



BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA

**FILED**

07-22-11  
04:59 PM

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).

Application 11-03-014  
(Filed March 24, 2011)

**MOTION OF THE DIVISION OF RATEPAYER ADVOCATES  
TO AMEND THE SCOPE OF THE PROCEEDING  
TO INCLUDE DATA ON RADIO FREQUENCY EMISSIONS AND  
TO ORDER PG&E TO SERVE SUPPLEMENTAL TESTIMONY ON  
THE COSTS OF AN ANALOG METER OPTION**

CANDACE J. MOREY  
Attorney for the Division of Ratepayer  
Advocates

THOMAS ROBERTS  
Senior Engineer  
Division of Ratepayer Advocates

California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102  
Phone: (415) 703-3211  
Fax: (415) 703-4432  
Email: [cjm@cpuc.ca.gov](mailto:cjm@cpuc.ca.gov)

July 22, 2011

## TABLE OF CONTENTS

	<u>Page</u>
I. MOTION.....	1
II. INTRODUCTION .....	1
III. ARGUMENT .....	3
A. FACTUAL DETERMINATIONS ABOUT RF EMISSIONS FROM PG&E’S SMARTMETERS, AS THEY ARE INSTALLED AND OPERATED, ARE CRITICAL TO THIS PROCEEDING. ....	3
1. PG&E asserts as “fact” statements about RF emissions from SmartMeters in this proceeding but refuses to answer data requests on these issues.....	3
2. Many of PG&E’s claims about RF emissions are unproven and have never been examined in any fact-finding process before the Commission. ....	5
3. Consumer and Commission decisions about the opt-out program should be informed by data, not PG&E’s unverified claims. ....	8
B. PG&E, NOT INTERVENORS, SHOULD SUBMIT INITIAL TESTIMONY ESTIMATING THE COSTS OF AN ANALOG METER ALTERNATIVE.....	9
1. The Commission will need to consider customer requests for an analog meter alternative to the “radio-off” SmartMeter.....	10
2. Determining if PG&E’s proposal is reasonable requires assessing cost and operational impacts of an analog meter alternative. ....	11
3. PG&E is in the best position to present testimony describing an analog meter alternative, not intervenors to the proceeding. ....	13
IV. CONCLUSION.....	15

## **I. MOTION**

Pursuant to Rule 11.1 of the Commission's Rules of Practice and Procedure, the Division of Ratepayer Advocates (DRA) hereby moves to amend the Assigned Commissioner's Ruling and Scoping Memo ("Scoping Memo") of May 25, 2011 issued in Proceeding A.11-03-0-14 as follows:

- (1) Amend the Scope of the Proceeding to include a factual investigation of whether PG&E's SmartMeters, as they are installed and operated, comply with Federal Communications Commission guidelines for exposure to radio frequency (RF) emissions and with PG&E's public claims about the quantity and duration of RF emissions from its SmartMeters.
- (2) Order PG&E to serve supplemental testimony with estimates of the operational and cost impacts to the opt-out program of offering an alternative to retain electromechanical (analog) electric and/or gas meters, including estimated participation rates and the associated fixed and variable costs.

## **II. INTRODUCTION**

Application (A.) 11-03-014, filed by Pacific Gas and Electric Company (PG&E), proposes to allow its residential and some small commercial customers to opt-out of PG&E's SmartMeter program by requesting that the wireless radios embedded in the meters be "turned off" or deactivated. PG&E submitted the "radio-off" proposal on March 24, 2011, in response to an oral order from President Peevey to "bring to this Commission a proposal or a series of proposals that will 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."<sup>1</sup>

---

<sup>1</sup> PG&E's Prepared Testimony in support of Application 11-03-014 ("PG&E's Testimony") at 1-1 (emphasis added); *see also* [http://www.cpuc.ca.gov/PUC/aboutus/Commissioners/01Peevey/speeches/110310\\_meters.htm](http://www.cpuc.ca.gov/PUC/aboutus/Commissioners/01Peevey/speeches/110310_meters.htm).

DRA is generally supportive of the Scoping Memo’s identification of issues in the proceeding and of PG&E’s proposal to provide a “radio-off” SmartMeter as one alternative for customers concerned about exposure to RF emissions. But the Scoping Memo and PG&E’s proposal omit two issues that are critical for determining the adequacy and reasonableness of PG&E’s opt-out program.

The first critical issue is whether PG&E’s claims about the quantity and duration of RF emissions, including that PG&E’s SmartMeters meet FCC guidelines for RF exposure, are supported by data. PG&E itself has made numerous claims about RF emissions from its SmartMeters in this proceeding. At the same time, PG&E steadfastly refuses to provide data to substantiate its claims. This is the appropriate proceeding to determine facts about RF emissions from PG&E’s SmartMeters, as they are installed on customers’ property operating in the mesh network, and not just that they have been certified by the FCC. The public will not be satisfied by repeated untested and unproven assertions by PG&E about its SmartMeters, and the Commission should have data to inform its decisions about the opt-out program. DRA also requests that the Commission amend the Scoping Memo to include this issue, and convene a workshop for the purpose of addressing this issue.

DRA emphasizes that it does *not* ask the Commission to embark on an evaluation of potential health effects caused by exposure to RF emissions or whether the FCC standards and guidelines are adequate to protect human health. The issues of *compliance* with applicable FCC guidelines and the accuracy of PG&E’s public assertions about the RF emissions from SmartMeters, however, are narrow factual issues that are critical to inform customers’ and the Commission’s choices about the reasonableness and adequacy of PG&E’s opt-out proposal. These issues have not previously been subjected to fact finding in a public forum.

Second, determining whether PG&E’s proposed “radio-off” opt-out program is a reasonable solution with reasonable costs depends in part on knowing how the costs and benefits of providing analog meters as an opt-out alternative. Customers and intervenors have voiced their desire for an analog meter alternative to installation of a “radio-off”

SmartMeter, and the Commission will likely have to consider proposals for an analog meter option. PG&E—not other parties to the proceeding—is in the best position to provide estimated costs and potential savings of this alternative. The Commission should require PG&E to provide supplemental testimony on this issue in order to facilitate the most efficient processing of the proceeding, recognizing that it is PG&E’s burden of proof to demonstrate the reasonableness of the opt-out program and costs.

### **III. ARGUMENT**

#### **A. Factual Determinations about RF Emissions from PG&E’s SmartMeters, as they are Installed and Operated, are Critical to this Proceeding.**

DRA respectfully requests that the Assigned Commissioner amend the Scoping Memo to include a fourth issue in the proceeding: “Whether PG&E’s SmartMeters, as they are installed and operated, comply with Federal Communications Commission guidelines for exposure to radio frequency (RF) emissions and with PG&E’s public claims about the quantity and duration of RF emissions from its SmartMeters.” This issue presents critical, disputed facts that should be publicly vetted to inform both customers’ and the Commission’s decisions about PG&E’s opt-out program.

##### **1. PG&E asserts as “fact” statements about RF emissions from SmartMeters in this proceeding but refuses to answer data requests on these issues.**

PG&E raises the issue of RF emissions in this proceeding by making numerous “factual” claims about SmartMeter RF emissions, the duration of RF transmission, and the FCC’s “confirmation” that PG&E’s meters comply with FCC standards. PG&E’s reliance on these claims confirms their importance to this proceeding. At the same time, PG&E refuses to provide any documentation or data to support these claims, which have not been subjected to rigorous fact-finding or cross examination in any public proceeding.

PG&E’s Application asserts that SmartMeters transmit for “very short cumulative duration” and that “exposure to SmartMeter-related RF is considerably less than ... cell

phones and microwaves ovens.”<sup>2</sup> PG&E’s Testimony states that “the Commission and other independent California advisory groups have recognized that SmartMeters comply with all known standards, including those of the [FCC] and the International Commission on Non-Ionizing Radiation Protection (ICNIRP).”<sup>3</sup> PG&E’s Reply to Protests/Responses claims that *even beyond* the prior Commission proceeding that addressed SmartMeter-related RF issues, the FCC has confirmed that SmartMeters, “individually as well as when multiple SmartMeters are located adjacent to one another, comply with safe RF emission levels.”<sup>4</sup> Further, in ongoing efforts to “educate[] customers about RF emissions information,”<sup>5</sup> PG&E claims that “SmartMeters operate far below the [FCC] limit—typically only about one-seventieth as much” and that “SmartMeters transmit only about 45 seconds a day.”<sup>6</sup>

PG&E nevertheless refuses to provide any data that would substantiate or allow parties to challenge its claims about RF emissions. For example, PG&E refuses to respond substantively to data requests asking for:

- FCC ID numbers for PG&E’s SmartMeters and SmartMeter infrastructure PG&E is deploying;<sup>7</sup>

---

<sup>2</sup> Application at 5.

<sup>3</sup> PG&E’s Testimony at 1-4 to 1-5.

<sup>4</sup> PG&E’s Reply to Parties’ Protests/Responses (May 5, 2011) at 8 (“[t]he FCC has determined that PG&E’s SmartMeters comply with FCC standards for safe Emissions levels”), 9 (citing August 6, 2010 letter from the FCC to Ms. Cindy Sage).

<sup>5</sup> See Attachment 1 (Data Response to Aglet\_001-24) (describing the “multiple channels” that PG&E uses to point to information and resources on RF emissions).

<sup>6</sup> PG&E website “Understanding Radio Frequency (RF)”, available at <http://www.pge.com/myhome/edusafety/systemworks/rf/>; Application at 5 (asserting total cumulative duration of 45 seconds of transmission per 24 hours). See also Attachment 2 (Data Response to Aglet\_002-02), slide 22 (statement that “SmartMeters are only actively transmitting data for 45 seconds per day” is “the most popular” of the “Facts about RF” given in PG&E customer focus groups).

<sup>7</sup> Attachment 3 (Data Response to EMF\_001-05).

- spec sheets or other document detailing the RF emissions properties (frequency, strength, duty cycle, etc.) from electric and gas radio controllers;<sup>8</sup>
- FCC Grants of Equipment Authorizations for SmartMeters PG&E is deploying, and substantiation that PG&E is ensuring compliance with any conditions listed on them;<sup>9</sup> or
- the number of RF technical experts employed by PG&E (if any).<sup>10</sup>

PG&E even refuses to provide documents it should already have (including identification numbers to show that its SmartMeters are FCC certified). Instead, PG&E simply asserts that each request is outside of the scope of the proceeding or beyond the scope of its Application. PG&E also relies on the Scoping Memo’s statement that “[i]n D.10-12-001 the Commission determined that PG&E’s SmartMeter technology complied with [FCC] requirements,” in response to a data request inquiring about an FCC letter dating from April 2011, which post-dated D.10-12-001 and thus was not considered or addressed in that proceeding.<sup>11</sup>

**2. Many of PG&E’s claims about RF emissions are unproven and have never been examined in any fact-finding process before the Commission.**

The Commission has not adequately addressed concerns over whether PG&E’s SmartMeters comply with FCC standards for RF emissions. More importantly, it has not considered, let alone determined, whether facts support PG&E’s additional claims about the level and duration of RF emissions from SmartMeters that go beyond the findings adopted in D.10-12-001.

In D.10-12-001 the Commission made two findings of fact about SmartMeter emissions: “[a]ll radio devices in PG&E’s SmartMeters are licensed or certified by the

---

<sup>8</sup> Attachment 4 (Data Response to TURN\_002-05 and TURN\_002-06)

<sup>9</sup> Attachment 5 (Data Response to EMF\_001-18).

<sup>10</sup> Attachment 6 (Data Response to EMF\_001-12).

<sup>11</sup> Attachment 5 (Data Response to EMF\_001-18).

FCC and comply with all FCC requirements,” and “SmartMeters produce RF emissions far below the levels of many commonly used devices.”<sup>12</sup> The only evidence submitted in the Application was the Declaration of one PG&E employee—and he failed to provide even *a single RF emission measurement* from a PG&E SmartMeter or any other data or technical reference to substantiate statements on RF emissions from PG&E’s SmartMeters.<sup>13</sup> No hearings were held, and PG&E’s employee was not subjected to cross examination. EMF filed an Application for Rehearing on January 5, 2011, which is still pending.

Setting aside the ongoing legal challenges to D.10-12-001, the two Findings of Fact cannot support all of PG&E’s RF emissions claims. For example, PG&E claims that PG&E’s SmartMeters transmit for only 45 seconds in total per day. The Commission did not adopt PG&E’s claim of how often meters transmit and receive signals in the findings of fact in D.10-12-001. PG&E claims that the FCC has *confirmed* that SmartMeters comply with RF emission standards even when *multiple meters* are located next to each other. This Commission has never examined if SmartMeters meet FCC guidelines for RF exposures as they are installed and operated in the real world, let alone when *multiple meters* are co-located. The Commission found only that the “radio devices in PG&E’s SmartMeters are licensed or certified” by the FCC.<sup>14</sup> Further, the FCC has indicated that “[t]he actual separation [between multiple units] and operating conditions under which various SmartMeter devices can maintain compliance are *reflected in the test reports for each device.*”<sup>15</sup> PG&E will not provide test reports or confirm its SmartMeters conform to such operating conditions.

---

<sup>12</sup> D.10-12-001, Findings of Fact No. 2, 3.

<sup>13</sup> See Declaration of Daniel M. Partridge in Support of Pacific Gas and Electric Company’s Motion for Immediate Dismissal of Application 10-04-018 (May 17, 2010); ¶ 6. PG&E’s employee did not even state whether he had measured RF emissions from PG&E’s SmartMeters and other devices himself or relied on external sources of information. PG&E’s employee did not claim to have had any specialized education or training on RF emissions from wireless devices.

<sup>14</sup> D.10-12-002, Finding of Fact No. 3.

<sup>15</sup> See Attachment 7 Letter from Federal Communications Commission to the Honorable Lynn C.

In fact, no public information provides RF emission measurements from PG&E’s SmartMeters, let alone PG&E’s SmartMeters operating in the real world where a bank of multiple meters is installed. To DRA’s knowledge the only studies of PG&E’s SmartMeters (which were prepared by a consultant to PG&E) evaluate *estimated* field power densities based on *calculations*—not *actual* RF emissions based on *measurements*.<sup>16</sup> And the estimates of power densities of RF emissions that might exist in the vicinity of a SmartMeter are in turn based on estimates of duty cycle (how often the meter is transmitting data).<sup>17</sup> The study also notes that “[t]he *actual* duty cycle ... will only be known once the system is in place and statistics can be obtained on its operation.”<sup>18</sup> The report does not address RF emissions exposure for multiple collocated meters.

Further, the California Council on Science and Technology (CCST) released a report in January, 2011 that references an Electric Power Research Institute (EPRI) report with measurements of RF emissions from *Itron* meters.<sup>19</sup> PG&E does not use Itron meters. Itron meters are being deployed by Southern California Edison and San Diego

---

Woolsey, April 21, 2011, obtained from <http://emfsafetynetwork.org/wp-content/uploads/2011/04/FCC-letter-Smart-Meters.pdf>.

<sup>16</sup> See “Analysis of RF Fields Associated with Operation of PG&E Automatic Meter Reading Systems,” Richard Tell Associates, Inc., (April 6, 2005), Prepared for PG&E at 6-7, available at [http://www.pge.com/includes/docs/pdfs/shared/edusafety/systemworks/rfsafety/amr\\_rf\\_analysis\\_report\\_2005.pdf](http://www.pge.com/includes/docs/pdfs/shared/edusafety/systemworks/rfsafety/amr_rf_analysis_report_2005.pdf); “Supplemental Report on An Analysis of Radiofrequency Fields Associated with Operation of the PG&E SmartMeter Program Upgrade System.” Richard Tell Associates, Inc. (October 27, 2008), Prepared for PG&E at 4 (“RF fields that might be associated with emissions from the various transmitted components of the SmartMeter Program Upgrade system were *calculated* following the methodology outlined in a prior technical report.”), available at [http://www.pge.com/includes/docs/pdfs/shared/edusafety/systemworks/rfsafety/rf\\_fields\\_supplemental\\_report\\_2008.pdf](http://www.pge.com/includes/docs/pdfs/shared/edusafety/systemworks/rfsafety/rf_fields_supplemental_report_2008.pdf).

<sup>17</sup> *Id.* at 2, 4.

<sup>18</sup> *Id.* at 4 (emphasis added) (estimate of duty cycle for SmartMeters operating in the mesh network).

<sup>19</sup> Health Impacts of Radio Frequency from SmartMeters (Jan. 11, 2011), at n.29, n.30, n.32, available at <http://www.ccst.us/publications/2011/2011smart-final.pdf>. (citing EPRI (2011) “Radio-Frequency Exposure Levels from SmartMeters; A Case Study of One Model, Electric Power Research Institute, February 2011, available at [http://www.sdge.com/documents/smartmeter/EPRI\\_1022270.pdf](http://www.sdge.com/documents/smartmeter/EPRI_1022270.pdf)). The CCST also references the 2008 Richard Tell report.

Gas & Electric.<sup>20</sup> As President Peevey noted in his March 24, 2011 public directive, opposition to SmartMeters is much higher in PG&E’s service area. That may be due to the current poor state of PG&E’s public relations. But the Commission should at least consider whether PG&E’s SmartMeters produce higher RF emissions than meters used by the other Investor Owned Utilities.<sup>21</sup>

**3. Consumer and Commission decisions about the opt-out program should be informed by data, not PG&E’s unverified claims.**

This is the appropriate proceeding to determine whether PG&E’s SmartMeters in operation (including in banks with multiple meters) meet the FCC’s guidelines for exposure to RF emissions. This is basic information that customers should have to inform their decisions on whether to opt-out (and bear the costs of doing so) and that the Commission needs to evaluate the reasonableness of imposing opt-out costs on customers. For example, the Commission should require PG&E to submit evidence to demonstrate that its installations of *multiple* meters comply with all FCC guidelines. This was not determined in D.10-12-001, and multi-meter installations may be more likely to exceed RF emission guidelines.<sup>22</sup> If the FCC certification imposes any conditions on installations, such as minimum spacing requirements between SmartMeters or between components and the meter housing, PG&E should explain and document how it ensuring compliance in the field. Under PG&E’s proposal, individual consumers have limited opportunity to opt-out when they live in multi-dwelling properties where banks of

---

<sup>20</sup> PG&E’s SmartMeters are manufactured by Landis & Gyr and General Electric, with RF radios provided by Silver Springs Networks.

<sup>21</sup> The CCST reports also draws conclusions about the exposure level from a bank of 10 meters, but this is also based on Itron meters and therefore cannot necessarily be used to support assertions about co-located PG&E SmartMeters. See DRA’s comments on the CCST report at 2-3, available at <http://www.ccst.us/projects/smart2/> (noting that “Itron meters [] have a nominal power output approximately four times lower than the electric meters used by PG&E”).

<sup>22</sup> Sage Associates’ “Assessment of Radiofrequency Microwave Radiation Emissions from Silver Springs OWS-NIC514 Model Wireless Electric Meter (Addendum),” at 19. Available at [http://sagereports.com/smart-meter-rf/docs/Smart\\_Meter\\_PG&E\\_OWS\\_reportnoad.pdf](http://sagereports.com/smart-meter-rf/docs/Smart_Meter_PG&E_OWS_reportnoad.pdf).

SmartMeters are present. PG&E—not its concerned customers—should pay to rectify any non-compliant installations or devices without additional funding beyond that approved in Decisions 06-07-027 and 09-03-026. The Commission should not sanction as “reasonable” imposing additional costs on customers to avoid exposures to RF emissions that exceed FCC guidelines.

The Commission should also ensure that the other “facts” about RF emissions that PG&E represents on its website or through other education efforts have been vetted and verified. If PG&E’s claims cannot be substantiated with measurements of RF emissions from PG&E’s actual SmartMeters under a range of installation and operating scenarios, then PG&E should not be presenting these claims as fact to its consumers. Further, if PG&E can support its claims about RF emissions with more substantial evidence, rather than simply citing to D.10-12-001, it could go a long way towards helping customers feel more confident that PG&E’s wireless SmartMeters are safe.

Accordingly, DRA requests that the Commission amend the Scoping Memo to include this limited issue in the scope of the proceeding. The Commission should further clarify that PG&E must respond to data requests that relate to FCC compliance and the amount of RF emissions from its meters (but not health impacts). DRA further recommends that the Commission hold a workshop where PG&E could present and explain data showing compliance with FCC standards take questions from Parties. Allowing discovery and a workshop would not delay the proceeding, and the workshop could be held in advance of any evidentiary hearings in the case.

**B. PG&E, Not Intervenors, Should Submit Initial Testimony Estimating the Costs of an Analog Meter Alternative.**

The Commission must determine whether PG&E’s proposed opt-out program is a reasonable solution for customers who choose not to have a SmartMeter capable of RF transmission and whether the estimated costs of PG&E’s opt-out program are reasonable.<sup>23</sup> PG&E’s estimates of how much it would cost PG&E to provide analog

---

<sup>23</sup> Scoping Memo at 3 (issues 1 and 2).

(electromechanical) meter options are critical to resolving these two key issues. DRA respectfully requests the Assigned Commissioner order PG&E to serve supplemental testimony that provides estimates of the operational and cost impacts to the opt-out program of offering an analog meter alternative.

**1. The Commission will need to consider customer requests for an analog meter alternative to the “radio-off” SmartMeter.**

Some of PG&E’s customers would like the opt-out program to offer the option of having an analog meter instead of a SmartMeter with the radio disabled. This should come as no surprise to PG&E or the Commission. Phone surveys of PG&E’s customers revealed that, among customers who would consider an alternative to a wireless SmartMeter, “the ‘legacy’ analog meter is most popular” and that customers “who see a doctor about their health concerns tend to want the legacy [analog] meter.”<sup>24</sup>

Further, some parties have asserted that a “radio-off” SmartMeter may or will not adequately address their health<sup>25</sup> or other concerns<sup>26</sup> and want the opt-out program to include an analog meter alternative. To be clear, DRA is *not* endorsing any of these Parties’ claims about the health or other safety effects of SmartMeters, and DRA agrees that potential health impacts of SmartMeters should remain outside of the scope of the proceeding. Regardless of whether these concerns are scientifically or medically viable,

---

<sup>24</sup> Attachment 8 (Data Response to Aglet\_002-01) (SmartMeter Choice Survey Results, March 28, 2011, slides 11, 32). *See also* PG&E’s Testimony at 2C-1-3 (describing results of the telephone surveys conducted February 11 - 21, 2011).

<sup>25</sup> EMF Safety Network contends that “[d]isabling the radio portion of the SmartMeters ... will not turn off a significant source of RF caused by the meters.” Protest of EMF Safety Network (Apr. 25, 2011) at 4, 8. *See also* Protest of the County of Mendocino at 7 (“choosing the ‘radio-off’ option does not necessarily mean that the equipment will not be operative, and may still be registering information from other SmartMeters in the area.”).

<sup>26</sup> Parties may also have health and safety concerns due to the switching mode power supply (SMPS). Protest of the Town of Fairfax, California, and the Alliance for Human and Environmental Health (Apr. 25, 2011) at 15. *See also* Protest of Ecological Options Network at 3, 11-13; Wilner & Associates’ Motion to Require PG&E to Include an Analog Meter Option as Part of its SmartMeter Opt-Out Proposal (June 9, 2011) at 1-2. DRA did not respond to Wilner’s motion; however, if the Commission granted DRA’s request to Order PG&E to serve supplemental testimony on this issue it could also resolve Wilner’s motion.

however, several parties have proposed that the opt-out program include an analog meter alternative. The Commission will, therefore, need to consider the costs and feasibility of including an analog meter alternative in its decisions regarding PG&E's opt-out proposal.

**2. Determining if PG&E's proposal is reasonable requires assessing cost and operational impacts of an analog meter alternative.**

In order to determine if the proposed costs of PG&E's opt-out program are reasonable, the Commission should compare the costs and benefits of a radio-off-only program with a program that includes analog meter alternatives. PG&E's proposal does not describe any impacts that providing an analog meter option would have (good or bad) on program functionality or its field deployment, IT workarounds, communications efforts, or other operations. Nor does PG&E's proposal state whether providing an analog meter could reduce the fixed or variable costs of the opt-out program.<sup>27</sup> This information is within PG&E's purview and it is critical to determine whether it is reasonable for PG&E to exclude an analog meter alternative from the opt-out program.

PG&E admits that "SmartMeters with their radios turned-off currently cannot provide interval energy-consumption data," making them no different in this respect from electromechanical meters.<sup>28</sup> PG&E also acknowledges that much of the feature set of the SmartMeter technology requires the radio communications to be enabled, and thus will not be functional when the device is in radio-off mode.<sup>29</sup> If analog and radio-off SmartMeters are functionally identical at this point in time (as PG&E's Testimony seems

---

<sup>27</sup> PG&E simply claims that replacing new SmartMeters with analog meters is an "infeasible" option. See PG&E's Testimony at 1-8.

<sup>28</sup> Compare PG&E's Testimony at 1-6 with 1-8.

<sup>29</sup> PG&E's Testimony at 2A-4. Features and functions that are unavailable to a SmartMeter with the radio disabled include: tariff or demand response programs, remote service connect/disconnect, outage information and power status, time of use data collection, and home area network connectivity to appliances inside the home, among other functions.

to indicate), installing radio-off SmartMeters will not advance California energy policies that require interval energy consumption data to implement.<sup>30</sup>

On the other hand, providing an analog meter alternative might produce cost savings. For example, PG&E estimates that when the proposed radio-off option is offered, approximately 3.8 percent of residential meters will not yet be converted from legacy to SmartMeters.<sup>31</sup> If customers from this pool chose an analog meter, this could potentially save costs from:

- delayed or avoided costs (related to purchasing and installation costs of SmartMeters for opt-out customers);
- reducing the initial number of customer field visits to turn off radios (which PG&E assumes will take 1.5 hours and are incremental to the field costs to install each SmartMeter),
- delay or eliminate the need for an “exit” fee for some customers (if an opt-out customer moves PG&E could install the SmartMeter at that point in time);
- reduce how many PG&E technicians are trained and provisioned to disable radio transmissions from SmartMeter communications modules; or
- reduce or eliminate certain IT modifications and workarounds.

PG&E’s proposal and testimony should at least address these or other potential cost savings. PG&E’s should also provide estimates of any incremental costs to provide customers with more than one opt-out alternative, for example, if PG&E will claim that its customer service representatives would require more time to explain two opt-out options rather than just one. This is important information for assessing the relative costs (and hence reasonableness of) of competing proposals for the opt-out program.

---

<sup>30</sup> Cf PG&E’s Testimony at 1-8.

<sup>31</sup> PG&E’s Testimony at 2A-5. It is not clear to what extent this estimate reflects the delay list or expected additions to the delay list or simply the time needed to complete SmartMeter installations.

Finally, PG&E’s opt-out proposal ignores the issue of SmartMeter deployment or opt-out alternatives for customers who are on the delay list. PG&E has tracked requests to delay replacement of an analog meter with a SmartMeter since January 2010, and now has over 16,700 accounts on the delay list.<sup>32</sup> The Scoping Memo directs the parties to address how the delay list should be coordinated with the opt-out program.<sup>33</sup> PG&E should provide Testimony with estimates of how the existence of the delay list could affect costs and/or customers’ acceptance of the “radio-off” compared to an analog meter alternative.<sup>34</sup>

**3. PG&E is in the best position to present testimony describing an analog meter alternative, not intervenors to the proceeding.**

While the Scoping Memo allows Parties to recommend other reasonable alternative methods to opt-out, it also requires them to “provide the estimated costs of any recommended alternative opt-out program, and a proposed cost recovery mechanism.”<sup>35</sup> This turns the burden of proof on its head and will make the proceeding less efficient and hearings more difficult to administer.

Estimated costs to provide an analog meter option would mainly be derived from information provided in the first instance by PG&E. Intervenors will have to conduct extensive discovery (and hope that they receive sufficient responses) and then estimate opt-out participation rates to build up costs estimates to provide an analog meter alternative. Testimony from multiple parties may be submitted with competing proposals and conflicting cost estimates. Intervenors may be more likely to submit rebuttal testimony and ask to cross-examine other intervenor witnesses, and it may be difficult to prevent “friendly cross”. Further, PG&E might refuse to address the costs of offering an

---

<sup>32</sup> Attachment 9 (Data Response to EMF\_001-08).

<sup>33</sup> Scoping Memo at 4.

<sup>34</sup> For example, PG&E’s proposal does not specify cost savings associated with eliminating a separate field visit to turn off the radio (or, if an analog meter option were provided, deferred or avoided costs of delaying deployment of such SmartMeters).

<sup>35</sup> *Id.*

analog meter option in its rebuttal testimony and object at hearings to questioning of its witness on that topic. In short, this would be an inefficient process to administer, and would likely significantly increase the complexity of hearings.

Further, requiring intervenors to provide cost estimates in their own testimony would place them in the awkward position of defending the costs of a program that PG&E will administer. This turns the burden of proof on its head. PG&E has the information to formulate cost estimates of the various alternatives, and PG&E alone bears the burden of proving that the proposed radio-off opt-out program and costs are reasonable.

The State of Maine PUC rejected the utility's argument "that a SmartMeter opt-out program should not include an option for an electro-mechanical meter."<sup>36</sup> Even if this Commission ultimately takes a different approach, the record and hence its decision should reflect a comprehensive estimate by PG&E of an opt-out program with analog-meter options compares to a "radio-off" only program. Parties should have a meaningful opportunity to evaluate and respond to PG&E's cost estimates in rebuttal testimony, not simply through cross-examination. This would also be consistent with, and better achieve the goals leading to President Peevey's directive that PG&E make "a proposal *or a series of proposals* that will allow customers with an aversion to wireless devices the option of being metered without wireless technology."<sup>37</sup>

Considerations of administrative efficiency, due process, and the burden of proof all strongly suggest that PG&E should submit the initial testimony outlining costs and operational impacts of analog meter alternatives. Accordingly, PG&E should be ordered to serve supplemental testimony that provides fixed and variable cost estimates if the opt-out program were to allow customers to retain their analog meters and/or to or replace an already-installed SmartMeter with an analog meter, in addition to and instead of

---

<sup>36</sup> Attachment 10, State of Maine Public Utilities Commission, Docket 2010-345 et al, Order (Part II) (June 22, 2011) at 13.

<sup>37</sup> PG&E's Testimony at 1-1 (emphasis added), *see also* [http://www.cpuc.ca.gov/PUC/aboutus/Commissioners/01Peevey/speeches/110310\\_meters.htm](http://www.cpuc.ca.gov/PUC/aboutus/Commissioners/01Peevey/speeches/110310_meters.htm).

providing a radio-off meter option. The deadline could be after a workshop<sup>38</sup> to discuss options proposed by PG&E and other parties (which could help focus the components of the proposals) but it should be well in advance of the date set for intervenor testimony.

#### IV. CONCLUSION

For all the foregoing reasons DRA respectfully requests that the Commission grant DRA's Motion and Order PG&E to provide the relief requested herein.

Respectfully submitted,

/s/ CANDACE J. MOREY

---

Candace J. Morey  
Staff Counsel

Division of Ratepayer Advocates  
California Public Utilities Commission  
505 Van Ness Avenue  
San Francisco, CA 94102  
Phone: (415) 703-3211  
Email: [cjm@cpuc.ca.gov](mailto:cjm@cpuc.ca.gov)

July 22, 2011

---

<sup>38</sup> On July 14, 2011, the Assigned Administrative Law Judge served a notice to the service list stating her intent to set a date for a workshop to discuss the options that have been proposed by PG&E in its application, as well as any additional options proposed by parties.