cancellation of the program?

IV. CATEGORIZATION, NEED FOR HEARINGS, AND SCHEDULE

DRA agrees with PG&E that this proceeding should be categorized as rate setting. Hearings will likely be necessary.

Customer concerns about potential impact of SmartMeters on health warrants expedited treatment of this application. However, the schedule proposed by PG&E does not allow time for Protests/Responses to the Application, issuance of a scoping memo, or discovery. The schedule must allow reasonable time for these tasks. DRA recommends

that the schedule be established at the pre-hearing conference (PHC) scheduled for May 6, 2011.

V. CONCLUSION

DRA supports many elements of PG&E's proposed opt-out program, but believes that more analysis is needed to find a less expensive way to balance the costs and benefits of an appropriate opt-out program.

In addressing this application, the Commission will be defining an opt-out program, not just selecting alternative metering technology. All elements of the program, including eligibility criteria, outreach, program evaluation, and program termination should be addressed in a unified fashion in this proceeding.

DRA is generally supportive of an opt-out solution for ratepayers statewide, and further recommends that the Commission consider addressing issues common to all the investor-owned gas and electric utilities deploying smart meters on a statewide basis. Whether or not the Commission addresses opt-out issues on a statewide basis, it may make sense to consolidate PG&E's opt out proposal with the opt-out proposal for SDG&E customers to be addressed in A. 11-03-015.

Respectfully submitted,

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