

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

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

Application of Utility Consumers' Action Network for Modification of Decision 07-04-043 so as to Not Force Residential Customers to Use Smart Meters.

Application of Consumers Power Alliance, Public Citizen, Coalition of Energy Users, Eagle Forum of California, Neighborhood Defense League of California, Santa Barbara Tea Party, Concerned Citizens of La Quinta, Citizens Review Association, Palm Springs Patriots Coalition Desert Valley Tea Party, Menifee Tea Party - Hemet Tea Party - Temecula Tea Party, Rove Enterprises, Inc., Schooner Enterprises, Inc., Eagle Forum of San Diego, Southern Californians For Wired Solutions To Smart Meters, and Burbank Action For Modification of D.08-09-039 and A Commission Order Requiring Southern California Edison Company (U338E) To File An Application For Approval of A Smart Meter Opt- Out Plan.

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

(NOT CONSOLIDATED)

Application 11-03-015 (Filed March 24, 2011)

(NOT CONSOLIDATED)

Application 11-07-020 (Filed July 26, 2011)

(NOT CONSOLIDATED)

## ADMINISTRATIVE LAW JUDGE'S RULING SEEKING CLARIFICATION

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This Administrative Law Judge's Ruling (Ruling) seeks clarification from Pacific Gas and Electric Company (PG&E), San Diego Gas & Electric Company (SDG&E), Southern California Edison Company (SCE) and Southern California Gas Company (SoCalGas) (collectively, the investor-owned utilities or IOUs) concerning the frequency and duration of radio frequency (RF) emissions from wireless smart meters.<sup>1</sup> This clarification shall be filed by November 1, 2011.

On September 14, 2011, I held a combined workshop to consider alternatives for customers who wish to opt-out of a wireless smart meter. Representatives from the IOUs and the smart meter manufacturers<sup>2</sup> were present to discuss the technological feasibility and costs of the various alternatives. During the workshop, there were various comments concerning the frequency and duration of the transmissions from the wireless smart meters. According to some parties, the wireless smart meters transmit data in short bursts throughout the day, with each burst lasting a few milliseconds. These parties state that, on average, the cumulative amount of time for the transmission would be 45 seconds a day. Other parties, however, state that while the transmission burst may only last a millisecond, the frequency of the transmission occurs so often that the transmission should be considered constant.

I want to make sure I fully understand this issue. Consequently, I am asking the IOUs to provide further clarification concerning the frequency and

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<sup>&</sup>lt;sup>1</sup> As used in this Ruling, a wireless smart meter is a digital electric or gas meter that transmits customer usage data through radio transmission.

<sup>&</sup>lt;sup>2</sup> The smart meter manufacturer representatives were from ITRON, Silver Spring Networks, and Aclara.

duration of the transmissions from the wireless meters and the associated RF emissions. PG&E, SDG&E, SCE and SoCalGas shall, therefore, respond to the following questions:

- 1. What is an average duration (in seconds) that a residential smart meter transmits in a 24 hour period?
  - a. How is this average computed or measured?
- 2. How many times in total (average and maximum) is a smart meter scheduled to transmit during a 24-hour period?
  - a. How many of those times (average and maximum) are to transmit electric usage information?
  - b. How many of those times (average and maximum) are for other purposes? What are those other purposes? Please specify number of times (average and maximum) by type/category of transmission.
- 3. Under what scenarios does a meter transmit outside of the daily schedule, i.e., unscheduled transmission such as on-demand read, tamper/theft alert, last gasp, firmware upgrade etc.?
- 4. Typically, how much of the communication between the customer's meter and the utility is unscheduled vs. scheduled?
- 5. Are there any other factors that go into determining duration and/or frequency of meter transmissions (e.g., if a meter can't access the network when it's trying to send data, type of a meter etc.)? If yes, please identify these factors.
- 6. What is the amount of RF emission at the source when a meter is transmitting data (instantaneous maximum peak level, averaged over 30 minutes)?
- 7. Does the amount of RF emission vary depending on duration of transmission/volume of data being sent? For example, are RF emissions higher when there is a larger volume of data to be transmitted?

- 8. Are there any other factors that impact the amount of RF emissions? If so, please identify the factor(s) and its impact on RF emissions.
- 9. Is there RF emission when the meter is not transmitting? If yes, what is the amount of RF emission?
- 10. Is there a difference in the amount of RF emissions for a wireless smart meter with the radio off and a smart meter with the radio out? If yes, what is that difference and how is it calculated?
- 11. Is there a difference in the amount of RF emissions for a wireless smart meter with the radio off and an analog meter? If yes, what is that difference and how is it calculated?

As part of their responses to the questions above, the IOUs shall identify the individual who prepared the response to each question. The IOUs shall file their responses to the questions listed above by November 1, 2011.

IT IS RULED that by November 1, 2011, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison Company, and Southern California Gas Company shall file a response to the questions concerning radio frequency emissions listed in this Ruling.

Dated October 18, 2011, at San Francisco, California.

/s/ AMY C. YIP-KIKUGAWA
Amy C. Yip-Kikugawa
Administrative Law Judge