



BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

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Application of EMF Safety Network for  
Modification of D.06-07-027 and D.09-03-026.

Application 10-04-\_\_\_\_  
(Filed April 6, 2010)

A1004018

**APPLICATION OF EMF SAFETY NETWORK  
FOR MODIFICATION OF D.06-07-027 AND D.09-03-026**

Pursuant to Rules 2.1 and 2.2 of the Commission's Rules of Practice and Procedure, EMF Safety Network (Network) submits this application for modification of Decision (D.) 06-07-027, the Commission's final opinion in the application of Pacific Gas and Electric Company (PG&E) for authority to deploy an Advanced Metering Infrastructure (AMI) project known now as the Smart Meter program, and D.09-03-026, the Commission's final opinion regarding PG&E's application to change the technology used in the Smart Meter program.

On April 6, 2010, Network tendered to the Commission's Docket Office a petition for modification of D.06-07-027 and D.09-03-026. The Docket Office rejected the pleading as untimely. In doing so, it stated, "This is the Docket Office's courtesy notice that pursuant to the directives from the Docket Advisor, ... EMF Safety Network's above-referenced Petition for Modification (PFM) should be resubmitted as a new application rather than a petition for modification for filing in the underlying two closed proceedings ...."

Network now resubmits this application electronically on April 12, 2010. Pursuant to instructions from the Commission's Docket Office, Network will not change any date on the document.

**1. Summary**

Network is a coalition of business and property owners, concerned citizens and PG&E ratepayers in northern California who address health, environmental, and

safety impacts associated with electromagnetic fields (EMF) and radiofrequency radiation (RF) technologies.

Network requests Commission orders that will modify D.06-07-027 and D.09-03-026 to (1) re-open Commission review of PG&E's Smart Meter program; (2) require PG&E to submit an independently prepared RF Emissions Study; (3) schedule evidentiary hearings on RF health, environmental, and safety impacts; (4) review actual Smart Meter program performance; (5) allow customers to opt out; and (6) impose an immediate moratorium on PG&E installation of new Smart Meters pending completion of the requested study, evidentiary hearings, and the proposed Commission review.

In 1993 the Commission authorized utilities to carry out 'no and low cost' EMF avoidance in new utility projects.<sup>1</sup> In January 2006 the Commission affirmed this policy in D.06-01-042. The history of the investigation included EMF's from cellular radiophone facilities.<sup>2</sup> The Smart Meter program is not in accord with the Commission's authorization.

The Commission and other interested parties did not adequately address health, environmental, and safety impacts related to widespread deployment of RF Smart Meter technologies, either in the scoping memo or the decision in either proceeding.

PG&E's Smart Meter RF emissions data is inconsistent, contradictory and at odds with other RF expert findings. An independent RF emissions study, reflecting actual operating conditions for the Smart Meter program, is critical for interested parties to evaluate evidence of health, environmental, and safety impacts, including but not limited to Federal Communications Commission (FCC) compliance.

Scientific studies show evidence of biological harm from RF exposure, at levels far below the FCC safety standard. RF is still under investigation as a carcinogen by

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<sup>1</sup> Short Factsheet on EMF The California EMF Program 1999

<sup>2</sup> PUC Actions Regarding EMFs  
<http://www.cpuc.ca.gov/PUC/energy/Environment/ElectroMagnetic+Fields/action>

the National Toxicology Program and the World Health Organization. Vulnerable groups are especially at risk.

Scientists, governments, and health agencies are calling for caution in the use of RF technologies. Local governments have asked the Commission to hold a public review of Smart Meters and their potential health, environmental, and safety impacts.

Commission policymaking goals for the Smart Meter program included enhanced reliability, reduction in consumer costs and protection of the environment.<sup>3</sup> Current media reviews and customers report numerous complaints prior to or following installation of Smart Meters for a variety of reasons. Network requests a review of actual Smart Meter program performance in light of Commission policymaking goals.

Network understands that existing time-of-use meters provide an incentive for energy conservation benefits, and that such meters need not transmit RF. If conservation is an important goal, Network requests the Commission require PG&E to install non-RF alternatives, or utilize shielded cable, or maintain “old style” meters and employ an educational campaign instead of deploying wireless meters.

The Commission should reopen its review of Smart Meters, and require PG&E to demonstrate that the Smart Meter program is consistent with delivery of safe, reliable gas and electric service at reasonable rates.

## **2. Interest in Smart Meter Program**

Network was not a party to the applications in which the Commission issued D.06-07-027 and D.09-03-026. However, Network and its members have a clear and compelling interest in health, environmental, and safety impacts of chronic RF exposure from the Smart Meter program, especially impacts on the EMF sensitive, children, pregnant women, seniors, people with medical implants, and the immune compromised.

Network provides public education on health, environmental, and safety impacts associated with EMF and RF, and offers resources for community advocates in support

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<sup>3</sup> Decision 06-07-027 July 20, 2006 p. 2

of public policy change.<sup>4</sup> Network's mission is public education, policy development, and community advocacy to limit further widespread, chronic, involuntary EMF and RF exposures. Network promotes the precautionary principle and prudent avoidance of EMF and RF. Network supports wired alternatives (for example, shielded cable) instead of wireless networks for communications and data transmission services.

Network was founded in June 2009. It evolved out of a successful, 2007 campaign that opposed installation of wireless internet (Wi-Fi) in the city of Sebastopol. Network now has volunteer officers and an informal membership list of approximately 95 people. Network has informal working relationships with public policy and technical expert advisors. Network convenes weekly meetings in Sonoma County. Network is one of several hundred EMF and RF advocacy groups<sup>5</sup> and supports and coordinates efforts with other groups.

### **3. Compliance with Article 2**

Pursuant to Rule 2.1(a), the exact name of the applicant is:

EMF Safety Network  
PO Box 1016  
Sebastopol, CA 95472  
(707) 829-9403

Network's principal place of business is Sebastopol, CA. EMF Safety Network is not a corporation or trust.

Pursuant to Rule 2.1(b), the person to whom correspondence or communications in regard to the application should be addressed is:

Sandra Maurer, Founder  
EMF Safety Network  
PO Box 1016  
Sebastopol, CA 95472  
(707) 829-9403  
sandi@emfsafetynetwork.org

Network consents to e-mail service of documents.

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<sup>4</sup> Network hosts an educational website: [www.emfsafetynetwork.org](http://www.emfsafetynetwork.org).

<sup>5</sup> Global EMF Websites; <http://emfsafetynetwork.org/?p=120>.

Pursuant to Rule 2.1(c), Network proposes that the application be categorized as a ratesetting proceeding. Network does not request any immediate change to PG&E gas or electric rates, but the proceeding could result in adoption of new tariff provisions. Network does not believe that the application should be categorized as an adjudicatory or quasi-legislative proceeding. Under Rule 7.1(e)(2), the ratesetting category is the default category in this circumstance.

Network requests that the Commission convene a prehearing conference and evidentiary hearings. The issues to be considered are set forth in Section 4 herein. Network proposes the following procedural schedule, but Network suggests that scheduling details be determined at the prehearing conference.

April 6, 2010	Network files application
April 19	Application appears in Daily Calendar
May 19	Protests and responses due
May 26	Prehearing conference
June 23	Applicant testimony served
July 21	Responsive testimony served
August 16-20	Evidentiary hearings
September 10	Opening briefs filed
October 1	Reply briefs filed
November 9	Proposed decision filed and served
November 29	Opening comments filed
December 6	Reply comments filed
December 16	Decision appears on Commission agenda

Network did not participate in Application (A.) 05-06-028 in 2005 and 2006, or in A.07-12-009 in 2008. Network was unable to submit a petition for modification immediately following the issuance of D.06-07-027 or D.09-03-026. Network was created, in part, as a response to the proliferation of wireless technologies that expose the public to health, environmental, and safety impacts without their knowledge or consent, including but not limited to PG&E's Smart Meter program.

#### **4. Requested Relief**

Network requests that the Commission modify D.06-07-027 and D.09-03-026 to do the following: First, re-open Commission review of PG&E's Smart Meter program. Second, require PG&E to submit an independently prepared RF Emissions Study, that reflects actual operating conditions on Smart Meters, repeaters, and Home Area Network (HAN) systems. The study should include peak RF emissions, duty cycles and

the cumulative impacts of multiple Smart Meter equipment.<sup>6</sup> Third, schedule evidentiary hearings that allow Network and other parties the opportunity to present evidence and testimony on RF health, environmental, and safety impacts. (This application does not seek a CEQA review.) Fourth, review actual Smart Meter program performance, including cost effectiveness of Smart Meter installations, customer adoption of HAN equipment, energy conservation achieved, reliability, interference, privacy and security risks, and fire hazards. Fifth, require PG&E to amend its tariffs to afford customers the right to opt out of the Smart Meter program, covering installation of Smart Meters at individual customer premises and installation of repeaters in individual neighborhoods. The scope of the Commission's review of opting out shall include the possibility of disabling the RF function of existing Smart Meters, removal or disabling of repeater equipment, use of shielded cable or fiber optics to transmit data, and alternative meter reading protocols. Sixth, impose an immediate moratorium on PG&E installation of new Smart Meters pending completion of the requested study, evidentiary hearings, and Commission review.

Network requests that the Commission issue an interim opinion that will modify Ordering Paragraph 1 of D.06-07-027 with the following specific wording:

1. Pacific Gas and Electric Company (PG&E) is authorized to deploy the proposed Advanced Metering Infrastructure (AMI) project as described and modified by this decision. On or before the fifth business day after the effective date of this decision, PG&E shall cease installation and activation of AMI project gas and electric meters (Smart Meters) pending completion of Commission review of an independent RF Emissions Study, review of RF health, environmental, and safety impacts, and review of actual Smart Meter program performance.

Network requests that the Commission modify Ordering Paragraph 18 of D.06-07-027 with the following specific wording:

18. ~~Application 05-06-028 is closed.~~ Within 15 days after the effective date of this decision, PG&E shall file gas and electric advice letters which amend its tariffs to

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<sup>6</sup> The details of the requested study should be determined at a pre-hearing conference convened soon after the Commission acts on the instant application.

provide that any PG&E customer may opt out of installation of a new AMI project meter or opt out of continuing operation of such meters already installed. Opting out shall cover installation of Smart Meters at individual customer premises and installation of repeaters in individual neighborhoods. PG&E shall serve the advice letters on EMF Safety Network and all parties to this proceeding. The advice letters shall become effective ten days after filing.

Network requests that the Commission add a new Ordering Paragraph 19 to D.06-07-027 with the following specific wording:

19. Application 05-06-028 remains open to review an independent RF Emissions Study, review RF health, environmental, and safety impacts, and review actual Smart Meter program performance associated with the AMI project that is the subject of the application, customer choice to decline installation of AMI project meters, and related ratemaking. Within 30 days after the effective date of this decision, the assigned Administrative Law Judge shall convene a prehearing conference to initiate review of and evidentiary hearings on these issues.

Network requests that the Commission modify Ordering Paragraph 1 of D.09-03-026 with the following specific wording:

1. Pacific Gas and Electric Company (PG&E) is authorized to proceed with the proposed Smart Meter Upgrade, subject to the conditions and costs specified in this decision. On or before the fifth business day after the effective date of this decision, PG&E shall cease installation and activation of the Smart Meter Upgrade pending completion of Commission review of an independent RF Emissions Study, review of RF health, environmental, and safety impacts, and review of actual Smart Meter program performance.

Network requests that the Commission modify Ordering Paragraph 13 of D.09-03-026 with the following specific wording:

13. Application 07-12-009 is closed. Within 15 days after the effective date of this decision, PG&E shall file gas and electric advice letters which amend its tariffs to provide that any PG&E customer may opt out of installation of a new Smart Meter or opt out of continuing operation of such meters already installed. Opting out shall cover

installation of Smart Meters at individual customer premises and installation of repeaters in individual neighborhoods. PG&E shall serve the advice letters on EMF Safety Network and all parties to this proceeding. The advice letters shall become effective ten days after filing.

Network requests that the Commission add a new Ordering Paragraph 14 to D.09-03-026 with the following specific wording:

14. Application 07-12-026 remains open to review an independent RF Emissions Study, review RF health, environmental, and safety impacts, and review actual Smart Meter program performance associated with the Smart Meter project that is the subject of the application, customer choice to decline installation of Smart Meters, and related ratemaking. Within 30 days after the effective date of this decision, the assigned Administrative Law Judge shall convene a prehearing conference to initiate review of and evidentiary hearings on these issues.

## **5. Justification**

The California EMF Program Short Factsheet on EMF states, *“In 1993, the California Public Utilities Commission (CPUC) authorized the state’s investor-owned utilities to carry out ‘no and low cost EMF avoidance and measures’ in construction of new and upgraded utility projects.”* Decision 06-01-042, January 26, 2006, affirmed this 1993 policy. A report of the history behind this authorization states, *“On January 15, 1991, the PUC began an investigation to consider the Commission’s potential role in mitigating health effects, if any, of EMFs created by electric utility power lines and by cellular radiotelephone facilities.”*<sup>7</sup> The Smart Meter program is not in accord with this Commission authorization.

### **5.1 Commission Did Not Address RF Health Impacts**

Smart Meter RF health, environmental, and safety impacts were not included in the scoping memos issued July 27, 2005 by Assigned Commissioner Michael Peevey in

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<sup>7</sup> PUC Actions Regarding EMFs  
<http://www.cpuc.ca.gov/PUC/energy/Environment/ElectroMagnetic+Fields/action>

A.05-06-028 or March 13, 2008 by Assigned Commissioner Rachel Chong in A.07-12-009. Neither D.06-07-027, or D.09-03-026 mention RF health, environmental, and safety impacts. The Commission did not consider important issues about RF emissions from individual meters, including peak RF signals, duty cycles, and the cumulative impacts of multiple meters, repeaters and other equipment associated with the Smart Meter program. Such omissions warrant further review.

## **5.2 PG&E RF Emission Data Are Inconsistent**

PG&E's paltry, inconsistent and contradictory information on RF emissions from Smart Meters is unbelievable and at odds with other RF expert findings.<sup>8,9</sup> Several PG&E bulletins and spokespersons make varying claims on how often the Smart Meter electric meters transmit RF, anywhere from every hour to every 4 to 6 hours to 2% or 4% of the time. Similar inconsistencies are also found with gas meter emissions. The PG&E RF figures are time-averaged which minimizes RF peak emissions data. An independent RF emissions study, reflecting actual operating conditions for the Smart Meter program, is critical for interested parties to evaluate evidence of health, environmental, and safety impacts, including but not limited to Smart Meter compliance with FCC RF safety standards.

A recent Electric Power Research Institute (EPRI) report states that in some circumstances a house meter can be used as a repeater channeling data from up to 1000 other homes and in extreme cases a residential Smart Meter might have a 50% duty cycle. Considering PG&E waited a year or more, until after they installed millions of smart meters, to make their RF Safety Report publicly available, can they be trusted to care about delivering safe and reliable service?

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<sup>8</sup> What You Should Know About Smart Meters, Sage Associates, Environmental Consultants, March 2010 <http://emfsafetynetwork.org/wp-content/uploads/2010/03/What-You-Need-To-Know-Ab182A18.pdf>.

<sup>9</sup> A Perspective on Radio-Frequency Exposure Associated With Residential Automatic Meter Reading Technology, Electric Power Research Institute, February 2010.

### **5.3 Existing RF Safety Standards**

PG&E's RF Safety report claims the RF emissions from Smart Meters are safe because they are far below the FCC RF Safety Standards. The FCC RF Safety Standards are designed for short-term thermal exposures only. Network believes the FCC RF Safety Standards are inadequate to protect public health from long-term chronic RF exposures to Smart Meters. In addition PG&E RF figures are time-averaged and do not give reliable estimates of average and peak RF emissions that determine the amount and duration of RF exposure and how these relate to safety and compliance.

#### **5.3.1 Letter from the Environmental Protection Agency**

A 2002 letter from the EPA (Environmental Protection Agency) states the FCC standards are *"thermally based, and do not apply to chronic, non-thermal exposure situations."*<sup>10</sup>

#### **5.3.2 Cities and Counties Request FCC to Update Studies**

The City Council of Portland, Oregon passed a resolution on May 12, 2009, requesting *"the FCC to work in cooperation with the FDA and other relevant federal agencies to revisit and update studies on potential health concerns arising from RF wireless emissions in light of the national proliferation of wireless use"*.

The California counties of Los Angeles, Santa Barbara, San Francisco, and the cities of Sebastopol, Glendale, Agoura Hills, Albany, Portland, OR, Santa Fe, NM and Tucson, AZ adopted similar resolutions asking the FCC to update its RF studies in light of the proliferation of wireless devices.<sup>11</sup>

### **5.4 Scientific Studies Show Evidence of Biological Harm**

There are a substantial number of scientific studies in support of the conclusion that RF exposure is harmful to human and environmental health. Network can produce many more studies and information related to RF health and environmental impacts.

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<sup>10</sup> [http://www.emrnetwork.org/position/noi\\_response/noi\\_epa\\_response.pdf](http://www.emrnetwork.org/position/noi_response/noi_epa_response.pdf).

<sup>11</sup> <http://cloutnow.org/localres/>.

#### **5.4.1 Bioinitiative Report**

*“Several decades of international scientific research confirm that EMF’s are biologically active in animals and in humans, which could have major public health consequences.”*

Bioinitiative Working Group, Cindy Sage and David O. Carpenter, Editors. Bioinitiative Report: A Rationale for a Biologically based Public Exposure Standard for Electromagnetic Fields (ELF and RF) August 31, 2007.<sup>12</sup>

#### **5.4.2 Public Health Implications of Wireless Technologies**

*“Global exposures to emerging wireless technologies from applications including mobile phones, cordless phones, DECT phones, Wi-Fi, WLAN, WiMAX, wireless internet, baby monitors, and others may present serious public health consequences.”* Sage C. Carpenter DO. 2009. Public Health Implications of Wireless Technologies. Pathophysiology 16 (2009) 233–246

#### **5.4.3 Association Between Exposure to Pulsed Electromagnetic Fields and Cancer**

*“Very fast-changing electromagnetic fields are called short-duration pulsed electromagnetic fields (PEMFs) or high-frequency transient fields. PEMFs are reported to have biological effects including cell proliferation; and also are used in medical treatments (bone healing).”* Armstrong et al PEMF study reports significantly increased risk of lung cancer. B. Armstrong, G. Theriault, P. Guenel, J. Deadman, M. Goldberg, P. Heroux, Association between exposure to pulsed electromagnetic fields and cancer in electrical utility workers in Ontario and Quebec, Canada, and France 1970-1989. Am J Epidemiology 140 (1994) 805-820.

#### **5.4.4 Electromagnetic Pollution From Phone Masts; Effects on Wildlife**

*“Electromagnetic radiation is a form of environmental pollution which may hurt wildlife.” ...“some species that could suffer long-term effects, like reduction of their natural defenses,*

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<sup>12</sup> European Parliament Sept 2008: *“is greatly concerned at the Bio-Initiative international report concerning EMFs, which summarizes over 1500 studies on that topic and which points in its conclusions to the health risks posed by emissions from mobile-telephony devices such as mobile telephones, UMTS, WiFi, WiMax and Bluetooth, and also DECT landline ” “The limits on exposure to electromagnetic fields [EMFs] which have been set for the general public are obsolete.”*  
<http://new.marketwire.com/2.0/release.do?id=901580>.

*deterioration of their health, problems in reproduction and reduction of their useful territory through habitat deterioration.”*  
Balmori, A. 2009. Electromagnetic Pollution from Phone Masts. Effects on Wildlife. Pathophysiology. August 2009; 16(2): 191-199.

#### **5.4.5 Neurobehavioral Effects Among Inhabitants Around Mobile Phone Base Stations**

*“The prevalence of neuropsychiatric complaints as headache (23.5%), memory changes (28.2%), dizziness (18.8%), tremors (9.4%), depressive symptoms (21.7%), and sleep disturbance (23.5%) were significantly higher among exposed inhabitants than controls...”* Neurobehavioral effects among inhabitants around mobile phone base stations; G. Abdel-Rassoul, O. Abou El-Fateh, M. Abou Salem, A. Michael, F. Farahat, M. El-Batanouny and E. Salem.

#### **5.4.6 RF Is Still Under Investigation as a Carcinogen.**

The National Toxicology Program (NTP)<sup>13</sup> and the World Health Organization (WHO) are studying RF as a potential carcinogen. The World Health Organization thirteen country, thirty million dollar study states, *“The INTERPHONE Study, a series of multinational case–control studies set-up to determine whether mobile telephone use increases the risk of cancer and, **specifically, whether the radio- frequency radiation emitted by mobile telephones is carcinogenic, is nearing completion**”*. The October 8 Updated Interphone Study Results<sup>14</sup> found significantly increased risk of glioma (a deadly brain tumor) from RF.

### **5.5 EMF Sensitivity and Other Vulnerable Groups**

EMF sensitivity is also known as electrohypersensitivity, electrosensitivity, electrical sensitivity, and others. It is estimated that 3% of the population has EMF sensitivity and up to 35% have symptoms of EMF sensitivity.<sup>15</sup> Opting out of the Smart Meter program, especially on living and working premises is absolutely essential

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<sup>13</sup> <http://www.niehs.nih.gov/health/docs/cell-phone-fact-sheet.pdf>.

<sup>14</sup> <http://emfsafetynetwork.org/wp-content/uploads/2009/09/INTERPHONEresultsupdate-October-20081.pdf>.

<sup>15</sup> Electromagnetic Hypersensitivity: Biological Effects of Dirty Electricity with Emphasis on Diabetes and Multiple Sclerosis, Dr. Magda Havas, Informa.

because prudent avoidance is the only known relief for health symptoms from EMF sensitivity. Other vulnerable groups include children, pregnant women, seniors, people with medical implants and the immune compromised.

### **5.5.1 Electrohypersensitivity: State-of-the-Art of a Functional Impairment**

*“In summary it is evident from our preliminary data that various alterations are present in the electrohypersensitive persons’ skin. In view of recent epidemiology studies, pointing to a correlation between long-term exposure from power-frequent magnetic fields or microwaves and cancer, our data ought to be taken seriously and analyzed”.* Johansson, O. 2006.

Electrohypersensitivity: State-of-the-Art of a Functional Impairment. Electromagnetic Biology and Medicine. December 2006; 25(4): 245-258.

### **5.5.2 European Parliament EMF Resolution**

The European Parliament EMF Resolution of April 2009 *“calls on member states to follow the example of Sweden to recognize persons that suffer from electrohypersensitivity as being disabled so as to grant them adequate protection as well as equal opportunities”.*<sup>16</sup>

### **5.5.3 US Access Board Recognizes EMF Sensitivity**

*“The Board recognizes that multiple chemical sensitivities and electromagnetic sensitivities may be considered disabilities under the ADA if they so severely impair the neurological, respiratory or other functions of an individual that it substantially limits one or more of the individual's major life activities. The Board plans to closely examine the needs of this population, and undertake activities that address accessibility issues for these individuals.*

*“The Board plans to develop technical assistance materials on best practices for accommodating individuals with multiple chemical sensitivities and electromagnetic sensitivities. The Board also plans to sponsor a project on indoor environmental quality. In this project, the Board will bring together building owners, architects, building product manufacturers, model code and standard-setting organizations, individuals with multiple*

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<sup>16</sup> <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2009-0216+0+DOC+XML+V0//EN>.

*chemical sensitivities and electromagnetic sensitivities, and other individuals. This group will examine building design and construction issues that affect the indoor environment, and develop an action plan that can be used to reduce the level of chemicals and electromagnetic fields in the built environment.”<sup>17</sup>*

#### **5.5.4 Interference with Pacemakers and Other Medical Devices**

The Smart Meter is similar to a cell phone. In doctor's offices and hospitals, they ask you to turn off cell phones because they can interfere with medical implants and instruments. *“FDA's Center for Devices and Radiological Health (CDRH) regulates radiation-emitting electronic products (medical and non-medical) such as lasers, x-ray systems, ultrasound equipment, microwave ovens and color televisions.” “... Radiofrequency energy (RF) from cell phones can interact with some electronic devices.”<sup>18</sup>*

#### **5.5.5 World Health Organization, Children's Health and Environment: A Review of Evidence**

*“Because there are suggestions that RF exposure may be more hazardous for the fetus and child due to their greater susceptibility, prudent avoidance is one approach to keeping children's exposure as low as possible.”*

Children's Health and Environment: A Review of Evidence: A Joint Report from the European Environmental Agency and The World Health Organization (2002) Chapter 13 Electromagnetic Fields. Environmental Issues Report #29.

### **5.6 Significant World Concerns**

There are significant world concerns over the proliferation of RF technologies. Governments, public health and environmental organizations, independent scientists, health advocacy groups, and activists are advocating prudent avoidance and the precautionary principle in response to the proliferation of EMF and RF technologies.

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<sup>17</sup> IEQ Indoor Environmental Quality; a project of the National Institute of Building Sciences (NIBS) with funding support from The Architectural and Transportation Barriers Compliance Board (Access Board) <http://access-board.gov/news/ieq.htm>.

<sup>18</sup> Interference with Pacemakers and Other Medical Devices [www.fda.gov](http://www.fda.gov).

Many more examples and reports of such concerns and statements can be found in Network's compilation of EMF and RF World Concerns Summary.<sup>19</sup>

### **5.6.1 European Parliament EMF Resolution**

In 2009 the European Parliament passed the EMF Resolution calling for caution on the use and expansion of EMF, particularly RF from wireless technologies. *“whereas wireless technology (mobile phones, WiFi/WiMAX, Bluetooth, DECT landline telephones) emits EMFs that may have adverse effects on human health”*<sup>20</sup>

### **5.6.2 Freiburger Appeal**

Since 2002 several thousand doctors have signed the Freiburger appeal. *“One can no longer evade these pulsed microwaves. They heighten the risk of already-present chemical/physical influences, stress the body’s immune system, and can bring the body’s still-functioning regulatory mechanisms to a halt. Pregnant women, children, adolescents, elderly and sick people are especially at risk.”*<sup>21</sup>

### **5.6.3 International Resolutions**

*“The licensing and/or use of Wi-Fi, WIMAX, or any other forms of wireless communications technology, indoors or outdoor, shall preferably not include siting or signal transmission in residences, schools, day-care centers, senior centers, hospitals or any other buildings where people spend considerable time”.*  
Porto Alegre Resolution 2009<sup>22</sup>

### **5.6.4 European Environment Agency (EEA) Statement**

*“There are many examples of the failure to use the precautionary principle in the past, which have resulted in serious and often irreversible damage to health and environments. Appropriate, precautionary and proportionate actions taken now to avoid plausible and potentially serious threats to health from EMF are likely to be seen as prudent and wise from future perspectives. We must remember that precaution is one of the principles of EU*

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<sup>19</sup> <http://emfsafetynetwork.org/?p=116>.

<sup>20</sup> <http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+TA+P6-TA-2009-0216+0+DOC+XML+V0//EN>

<sup>21</sup> <http://www.starweave.com/freiburger/>.

<sup>22</sup> [http://www.icems.eu/docs/resolutions/Porto\\_Alegre\\_Resolution.pdf](http://www.icems.eu/docs/resolutions/Porto_Alegre_Resolution.pdf).

*environmental policy,*” says Professor Jacqueline McGlade, Executive Director of the EEA.<sup>23</sup>

## **5.7 Recent Expressions of Community Concern**

Recent expressions of community concern include more than 1,900 signatures on a Sonoma County petition<sup>24</sup> that requests local authorities to investigate the potential health risks of Smart Meters by holding public hearings. Three similar petitions have been started in cooperation with Network in Santa Cruz, Alameda and San Francisco Counties.

Public hearings on Smart Meters in the Cities of Sebastopol, Cotati, and area of Camp Meeker resulted in city council and board letters to the Commission requesting deferment or moratorium from the PG&E Smart Meter program to allow time for a health and environmental impacts review. Sonoma County Supervisor Efren Carillo sent a letter to the Commission requesting deferment from Smart Meter installation to allow time for a public hearing to convene in late April.<sup>25</sup>

## **5.8 Numerous Smart Meter Complaints**

Media reviews and customers report numerous complaints prior to or following installation of Smart Meters for a variety of reasons, including (1) health and environmental impacts, (2) reliability, (3) interference, (4) privacy, (5) security risks, and (6) fire hazards. PG&E’s recent filing<sup>26</sup> reports a failure rate of more than 1 out of 100 electric meters and confirms safety and interference hazards with customer electronics. Many more examples can be found on Network’s website.<sup>27</sup>

*(1) PG&E’s plan to install wireless meters on area homes has some Sebastopol residents calling for city leaders to reject the plan because they fear the meters could*

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<sup>23</sup> EEA: [Radiation Risk from Everyday Devices Assessed](http://www.eea.europa.eu/highlights/radiation-risk-from-everyday-devices-assessed); <http://www.eea.europa.eu/highlights/radiation-risk-from-everyday-devices-assessed>.

<sup>24</sup> Petition signatures gathered both on paper and online: [http://www.PetitionOnline.com/mod\\_perl/signed.cgi?EMFsafe1](http://www.PetitionOnline.com/mod_perl/signed.cgi?EMFsafe1).

<sup>25</sup> [http://emfsafetynetwork.org/?page\\_id=872](http://emfsafetynetwork.org/?page_id=872).

<sup>26</sup> Advanced Metering Infrastructure; January 2010 Semi-Annual Assessment Report and SmartMeter™ Program Quarterly Report (Updated), Pacific Gas and Electric Company.

*impact their health. Sebastopol residents lash out against PG&E plan for 'smart meters'<sup>28</sup>*

(2) *"I live in Walnut Creek, My 11/9/09 bill: \$168.03, my 12/9/09 bill: \$366.20, my 1/11/10 bill: \$1010.09, my 2/10/10 bill: \$1053.23. My smart meter was installed sometime in Dec. 09. PG&E says its my fault. I am seeing others have had the same problem. Just wanted to weigh in on this issue. I am wanting to sue. Price gouging. This is WRONG."*

(3) *"My grandparents started having problems with their (computerized) ceiling fans, and suspected that it had to do with their new smart meter. They would go haywire, turning on and off, reversing, and even turning on their lights..."<sup>29</sup>*

(4) *"Although the Smart Grid promises to help meet goals of energy efficiency and renewability, incorporating IT into the electric grid poses new and substantial risks to individual privacy." Legal issues in Energy Policies and Climate Change, talk by Professor of Law, Deirdre Mulligan, April 2, 2010. UC Berkeley.<sup>30</sup>*

(5) *"Computer-security researchers say new "smart" meters that are designed to help deliver electricity more efficiently also have flaws that could let hackers tamper with the power grid in previously impossible ways." 'Smart' Meters Have Security Holes<sup>31</sup>*

(6) *"Some employees at Henry M.M. Engines said their Smart Meter caught fire, which sparked concern and questioned the safety of these new meters." Smart Meter Blows Up At Business<sup>32</sup>*

Rule 16.4(b) requires that allegations of new facts must be supported by a declaration or affidavit. Network is aware of much documentary evidence regarding health, environmental, and safety impacts of EMF and RF, EMF sensitivity, and

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<sup>27</sup> [http://emfsafetynetwork.org/?page\\_id=872](http://emfsafetynetwork.org/?page_id=872).

<sup>28</sup> <http://www.pressdemocrat.com/article/20100203/ARTICLES/100209872>.

<sup>29</sup> [http://emfsafetynetwork.org/?page\\_id=1223](http://emfsafetynetwork.org/?page_id=1223).

<sup>30</sup> <http://www.citris-uc.org/events/i4e-Apr02>.

<sup>31</sup> <http://www.pressdemocrat.com/article/20100327/BUSINESS/3271040/1350?p=all&tc=pgall>.

<sup>32</sup> [http://www.turnto23.com/north\\_river\\_county/21601647/detail.html](http://www.turnto23.com/north_river_county/21601647/detail.html).

community concern about these issues. Network also knows many PG&E customers, including doctors, EMF electricians, and internet security professionals, are willing to testify to their personal experiences with RF technologies. The scope of such evidence and testimony is summarized in the attached Declaration of Sandra Maurer.

## **6. Conclusion**

The Commission overlooked important RF health, environmental, and safety impacts when it granted PG&E permission to deploy Smart Meters. The Commission should re-open its review of Smart Meters and require PG&E to demonstrate that the Smart Meter program is consistent with delivery of safe, reliable gas and electric service at reasonable rates.

\* \* \*

Dated April 6, 2010, at Sebastopol, California.

/s/

Sandra Maurer, Founder  
EMF Safety Network  
PO Box 1016  
Sebastopol CA 95473  
(707) 829-9403  
sandi@emfsafetynetwork.org

## DECLARATION OF SANDRA MAURER

I, Sandra Maurer, declare as follows:

1. I reside in Sebastopol, California. My mailing address is 200 Frankel Lane, Sebastopol, California 95472.
2. I am a residential electric and gas customer of Pacific Gas and Electric Company (PG&E). I am aware that PG&E is currently installing Advanced Metering Infrastructure gas and electric meters, known as Smart Meters, in Sonoma County and throughout PG&E's service territory.
3. I am the founder of the EMF Safety Network (Network), which is a coalition of PG&E ratepayers, business and property owners, and concerned citizens in northern California who address health, environmental, and safety impacts associated with EMF and RF technologies.
4. Network is aware of many scientific studies that address health, environmental, and safety impacts of EMF and RF technologies. In my opinion, the documents are relevant to the PG&E Smart Meter program and to community concerns about the Smart Meter program.
5. Network is in possession of a petition signed by more than 1,900 residents and visitors to Sonoma County who are concerned about the health risks associated with PG&E's Smart Meter program. Three similar petitions are circulating in Santa Cruz, Alameda and San Francisco Counties. The petitions ask local authorities to hold public hearings to review RF health risks, request PG&E to submit a characterization study of the Smart Meter system, allow customers to opt out, and impose a moratorium on new installations to allow time for public review. In my opinion, the petitions to local authorities are an expression of widespread community concern about Smart Meters.
6. Network is aware of many media reports of consumer dissatisfaction and online complaints about Smart Meters for numerous reasons.
7. Network members support Commission review of Network's concerns.

Under penalty of perjury, I declare that the facts set forth above are true and correct to the best of my knowledge.

Dated April 6, 2010, at Sebastopol, California.

/s/

Sandra Maurer

## VERIFICATION

I, Sandra Maurer, represent EMF Safety Network and am authorized to make this verification on the organization's behalf. The statements in the foregoing document are true to the best of my knowledge, except for those matters that are stated on information and belief, and as to those matters I believe them to be true.

I declare under penalty of perjury that the foregoing is true and correct.

Dated April 6, 2010, at Sebastopol, California.

*/s/*

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Sandra Maurer, Founder  
EMF Safety Network  
PO Box 1016  
Sebastopol CA 95473  
(707) 829-9403  
sandi@emfsafetynetwork.org

**CERTIFICATE OF SERVICE**

The Commission has not created a service list for this application. As a courtesy to interested parties, I certify that I have by electronic mail this day served a true copy of the original attached "Application of EMF Safety Network for Modification of D.06-07-027 and D.09-03-026" on all parties of record in A.05-06-028 and A.07-12-009 or their attorneys of record. I will mail paper copies of the pleading to Assigned Commissioner Michael Peevey, Administrative Law Judge Douglas Long, and Administrative Law Judge David Fukutome.

Dated April 6, 2010, at Sebastopol, California.

/s/

\_\_\_\_\_  
Sandra Maurer