BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking on the Commission's own motion to consider alternative-fueled vehicle tariffs, infrastructure and policies to support California's greenhouse gas emissions reduction goals.	FILED PUBLIC UTILITIES COMMISSION AUGUST 20, 2009 SAN FRANCISCO, CALIFORNIA RULEMAKING 09-08-009

ORDER INSTITUTING RULEMAKING TO CONSIDER ALTERNATIVE-FUELED VEHICLE TARIFFS, INFRASTRUCTURE AND POLICIES TO SUPPORT CALIFORNIA'S GREENHOUSE GAS EMISSIONS REDUCTIONS GOALS

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1. Summary

The Commission recognizes that many automakers will be introducing to California roadways electric charged vehicles in the next one to five years. [1] As a result of this market development, we are initiating this rulemaking to consider the impacts electric vehicles may have on our State's electric infrastructure and what actions this Commission should take. We must ensure that the charging of these vehicles does not have adverse impacts on our electric system in terms of reliability, while at the same time recognizing the benefits of these vehicles in achieving California's climate change goals.

This rulemaking seeks to consider tariffs, infrastructure and policies needed for California investor-owned electric utilities to ready the electricity system in a consistent, near-term manner for the projected statewide market growth of light-duty passenger plug-in hybrid electric vehicles (PHEV) and battery electric vehicles (BEV) throughout California. Other electric vehicle classes may be considered pending stakeholder input during this proceeding. We may also consider issues associated with natural gas vehicle market growth and any needed regulatory changes.

[1] One source has reported that 70% of automakers by market share will introduce electric vehicles in the near future. Pacific Gas and Electric Company, "The Perfect Storm for Electric Vehicle Market Growth in California," Commission Smart Grid Workshop, July 15, 2009, http://www.cpuc.ca.gov/NR/rdonlyres/3916875A-910E-40DB-A931-5B4BF37F1F55/0/SaulZambranoPGE.pdf

Our immediate goal is to review any current electric vehicle tariff schedules and facilitate electric vehicle charging infrastructure in the near-term to support a successful transition of a portion of the gasoline-powered vehicle fleet in California to electric vehicles. We intend to develop consistent statewide policies and standards to guide and encourage development of electric vehicle metering, home electric vehicle charging infrastructure, commercial and public charging infrastructure, tariff schedules, and, if advisable, incentive programs. Our efforts will be undertaken consistent with Commission and State policy goals, including reducing greenhouse gas emissions pursuant to Assembly Bill (AB) 32,[2] reducing petroleum consumption, improving and optimizing electricity system asset utilization, expanding the use of renewable energy as a charging fuel for electric vehicles, and ensuring electric service reliability.

We intend to collaborate with other governmental entities with interests in this area and encourage their input and participation. We also intend to coordinate consideration of tariffs, infrastructure, and policy with issues considered in the ongoing Commission Smart Grid proceeding (Rulemaking (R.) 08-12-009). In the Smart Grid proceeding, we are considering issues associated with communication between the vehicle and utility or electric vehicle

[2] Transportation sources accounted for approximately 29% of total greenhouse gas emissions in the United States in 2006. Transportation is the fastest-growing source of greenhouse gas emissions in the United States, accounting for 47% of the net increase in total United States emissions since 1990. Transportation is also the largest end-use source of carbon dioxide (CO2), which is the most prevalent greenhouse gas. These estimates of transportation greenhouse gas emissions do not include emissions from additional lifecycle processes, such as the extraction and refining of fuel and the manufacture of vehicles, which are also a significant source of domestic and international greenhouse gas emissions. Source: United States Environmental Protection Agency, http://www.epa.gov/OMS/climate/index.htm

service provider.[3] As an example of the level of coordination we envision, if the Smart Grid proceeding develops communication guidelines, we may apply them to electric vehicle charging infrastructure installation guidelines developed here.

2. Legal Background

The Commission exercises jurisdiction over the activities of public utilities, including those that are electrical corporations. Pub. Util. Code § 216 defines public utility as ". . . every … gas corporation, electrical corporation, telephone corporation, … where the service is performed for, or the commodity is delivered to, the public or any portion thereof." Subsection (b) of this code section goes on to provide: "Whenever any common carrier, toll bridge corporation, pipeline corporation, gas corporation, electrical corporation, telephone corporation, telegraph corporation, water corporation, sewer system corporation, or heat corporation performs a service for, or delivers a commodity to, the public or any portion thereof for which any compensation or payment whatsoever is received, that common carrier, toll bridge corporation, pipeline corporation, gas corporation, electrical corporation, telephone corporation, telegraph corporation, water corporation, sewer system corporation, or heat corporation, is a public utility subject to the jurisdiction, control, and regulation of the commission and the provisions of this part."

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[3] Electric vehicle service providers, also known as electric vehicle service suppliers, are defined by the California Air Resources Board Low Carbon Fuel Standard to mean any person or entity that provides bundled charging infrastructure and other electric transportation services and provides access to vehicle charging to electric vehicle customers. California Air Resources Board, "Proposed Regulation to Implement the Low Carbon Fuel Standard Volume 1, Staff Report: Initial Statement of Reasons" Appendix A at p. A-23/397, March 5, 2009. http://www.arb.ca.gov/fuels/lcfs/030409lcfs_isor_vol1.pdf

Footnote continued on next page

Furthermore, Pub. Util. Code § 218 defines an electrical corporation as ". . . every corporation or person owning, controlling, operating, or managing any electric plant for compensation within this state, except where electricity is generated on or distributed by the producer through private property solely for its own use or the use of its tenants and not for sale or transmission to others."

In this rulemaking, we will address the scope and role of the Commission's regulatory authority over electric vehicle service providers, including third-party resellers providing electricity to electric vehicles, including the question of whether the Commission has jurisdiction over such entities. If so, we will consider the appropriate level of regulatory oversight, including whether third-party resellers providing electricity to electric vehicles should be exempted from our regulation as an electric utility, via a statutory change if necessary.[4]

Additionally, the California Air Resources Board's Low Carbon Fuel Standard,[5] Section 95484(a)(6), applies to regulated parties for electricity fuel. That section of the Low Carbon Fuel Standard identifies load serving entities, electric vehicle service providers, electric vehicle charging equipment owners, and electric vehicle owners as potential regulated parties for electricity fuel. The California Air Resources Board's Resolution 09-31[6] adopting the Low Carbon

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[4] The applicability of § 201 of the Federal Power Act, 16 USC § 824, and Public Utility Regulatory Policies Act of 1978 ("PURPA"), 16 USC § 823, *et seq*. to possible "wholesale generation" related to electric vehicle infrastructure is being addressed in R.08-08-009, the current Renewables Portfolio Standard rulemaking.

[5] The California Air Resources Board adopted the Low Carbon Fuel Standard on April 23, 2009. This regulation is effective January 1, 2010.

[6] Resolution 09-31, Agenda Item No. 09-4-4, adopted April 23, 2009, http://www.arb.ca.gov/fuels/lcfs/lcfs_resolution0931.pdf.

Fuel Standard directs the "Executive Officer [of the Air Resources Board] to continue to work with the Commission, electric utilities, oil refiners, and other stakeholders to review the provisions applicable to electricity and propose amendments, if appropriate, to the regulation by December 2009." In this rulemaking, we will consider possible recommendations to the California Air Resources Board regarding the Low Carbon Fuel Standard.

In this rulemaking, we may also explore how certain existing laws, codified in 2002 (commonly referred to as "AB 1X"),[7] can accommodate the expected increase in electrical usage when residential customers charge electric vehicles on their residential electric accounts. AB 1X requires utilities to provide residential customers with up to 130% of the baseline quantities of electricity in existence at the time AB 1X was enacted in 2002, at rates no greater than those in effect at the time of that enactment. Under the current rate structure, if the additional electricity use required for an electric vehicle were billed on the existing residential account, it would, in many cases, be at the highest residential rate, which could have the practical effect of discouraging residential hook-ups for electric vehicle recharging. A possible solution is the use of a separate electric vehicle tariff and/or the use of separate time-of-use (TOU) meters for vehicle charging. Some customers, particularly those who have residential photovoltaic installations, may want to recharge their vehicles on a net-metered basis and

[7] See Water Code § 80110, added by Stats. 2001-2002, 1st Ex.Sess., c. 4 (A.B.1), § 3, eff. February 1, 2001, an act to amend Section 366.5 of, and to add section 360.5 to, and to repeal section 355.1 of, the Public Utilities Code, and to add Division 27 (commencing with section 80000) to the Water Code, relating to electric power.

may not want a separate vehicle recharging account or separate meter. We intend to address these issues in this rulemaking.

3. Technical Background

The purpose of this section is to provide charging infrastructure, distribution system impact, and tariff–related information relevant to this proceeding. A number of technical issues are presented to provide background for purposes of answering charging option questions presented in section 5 and as a starting point for discussion among parties.

The technical information provided here is in addition to the information provided in the Commission's Policy and Planning Division's May 22, 2009 white paper.[8] This white paper outlines electric vehicle drive train options, battery capacity options, battery chemistry options, and related infrastructure support requirements that distinguish PHEVs from BEVs. It also includes a limited analysis of the impact of a given vehicle population scenario on total energy demand, peak load, and net greenhouse gas emissions. Stakeholders submitted comments to the Policy and Planning Division on this white paper, which served to further clarify the technical information in the white paper.[9]

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[8] See Section 7 herein, regarding Commission Staff White Paper and comment incorporation into the rulemaking's evidentiary record. Commission Staff White Paper, *Light-duty Vehicle Electrification in California: Potential Barriers and Opportunities,* Commission Policy and Planning Division, (May 22, 2009). http://www.cpuc.ca.gov/NR/rdonlyres/AD8A4A5E-6ED9-4493-BDB6-326AB86A028E/0/CPUCPPDElectricVehicleWhitePaper2.pdf.

[9] Stakeholder comments on Commission staff's white paper are available online: http://www.cpuc.ca.gov/PUC/energy/ev_comments.htm.

3.1. Vehicle Connection to Electric Vehicle Supply Equipment Options

This rulemaking invites academic, utility industry, automotive industry, local governments, and consumer comment on PHEV and BEV charging preferences, in addition to inviting stakeholder comment on applicable charging infrastructure codes and standards. We briefly explain the technical aspects of charging electric vehicles to give context to the questions that later follow.

A factory-model PHEV or BEV houses a charger that converts alternating current (AC) from an electrical circuit into direct current (DC) and regulates the current voltage directed to the on-board battery for storage.[10]

The electric vehicle charge time and Electric Vehicle Service Equipment (EVSE)[11] sub-circuit size determine the amount of energy (kWh) drawn per charge. As the electric vehicle market matures, electric vehicles may demonstrate improved energy conversion efficiencies, depending on factors including vehicle weight, drive train options, and driving conditions. Like

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[10] A typical on-board electric vehicle charger converts AC to DC at 3-5 kilowatts (kW). A common on-board battery capacity size for a PHEV is 8-15 kilowatt-hours (kWh), while a typical battery capacity size for a BEV is 25-33 kWh. Battery capacity is influenced by the amount of "usable" battery capacity specified under warranty. Battery capacity may decline over time and under certain climate conditions, although manufacturers are working on improving lifespan over deep-cycle testing. The smaller battery size in the PHEV is due to the vehicle's dual fuel sources, electricity and gasoline, natural gas, biofuels, or other alternative fuel options. The BEV relies solely on stored power in the battery.

[11] The EVSE premises unit houses circuit insulation, fault (fuse), Ground Fault Circuit Interrupt (GFCI), a pilot circuit to activate charging and define the energy per charge, and a safety switch to protect against "hot" vehicle decoupling. All components of the EVSE premises unit and EVSE installation requirements are subject to the Society of Automotive Engineers (SAE) J1772 Standard, the United Laboratories (UL) certification processes, the National Electric Code (NEC) and California Electric Codes (CEC).

household electric appliances, higher efficiency electric vehicles will use less energy (kWh) to provide the same energy service.

The difference between the vehicle battery state of charge and battery capacity determines energy needed per charge.[12] To draw power from an electricity sub-circuit at the residence or a commercial or public charging facility, the electric vehicle can either (1) use a mobile cordset EVSE to connect to a dedicated wall plug and a 120 Volt (V) sub-circuit (1.4 kW, 15 Amps (A) or 20 A), or (2) connect to a cord attached to a permanently mounted EVSE premise unit connected to a 240V sub-circuit (typically, 3.3 kW - 6.6 kW, up to 19.2 kW, 80 A).[13] A DC charging option includes an additional charger in the EVSE that bypasses the vehicle charger for higher power distribution (for example, 120 kW, up to 800 kW).[14]

A second electric meter or sub-meter needed to separate vehicle load from the normal residential load is external to the vehicle and to the EVSE premises unit. An external communication bridging device is one of several options that could transmit homeowner and/or utility program messages through the

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[12] This assumes the vehicle owner charges to full capacity from the battery state of charge. The state of charge is a function of vehicle miles driven in all electric range (i.e., total energy consumed in all-electric range), driving conditions, and vehicle efficiency (miles/kWh). A minimum state of charge in a PHEV is the point at which the vehicle switches from charge depleting to charge sustaining mode.

[13] Stakeholders note mismatches between the vehicle onboard chargers and available energy are likely. The lesser of the "available line current" or "charger size" determines the power that is delivered and used. Certain battery size, voltage, and charging level data is from Scholer, Rich – J2293 Task Force, "Messages and Categories" presentation, Ford Motors.

[14] The plug between the electric vehicle and the electricity source uses a SAEJ1772 EVSE plug standard which is a conductive 5-pin coupler.

Advanced Meter Initiative (AMI) meter and a communication platform to the uniquely identified vehicle. This rulemaking may explore whether the interface between the utility and the electric vehicle should include communication signals that include (but are not limited to) utility time variant pricing signals, demand response signals, and voltage ramping and regulation signals.

A mix of charging level options at standardized charging facilities (standard 120V (Level 1), 240V (Level 2) and DC charging options) will likely be required to support a mass electric vehicle market.[15] Many electric vehicle drivers may prefer Level 2 off-peak charging in order to charge larger BEV batteries within a reasonable time and expedite smaller PHEV battery charging. However, Level 1 charging is as ubiquitous as a standard 120V outlet. Level 1 and Level 2 charging at residential EVSE facilitates off-peak charging when electricity demand, driving demand, and electricity cost of service are low. Night time vehicle charging is convenient for a homeowner and has the potential to integrate increased levels of intermittent off-peak wind energy, flatten the electricity system load curve, and realize generation, transmission, and distribution system efficiencies.

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[15] The SAE J 1772 documents classify 120V and 240V charging options as Level 1 charging and Level 2 charging, respectively. Source: Scholer, Rich, http://www.cpuc.ca.gov/NR/rdonlyres/851ED8D2-7E45-4964-989E-6FC30F4DC265/0/RichScholerFord.pdf. PHEV and BEV owners may demand a range of charging facility options depending on vehicle drive type, range limitations for all electric range, driving patterns, charging time of day preference, total charge time preference, and preferred primary charging location.

However, some drivers may prefer daytime opportunistic charging at a residential, commercial, or public charging facility.[16] Daytime charging may be necessary to make electricity refueling as convenient as gasoline refueling, and may be a requirement for a mass electric vehicle market. The potential adverse impact of daytime charging, however, is that if it occurs during peak load time (approximately noon to 7:00 p.m.), this could have a negative impact on the grid, causing more expensive and polluting peak generation units to operate.

This rulemaking will also explore centralized charging as a potential charging option to complement decentralized residential charging. DC charging may offer a charge rate adequate to enable a geographically centralized electricity refueling model similar to the gasoline filling station model for conventional vehicles. Replaceable battery swapping stations located in urban areas, exurban areas, and along highways are another means of making electricity refueling time and location similar to the gasoline filling station model.[17]

Another technical issue relates to the fact that charging facilities will be located in multiple utility service territories, which may require an entity/entities (e.g., electric utilities, electric vehicle service providers, and/or

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[16] The cost of higher incremental greenhouse gas emissions associated with "peaker" power plants would be reflected through the price per ton of carbon dioxide equivalent as determined by the carbon market. As an alternative to daytime charging, drivers may participate in demand response emergency load shedding programs during high load hours to avoid adding to on-peak demand.

[17] Better Place is an electric vehicle service provider company proposing a battery swap facility option. *See* Becker, Thomas. "Electric vehicles in the United States: A new model with forecasts to 2030," Center for Entrepreneurship and Technology, University of California at Berkeley, July 2009, http://cet.berkeley.edu/dl/CET_Technical_Brief_Economic.pdf.

clearing houses) to establish an electric vehicle usage billing system. This rulemaking may look at issues relating to the necessity of such a system to accurately track electricity fuel consumption to apply utility tariffs and track net greenhouse gas emissions reductions. A billing system may be preferable to a uniform statewide electric vehicle tariff; stakeholders note that utility tariffs are unique because of service cost differences due to geographic and regulatory factors.[18]

We note that early PHEV consumer behavioral research indicates after-market converted-PHEV drivers prefer charging at multiple times and locations, including daytime charging.[19] Again, this rulemaking is an opportunity to invite charging behavior research findings to analyze infrastructure performance requirements. We also welcome electric vehicle user input via their representative associations.

3.2. Potential Near-Term Electrical Distribution System Impacts

This rulemaking is also an opportunity to examine system-dependent analyses of transformer stress due to localized electric vehicle load, and discuss whether cost increases due to such load should be incorporated into utility distribution maintenance budgets in general rate cases or other cost of service proceedings. It is also an opportunity to assess demand response load

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[18] Pacific Gas and Electric Company, "Comments of Pacific Gas and Electric Company on CPUC Policy and Planning Division White Paper," July 1, 2009, p. 5, http://www.cpuc.ca.gov/NR/rdonlyres/BE381C44-94FC-46BC-BDBE-CDE00D9DE05F/0/PGECommentsPEVWhitePaper.pdf.

[19] Kurrani, Heffner, Turrentine, "Driving Plug-In Hybrid Electric Vehicles: Reports from U.S. Drivers of HEVs converted to PHEVs, circa 2006-07," Institute of Transportation Studies, University of California at Davis, 2007, p. 17.

management programs, tariffs, and other technologies that may be of use to avoid acute distribution system impacts. In the long term, pending electric vehicle market commercialization, other system impact costs may include transmission line upgrades and total energy procurement attributable to electric vehicle usage.

In our July 15, 2009 electric vehicle workshop in R.08-12-009, we were warned that distribution system impacts, more so than transmission and generation system impacts, may arise in the early electric vehicle market. There is some evidence that in certain neighborhoods, clusters of early adopters of electric vehicles exist. Under certain charging voltage and timing assumptions, an average of less than one PHEV per household could increase asset overloading on the neighborhood transformer.[20] A commonly used 25 kilovolt-ampere (kVA) neighborhood transformer serves the typical household load for five to seven homes. Level 2 charging (for example, at 6.6 kW) for a BEV can increase the load served by the transformer by the equivalent of an additional household load; a PHEV charging at 120V (1.4 kW) is the equivalent of a third of a household load. DC charging, if as ubiquitous and used as often as a gasoline filling station, may place acute stress on multiple local circuits and transformers. Distribution system stress is particularly of concern if customers charge when they arrive home after work when the transformer

[20] Alexander, Marcus, Electric Power Research Institute (EPRI), "Effects of electric transportation on the electricity grid," (July 15, 2009), R.08-12-009 Presentation to Commission Smart Grid proceeding Workshop 4, http://www.cpuc.ca.gov/NR/rdonlyres/5F5E1729-1688-48C0-8A5B-FD5B47A161DA/0/CPUCpresentationMarcusAlexander2009_07_15.pdf.

would otherwise cool down with declining household evening load.[21] Consequently, vehicle charging level and charging timing is relevant to the rate of transformer capacity and transformer aging. For electric reliability purposes, this Commission intends to address this important issue to see how to encourage sequential charging during hours that will not adversely impact local circuits and transformers.

4. Tariff-Related Background

Quantifying the social benefits and system costs associated with electric vehicles could assist in the development of modified electric vehicle tariffs that reflect related costs and benefits. In Decision 08-07-045, the Commission endorsed this approach in its rate design guidance by determining that tariff rates generally should be based on marginal cost and incorporate the cost reductions created by users of the tariff. The Commission will explore in this proceeding how billing components can be appropriately assigned to electric vehicles in order to reflect these costs and benefits. Electric vehicles could substantially increase the total load served by utilities, providing an opportunity to spread the cost of fixed, non-generation expenses over a larger load. Electric vehicle load, if directed off-peak, may flatten the electric system load shape, which could reduce the need for costly peaking generation, and avoid generation shut-down and start-up costs. The Commission seeks to better understand these

[21] EPRI notes "it is possible that in some neighborhoods 2 or 3 PHEVs per household could be present even in the near-term market, which would shorten the transformer life to 1/10th of its expected value if high rate charging was used," EPRI, "Re: Comments from EPRI on the Commission Staff's White Paper," (July 1, 2009), p. 4, http://www.cpuc.ca.gov/NR/rdonlyres/4EFB4601-CDC7-45E3-B9F0-F3AA5E5D119F/0/EPRICommentsonCPUCElectrificationWhitePaper7109.pdf.

issues. In addition, this rulemaking will also consider the applicability of program expenses included in electricity rates, such as the expenses associated with the Public Purpose Program, which is governed, in part, by Pub. Util. Code § 399.8.

In this proceeding, the Commission also will explore the impact of the electric vehicle rate structure on charging behavior. Large increases in charging during the daytime could increase utility procurement costs and reduce the carbon emission reductions associated with electric vehicle use. Rate design could potentially discourage daytime charging by establishing high daytime rates that reflect the marginal cost of increasing load.

Likewise, an electric vehicle tariff can encourage charging during non-peak hours by establishing rates that reflect the lower procurement costs during these periods. Residential customers that recharge an electric vehicle through their household meter would likely face steep electricity rates to fuel their vehicle, as the current increasing block tariffs result in high electricity rates for adding load. Modifications to block tariffs, such as increasing the baseline quantity assigned to electric vehicle-owning households or the use of a separate meter may be considered to align fueling costs with the social and environmental benefits of electric vehicles. The Commission may also consider additional rate incentives for households owning both distributed generation and electric vehicles, as these households provide unique load benefits that are not captured in existing tariff schedules.

These same tariff design issues will also be addressed for electric vehicle service providers. The Commission may address how tariffs should reflect the presence of third-party charging entities, among other issues. As an example, some such entities may currently be served under existing commercial,

residential and street lighting rates. These rate schedules were not necessarily designed to serve this type of load, especially if usage results in large load increases assigned to these tariffs. The Commission intends to take a fresh look at the needs of third party charging entities, recognizing their unique and innovative role in encouraging electric vehicles.

5. Preliminary Scoping Memo

The general scope of this proceeding is to address the issues delineated below. To the extent the background legal, technical and tariff sections discuss scope, these sections are incorporated into the preliminary scoping memo by reference.

Within the scope of this proceeding, we seek to achieve the following:

- Determine how the Commission should assess and assign the costs and benefits of electric vehicle charging infrastructure expenditures and related electricity system investments;

- Consider the principles and criteria that should guide the Commission's policies regarding standardized and expedited residential meter installation,[22] EVSE,[23] EVSE meters, and related charging infrastructure investments;

- Consider the principles and criteria that should guide the Commission's policies regarding standardized commercial and public meters, EVSE, and related charging infrastructure investments;

[22] "Meters" may include dual meter adapters, sub-meters, or second meters to measure electric vehicle electricity usage.

[23] See fn. 11.

- Consider the regulatory models and entities that facilitate the anticipated environmental and electricity system benefits associated with alternative-fueled vehicle market growth, the relationship between regulated and non-regulated entities in the residential market, and the legislative modifications that may be required, if any, to facilitate this relationship;

- Consider principles and criteria to guide the Commission's authorization of scaled-up programs for investor-owned utilities designed to build awareness in PHEV and BEV owners of tariff options, EVSE installation processes, safe PHEV and BEV charging, and optimal PHEV and BEV charging to balance driver and grid benefits;

- Consider the potential near-term impacts of PHEV and BEV charging on the local distribution system, and how to ensure electricity reliability while supporting PHEV and BEV load;

- Consider how PHEV and BEV policies and tariffs impact natural gas vehicle policies and tariffs, and how the Commission's policies can be inclusive of both markets without "picking a technology winner";

- Consider how PHEV- and BEV-specific demand response programs may mitigate on-peak PHEV and BEV load impacts on the electric distribution system;

- Consider a default tariff requirement for time variant PHEV and BEV tariffs, and statutory changes, if any, that may be required to allow such tariffs;

- Consider expanding the applicability of utility residential time variant PHEV and BEV rates to commercial and public charging

facilities, low-speed vehicle[24] PHEVs and BEVs, and other electric-drive vehicle classes;

- Consider modifications to existing TOU rates for PHEV and BEV to make off-peak recharging more economically attractive at residential locations;

- Consider dynamic rate design options, vehicle charging regulations, and policy adjustments to incorporate PHEV and BEV charging with intermittent renewable energy supply, including, but not limited to, photovoltaic (PV) arrays over residential and commercial charging stations and off-peak charging to take advantage of overnight wind resources expected in the utility resource portfolio;

- Consider relevant pending state and federal regulations and legislation, including the California Air Resources Board Low Carbon Fuel Standard, California Senate Bill 626 (Kehoe), and the American Clean Energy and Security Act of 2009;[25]

- Consider standards and protocols needed for the deployment of "smart" PHEV and BEV charging infrastructure in California

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[24] A "Neighborhood Electric Vehicle" (NEV) is defined as a "Low Speed Vehicle" (LSV) by the National Highway Traffic Safety Administration's (NHTSA) Federal Motor Vehicle Safety Standard (FMVSS) No. 500. Per FMVSS No. 500, http://avt.inel.gov/nev.html

[25] California Air Resources Board, "Proposed Regulation to Implement the Low Carbon Fuel Standard Volume 1, Staff Report: Initial Statement of Reasons" Appendix A at p. A-23/397, March 5, 2009. See, also, fn. 5. http://www.arb.ca.gov/fuels/lcfs/030409lcfs_isor_vol1.pdf; Senator Kehoe, SB 626, February 27, 2009, (http://info.sen.ca.gov/pub/09-10/bill/sen/sb_0601-0650/sb_626_bill_20090227_introduced.pdf); American Clean Energy and Security Act of 2009, § 121 (a) amendment of § 111 (d) of the Public Utilities Regulatory Policy Act of 1978 (16 U.S.C. 2621(d)) http://frwebgate.access.gpo.gov/cgi-bin/getdoc.cgi?dbname=111_cong_reports&docid=f:hr137.111.pdf.

and the Commission's role, if any, in encouraging related standards; and

- Consider other issues suggested by stakeholders which we believe are needed to guide Commission policy related to PHEVs and BEVs.

5.1. Questions

We pose the following questions for all interested parties to address in comments filed in this proceeding. We also invite parties to identify additional issues that the Commission should consider in this rulemaking. Parties should identify the question to which they are responding.

Residential Charging Infrastructure and Policy

1. What types of residential metering arrangements are appropriate for PHEVs and BEVs and why? Should the Commission require a particular metering arrangement, or should it allow more flexibility in metering arrangements by investor-owned utilities or others? If so, why?

2. How will electric vehicle meters or sub-meters and EVSE's interact with the advanced meters currently being installed across the service territories of investor-owned utilities? What policies does the Commission need to consider concerning any such interaction?

3. What kinds of equipment and electrical improvements will typically be needed to support residential charging for PHEVs and BEVs, e.g., EVSE's, metering, electrical system upgrades? Who should pay for residential equipment and improvements required to support PHEVs and BEVs, and why?

4. What policies should the Commission adopt to encourage competition and innovation in the market for residential infrastructure development for PHEV and BEVs?

5. Should the Commission consider allowing utilities to invest in and rate-base residential electric vehicle charging in order to encourage and support early adoption of PHEVs and BEVs? If so, what components of the infrastructure should the utility be authorized to invest in, e.g., wiring upgrades, EVSE? Should utility investment continue once the market matures? What impact might this have on the competitive marketplace relating to electric vehicle charging infrastructure by non-utility entities?[26]

6. If a utility proposes to own customer-premises EVSE's, how will the Commission ensure that near-term EVSE and metering capital investments are interoperable with future generations of PHEV and BEV technology? [27]

7. What approaches are there to provide PHEV and BEV charging for owners who do not have regular access to a garage for residential recharging (including single family dwellings and multiple dwelling units (MDUs) like apartments, condominiums, and duplexes)? What regulatory issues does the Commission need to address relative to infrastructure for such residents?

8. How can the Commission, in coordination with utilities, relevant state agencies, federal authorities, local governments, and other entities, streamline EVSE permitting, installation, and approval processes from the time of PHEV and BEV purchase to EVSE activation? What jurisdictional barriers should be assessed to achieve a streamlined permitting, installation, and activation process for residential EVSE?

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[26] Please define a "mature market" in your response. For example, "mass-market" could mean electric vehicles sold after 100,000 or another milestone figure of electric vehicles are registered in California markets.

[27] For example, automakers currently exclude a second meter or sub-meter from planned factory-production PHEV and BEV models. Future vehicle designs may include an on-board meter with the currently available on-board vehicle charger and communication hardware and software.

Commercial and Public Charging Infrastructure and Policy

9. How should electricity used for PHEVs and BEVs be metered at commercial and public charging facilities?

10. Who should pay for commercial and public meters, EVSE, and related upgrades?

11. How should the Commission ensure that commercial and public charging facilities are cost-effective, openly-accessible, and interoperable with a Smart Grid system?[28]

12. Are additional building codes needed for residential, commercial and public charging facilities to supply sufficient electrical services to PHEVs and BEVs? What role, if any, can the Commission play in this regard?

13. What policies should the Commission adopt to facilitate competition and innovation in the commercial and public infrastructure market?

14. What issues need to be addressed related to the relationship between regulated electricity utilities and third-party electric vehicle service providers that are proposing and/or implementing charging services at residential, commercial and public locations?

[28] See Energy Independence and Security Act, Title XIII § 1301, (characteristics and functions of a "smart grid") as cited in R.ulemaking 08-12-009, Order Instituting a Rulemaking to Consider Smart Grid Technologies Pursuant to Federal Legislation and on the Commission's own Motion to Actively Guide Policy in California's Development of a Smart Grid System, pp. 4-7.

Legal Issues Related to the Ownership and Operation of Charging Infrastructure

15. Under what circumstances are third-party electric vehicle service providers public utilities and/or electrical corporations pursuant to Pub. Util. Code § 216 and Pub. Util. Code § 218? What implications do Pub. Util. Code § 216 and Pub. Util. Code § 218 have on the competitiveness of the third-party electric vehicle service provider market? If the Commission has jurisdiction over third-party electric vehicle service providers, what is the appropriate level of regulatory oversight?

16. What statutory changes, if any, should the Commission propose to the legislature to encourage innovation and competition in the charging infrastructure market?

Codes and Standards

17. Please identify current and pending Society of Automotive Engineers vehicle design and interface technical requirements, the Underwriters Laboratory listed components and systems, and the National Electric Code, California Electric Code, and California Building Code Regulations that govern the installation, operation, and maintenance of charging infrastructure at the residential, commercial, and public charging EVSE. How does the timeframe for each code and standard adoption impact current and future vehicle and EVSE products? What role, if any, can the Commission play in improving or encouraging this process?

18. How important is consumer choice as to Charging Levels ((Level 1, 2 or DC)? If important, how may the Commission best balance driver and grid benefits for all residential, commercial, and public charging infrastructure?

19. What role can the Commission play to ensure EVSE compatibility with a unified EVSE conductive charge coupler standard (J1772) for all residential, commercial, and public charging EVSE within regulated utility service territories? What

role can the Commission play to ensure that EVSE be forward-compatible with emerging Society of Automotive Engineers loads, messages, and programs communication standards (J2293, J2836, and J2847)?

Electrical System Impacts

20. What are the potential electrical distribution system impacts associated with geographically concentrated PHEV and BEV charging in the near-term? How will utilities anticipate these impacts and make capital investments needed to ensure service network reliability? How should the utility capital investments be paid for and recovered?

21. What commercial and public infrastructure options are most likely to be deployed, e.g., Level 1 charging facilities, Level 2 charging facilities, "service station" model DC charging facilities, and/or battery swap stations? Should the Commission adopt policies to favor certain charging options taking into consideration cost-effectiveness, grid benefits, ability to meet PHEV and BEV driver charging demand, and ability to reduce BEV driver "range anxiety"?[29]

22. What potential load shape impacts associated with PHEV and BEV charging should utilities anticipate in the near-term? How can time variant pricing, demand response programs, and advanced meters mitigate load spikes associated with uncontrolled, simultaneous charging found to occur at specific times of day, for example, when drivers arrive home from work? How should the Commission address potential load spikes if a large number of customers begin charging

[29] For a definition of each charging option, please see Section 3.1. "Range anxiety" is sometimes defined as BEV driver concern over limited battery capacity to meet daily driving range or an extended trip of longer distance. Existing charging stations in California are mapped at http://www.evchargermaps.com.

simultaneously when lower electricity rates apply under TOU rate schedules?

23. In the long term, what are the benefits and drawbacks on electric generation and transmission associated with projected PHEV and BEV market growth in California?

Tariff-related

24. Should the Commission authorize a default time variant electric vehicle rate applicable to all residential electric vehicle tariff customers? What changes, if any, to the rate protection provisions of AB-1X[30] are needed to authorize a default time variant electric vehicle rate applicable to residential customers?

25. What rates should apply to customers charging their PHEVs or BEVs at commercial, industrial, and public charging facilities that are in the same service territory as their home utility?

26. What rates should apply to third-party operators of commercial charging facilities? Should the Commission establish new rates for commercial charging facilities taking into account the costs and benefits created by these entities?

27. How should a customer pay when charging a PHEV or BEV in another utility's service territory? Please evaluate options set forth below, or suggest alternative approaches:

    a. A customer pays a posted price for electricity to a specific electric charging provider at the time of the transaction, similar to how gasoline is purchased.

[30] Assembly Bill 1X, (Stats.2001-2002, 1st Ex. Sess., c. 4 (A.B.1), § 3, eff. Feb. 1, 2001), an act to amend Section 366.5 of, and to add Section 360.5 to, and to repeal Section 355.1 of, the Public Utilities Code, and to add Division 27 (commencing with Section 80000) to the Water Code, relating to electric power.

b. The second utility bills the customer's home utility and the home utility adds the electric vehicle electricity cost to the customers' energy bill. A third-party clearing house could facilitate these transactions.

d. A customer has a relationship with a third party charging provider and pays that third party wherever the customer charges.

e. A customer has a choice of all or some of the above options.

28. What types of costs and benefits are generated by electric vehicle adoption on different aspects of the electricity system, including transmission, distribution and procurement costs?

29. Should the electric vehicle rate structure be designed to align rates with the system costs and benefits of PHEVs and BEVs, and if so, how? Should the Commission assign additional costs and benefits attributable to PHEVs and BEVs to specified electric vehicle rate classes or socialize the costs and benefits attributable to PHEVs and BEVs to all customer classes? Should the PHEV and BEV rate classes bear existing rate component costs?

30. Should the electric vehicle rates reflect the marginal cost of service, particularly for off-peak electricity charging and, if so, how?

31. Should rate incentives be created for electric vehicles to be paired with distributed generation incentive programs, such as the California Solar Initiative (CSI) and Self-Generation Incentive Program? Should rate incentives be created for electric vehicles to be paired with demand response programs? How should these incentive programs be incorporated into electric vehicle rate structures? Who should pay for such incentives?

32. Under what circumstances can utilities and third parties aggregate PHEV and BEV services to participate in California Independent System Operator (CAISO) ancillary service

markets? What policies, if any, does the Commission need to consider in this regard?

Low Carbon Fuel Standard

33. What recommendations, if any, should the Commission make to the California Air Resources Board regarding the treatment of electricity under the Low Carbon Fuel Standard? [31]

34. If a utility generates and sells credits under the Low Carbon Fuel Standard regulation due to customers' use of electricity as a transportation fuel, what should the utilities do with the revenue from the credits?

Programs and Incentives

35. Should utilities and/or government provide low-interest finance incentive programs for residential and commercial EVSE? Should these programs incorporate tax incentives available through the American Recovery and Reinvestment Act (ARRA) of 2009?[32]

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[31] "For electricity used as a transportation fuel, the regulated entity under the Low Carbon Fuel Standard regulation is determined to be (A) the load-serving entity or provider of electricity services, (B) the electricity services supplier, (C) the owner and operator of the electric-charging equipment, and (D) the owner of a home with electric vehicle charging equipment." California Air Resources Board, "Proposed Regulation to Implement the Low Carbon Fuel Standard Volume 1: Staff Report: Initial Statement of Reasons," Appendix A, p. A-23/397, March 5, 2009, http://www.arb.ca.gov/fuels/lcfs/030409lcfs_isor_vol1.pdf. " 'Credits' and 'deficits' means the measures used for determining a regulated party's compliance with the average carbon intensity requirements in Sections 95482 and 95483. Credits and deficits are denominated in units of metric tons of CO2E." California Air Resources Board, "Proposed Regulation to Implement the Low Carbon Fuel Standard Volume 1: Staff Report: Initial Statement of Reasons," Appendix A, p. A-6/379, March 5, 2009.

[32] Homeowners and utilities are eligible for the installation tax credit. The credit is up to 50% of the cost of electricity conduits for recharging. Conduit costs are a significant

Footnote continued on next page

36. Should utilities and/or government provide incentives that encourage customers to purchase higher-efficiency electric vehicles rather than less efficient electric vehicles, and if so, how should the incentives be structured?

37. How should the Commission ensure that any policies developed related to electric vehicles provide a level playing field for transportation fuels and technologies?

38. How could electric vehicle adoption impact other Commission policies and initiatives including the Renewable Portfolio Standard, the Long-Term Energy Efficiency Strategic Plan, energy efficiency goals, and zero net energy homes goals?[33]

Education and Outreach

39. What entities and programs best facilitate customer outreach and education regarding convenient and timely EVSE installation options and customer tariff education to ensure awareness of off-peak versus on-peak charging costs?

Scope

40. Should the Commission consider natural gas vehicles as part of this rulemaking, or consider natural gas vehicle issues through

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portion of the total EVSE cost; ARRA section 1131, http://www.irs.gov/pub/irs-drop/n-07-43.pdf, p. 211.

[33] Load increase due to PHEV and BEV charging increases the renewable energy procurement requirement to meet the 20% and possible 33% Renewable Portfolio Standards. For example, load increases will also offset energy efficiency gains. However, PHEV and BEV load results in net emissions reductions that support California greenhouse gas emissions reductions goals. A typical PHEV user will use 2,900 kWh/year; a typical gasoline-powered vehicle user will use the equivalent of 10,000 kWh/year in gasoline usage, Mui, Simon, July 15, 2009 Smart Grid workshop. http://www.cpuc.ca.gov/NR/rdonlyres/6805C484-2439-495A-82DF-B7BF8F0853F8/0/SimonMuiNRDC.pdf

utility filed Application(s) and/or Advice Letter(s)? What are the near-term tariff, infrastructure, incentive programs or other issues that the Commission should address with respect to natural gas vehicles?

41. Should the Commission consider medium-duty electric vehicles, heavy-duty electric vehicles, and off-road electric vehicles as part of this rulemaking? If so, what issues specific to these vehicles should the Commission consider?

42. What other issues should the Commission consider in this rulemaking? What are your recommendations regarding those issues?

5.2. Proposed Schedule

The assigned Commissioner and/or Administrative Law Judge will, by subsequent ruling(s), provide additional scheduling details and may alter the schedule contained herein as they deem necessary. Consistent with Pub. Util. Code § 1701.5, we set a time period for resolving this rulemaking at 18 months as set forth in Pub. Util. Code § 1701.5.

Proposed Schedule

August 20, 2009	Issuance of Order Instituting Investigation.
October 5, 2009	Responses and Opening Comments addressing scope, schedule, and other procedural issues and responding to the questions above to be filed with the Commission.
November 6, 2009	Reply Comments to be filed with the Commission.

In addition to comments and rely comments responding to the questions set forth in Section 5, workshops and additional comments may be needed to establish a thorough record. Following receipt of the initial comments and replies, we anticipate holding a prehearing conference. At the prehearing

conference, we will address scope and scheduling issues, including whether this rulemaking should be divided into two phases with the first phase addressing urgent matters. After the prehearing conference, the assigned Commissioner will issue a ruling refining the scope and procedural schedule.

6. Coordination with Other State Agencies and Local Agencies

The Commission invites comments and encourages participation from governmental entities with interests related to the scope of this proceeding. These entities include the California Energy Commission, the California Air Resources Board, the CAISO, and local government organizations that are developing alternative fuel vehicle policies.

We invite comment from the California Air Resources Board on the proposed schedule for this proceeding, including whether certain aspects of the proceeding should be considered on an expedited schedule so as to coordinate with its own activities related to the Low Carbon Fuel Standard.

In addition, we invite comment from the California Energy Commission on aspects of this rulemaking including, but not limited to, relevant provisions of the AB 118 Alternative and Renewable Fuel and Vehicle Technology Program.

Further, the Commission invites comments from local governments and related local government organizations to streamline the installation of residential, commercial, and public charging facilities and to identify any barriers related to municipal ordinances, duplicative permitting requirements, and electric contractor relationships with utilities to facilitate expedited residential EVSE installation.

7. Record

We intend to incorporate into the record for this rulemaking the recent staff white paper issued by the Commission's Policy and Planning Division dated May 22, 2009. This staff white paper addresses light-duty vehicle electrification and is available at http://www.cpuc.ca.gov/PUC/energy/ev_comments.htm. We will also incorporate comments on the May 22, 2009 staff white paper as part of the opening and reply comment process for this rulemaking. These comments are available at the same web address. Parties may cross-reference web-posted comments in their comments filed in this rulemaking and may provide additional comments as needed.

We also plan to incorporate relevant materials from the July 15, 2009 electric vehicle workshop in R.08-12-009, and parties may reference those materials (http://www.cpuc.ca.gov/PUC/energy/090714_sgpres.htm) in their comments in this rulemaking.

8. Respondents

Respondents for this proceeding shall be Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and San Diego Gas & Electric Company.

9. Proceeding Category and Need for Hearing

Rule 7.1(d) of the Commission's Rules of Practice and Procedure provides that a rulemaking order "shall preliminarily determine the category and need for hearing, and shall attach a preliminary scoping memo." This rulemaking is preliminarily determined to be quasi-legislative, as that term is defined in Rule 1.3(d). Rule 1.3 (d) states " 'quasi-legislative' proceedings are proceedings that establish policy or rules (including generic policies or rules) affecting a class

of regulated entities, including those proceedings in which the Commission investigates rates or practices for an entire regulated industry or class of entities within the industry." This rulemaking will focus on policies and rules of general application. To the extent that the Commission will develop and implement rates and tariffs for alternative-fueled vehicles, that process will occur in either a separate ratesetting phase of this proceeding or in separate utility-specific applications. Further, we preliminarily determine that evidentiary hearings are not needed in this proceeding.

Any person who objects to the preliminary categorization of this rulemaking, the determination that hearings are not required, or the schedule shall state their objections in their initial comments and reply comments. The assigned Commissioner will issue a scoping memo making a final category determination. The final determination as to category is subject to appeal, as set forth in Public Utilities Code § 1701.5 and Rule 7.6(a).

10. Parties and Creation of the Official Service List

The Commission will create an official service list for this proceeding, which will be available at http://www.cpuc.ca.gov/published/service_lists. We anticipate that the official service list will be posted before the first filing deadline in this proceeding. Before serving documents at any time during this proceeding, parties shall ensure they are using the most up-to-date official service list by checking the Commission's website prior to each service date.

The respondents are parties to this rulemaking. All persons seeking to be added to the service list, including respondents, shall inform the Commission's Process Office of the below noted information no later than 20 days after the issuance date of this rulemaking via electronic mail

(Process_Office@cpuc.ca.gov) or by postal mail (Process Office, California Public Utilities Commission, 505 Van Ness Avenue, San Francisco, California 94102):

- Name and party represented, if any
- Address
- Telephone number
- Email address
- Request for Party, State Service, or Information Only status.[34]
- Specify the docket number of this rulemaking in the subject line of the email or letter.

Upon receipt of your information, the Process Office will place your name on the official service list posted on the Commission's website as soon as practicable.

In addition, interested persons may be added to the official service list after this 20-day period, but will only receive service of documents that are filed subsequent to their addition to the service list. You may become a party beyond this 20-day period by filing comments in response to this rulemaking pursuant to Rule 1.4(a)(2) or by making a motion to become a party pursuant to Rule 1.4(a)(3) or (a)(4). A person seeking party status pursuant to Rule 1.4(a)(3) or (a)(4) shall comply with Rule 1.4(b). After the expiration of this 20-day period, you also may have your name added to the official service list, either as State Service or Information Only, upon request to the Process Office (Rule 1.9(e)). A person may change the mailing address or e-mail address for service or the designation

[34] Party status is for those planning to actively participate in this rulemaking through, at a minimum, submission of written comments on the questions raised herein. State Service status is for employees of the State of California who will not be submitting comments. Information Only status is for those who wish to follow the proceeding and receive electronic service of documents associated with it, but who will not be actively participating.

of a person for service by sending a written notice to the Process Office and serving a copy of the notice on each person on the official service list (Rule 1.9(e)).

The Executive Director shall serve a copy of this Order Instituting Rulemaking on each person on the service lists for the following Commission proceedings: R.08-12-009 (Smart Grid Rulemaking), R.06-04-009 (Greenhouse Gas Rulemaking), R.07-01-041 (Demand Response Rulemaking), R.08-02-007 (Long-Term Procurement Rulemaking), and R.05-12-013 (Long-Term Resource Adequacy Rulemaking). In addition, the Executive Director shall serve a copy of this Order Instituting Rulemaking on representatives of all load serving entities as defined in Pub. Util. Code § 380(j), identified in Attachment A, and on representatives of the California Energy Commission, the California Independent System Operator, and the California Air Resources Board, identified in Attachment B.

Service and receipt of this order does not confer party status on any person, and does not result in that person being placed on the official service list for this proceeding. You must follow the procedures explained above to become a party and/or have your name placed on the official service list.

11. Service of Documents

We anticipate that an official service list will be available before the first filing deadline in this proceeding.

After the official service list is issued, parties must use the most up-to-date official service list on the Commission's website when serving documents. In addition, service of all documents filed with the Commission's Docket Office must be done consistent with Rule 1.9 and Rule 1.10. These rules permit electronic mail (e-mail) service of documents, in searchable format. In this

proceeding, parties shall provide concurrent e-mail service to all persons on the official service list for whom an e-mail address is available, including "Party," "State Service," and "Information Only" designations.

We encourage electronic filing and e-mail service in this proceeding. Parties can find information about electronic filing of documents at http://www.cpuc.ca.gov/PUC/efiling . E-mail service should be made according to Rule 1.10. Parties providing e-mail service should also provide a paper copy to the assigned Commissioner and Administrative Law Judge. The electronic copy should be in Microsoft Word or Excel formats to the extent possible. The paper copy should be double-sided. E-mail service of documents should occur no later than 5:00 p.m. on the date that service is scheduled to occur.

If you have questions about the Commission's filing and service procedures, contact the Commission's Docket Office.

12. Commission's Public Advisor's Office

Any person interested in participating in this rulemaking and who is unfamiliar with the Commission's procedures should contact the Commission's Public Advisor's Office in San Francisco at (866) 849-8390 or (415) 703-2074, (TTY-toll free) (866) 836-7825 or (TYY) (415) 703-5282, or in Los Angeles at (866) 849-8391 or (213) 649-4782, or send an e-mail to public_advisor@cpuc.ca.gov. More information about the Public Advisor's Office is available at the Commission's website, http://www.cpuc.ca.gov.

13. Intervenor Compensation

Any party that expects to claim intervenor compensation for its participation in this rulemaking shall file its notice of intent to claim intervenor compensation no later than 30 days after the first prehearing conference or

pursuant to a date set forth in a later ruling which may be issued by the assigned Commissioner or Administrative Law Judge.

14. Ex Parte Communications

This proceeding is subject to Article 8 of the Rules of Practice and Procedure, which specifies standards for engaging in ex parte communications and the reporting of such communications. Pursuant to Rule 8.2(a), ex parte communications will be allowed in this proceeding without any restrictions or reporting requirements unless and until the Commission modifies this determination pursuant to Rule 7.6.

O R D E R

IT IS ORDERED that:

1. The Commission hereby institutes this rulemaking to consider alternative-fueled vehicle tariffs, infrastructure and policies to support California's greenhouse gas emissions reduction goals.

2. Pacific Gas and Electric Company, Southern California Edison Company, Southern California Gas Company, and San Diego Gas & Electric Company are named as respondents and are parties to this proceeding pursuant to Rule 1.4(d) of the Commission's Rules of Practice and Procedure.

3. The assigned Commissioner or Administrative Law Judge may adjust the schedule identified herein and refine the scope of this proceeding as needed.

4. The Executive Director shall cause this Order Instituting Rulemaking to be served on all respondents; the service lists for the following Commission proceedings: Rulemaking 08-12-009 (Smart Grid Rulemaking), Rulemaking 06-04-009 (Greenhouse Gas Rulemaking), Rulemaking 07-01-041 (Demand Response Rulemaking), Rulemaking 08-02-007 (Long-Term Procurement

Rulemaking), Rulemaking 05-12-013 (Long-Term Resource Adequacy Rulemaking); all load serving entities as defined in Pub. Util. Code § 380(j), as identified in Attachment A; and the California Energy Commission, the California Independent System Operator, and the California Air Resources Board, as identified in Attachment B.

5. An official service list for this proceeding shall be created by the Commission's Process Office and posted on the Commission's website (www.cpuc.ca.gov) as soon as practicable after the first prehearing conference. Parties may also obtain the official service list by contacting the Process Office at (415) 703-2021.

6. Interested persons shall follow the directions in Section 10 of this Order Instituting Rulemaking to become a party or be placed on the official service list.

7. The category of this rulemaking is preliminarily determined to be "quasi-legislative" as that term is defined in Rule 1.3(d) of the Commission's Rules of Practice and Procedure.

8. Parties shall file Responses and Opening Comments addressing the questions identified in this order and scope, schedule, and other procedural issues by October 5, 2009. Parties shall file Reply Comments by November 6, 2009.

9. Parties serving documents in this proceeding shall comply with Rule 1.10 of the Commission's Rules of Practice and Procedure regarding electronic mail (e-mail) service. Parties providing e-mail service shall also provide a paper copy to the assigned Commissioner and Administrative Law Judge.

10. A party that expects to request intervenor compensation for its participation in this rulemaking shall file its notice of intent to claim intervenor compensation no later than 30 days after the first prehearing conference or

pursuant to a date set forth in a later ruling which may be issued by the assigned Commissioner or Administrative Law Judge.

11. Ex parte communications in this rulemaking are governed by Rule 8.2(a) of the Commission's Rules of Practice and Procedure.

This order is effective today.

Dated August 20, 2009, at San Francisco, California.

MICHAEL R. PEEVEY
President
DIAN M. GRUENEICH
JOHN A. BOHN
RACHELLE B. CHONG
TIMOTHY ALAN SIMON
Commissioners

ATTACHMENT A

Respondents:

Brian Cherry Director, Regulatory Relations Pacific Gas and Electric Company P. O. Box 770000, B10C San Francisco, CA 94177
Steve Rahon Director, Tariff & Regulatory Accounts San Diego Gas & Electric Company 8330 Century Park Court, CP32C San Diego, CA 92123-1548
Akbar Jazayeiri Director of Revenue & Tariffs Southern California Edison Company P. O. Box 800 2241 Walnut Grove Avenue Rosemead, CA 91770
Gregory Healy Southern California Gas Company 555 West Fifth Street, GT 14D6 Los Angeles, CA 90013

Non-respondent Load Serving Entities:

David Coyle, General Manager Anza Electric Co-Operative, Inc. 58470 Highway 371 Anza, CA 92539-1909	Raymond R. Lee Chief Operating Officer Mountain Utilities P. O. Box 205 Kirkwood, CA 95646
Douglas Larson Vice President, Regulation PacifiCorp 201 S. Main Salt Lake City, UT 84140	Robert Marshall, General Manager Plumas Sierra Rural Electric Coop. P. O. Box 2000 Portola, CA 96122-2000

Mary Simmons Rate Regulatory Relations Sierra Pacific Power Company P. O. Box 10100 6100 Neal Road Reno, NV 89520-0026	Ronald Moore Golden State Water Company/Bear Valley Electric 630 East Foothill Blvd. San Dimas, CA 91773
Dan Silveria Surprise Valley Electric Corporation P.O. Box 691 Alturas, CA 96101	Cindy Morrow Valley Electric Association 800 E. Hwy 372 Pahrump, NV 89048
3Phases Renewables, LLC Michael Mazur 2100 Sepulveda Blvd., Suite 37 Manhattan Beach, CA 90266	American Utility Network Diana Annunziato 10705 Deer Canyon Drive Alta Loma, CA 91737
AOL Utility Corp. Paul Oshideri, President 12752 Barrett Lane Santa Ana, CA 92705	APS Energy Services Co., Inc. Bob Anderson 5255 County RD 139 SE Stewartville, MN 55976
Calpine PowerAmerica-CA, LLC CSC – Lawyers Incorporating Service 2730 Gateway Oaks Drive, Suite 100 Sacramento, CA 95833	City of Corona Dept. of Water and Power Kerry Eden, Assistant General Manager, 730 Corporation Yard Way Corona, CA 92880
Commerce Energy The Corporation Trust Co. 818 W. 7th Street, 2nd Floor Los Angeles, CA 90017	Constellation NewEnergy, Inc. Derek Viner Two California Plaza South Grand Avenue, Suite 3800 Los Angeles, CA 90071
Constellation NewEnergy, Inc. Andrew B. Brown, Esquire Allison, Schneider and Harris, L.L.P. 2600 Capitol Avenue, Suite 400 Sacramento, CA 95816	Direct Energy Business National Registered Agents, Inc. 2030 Main Street, Suite 1030 Irvine, CA 92614

Direct Energy Services, LLC CT Corporation System 818 West Seventh Street, 2nd Floor Los Angeles, CA 90017	Coral Power, L.L.C. CT Corporation System 818 West 7th Street Los Angeles, CA 90017
Energy America, LLC Deryk I. King, Chief Executive Officer 12 Greenway Plaza, Suite 600 Houston, TX 77046	Liberty Power Holdings LLC Corporate Creations Network Inc. 131-A Stoney Circle #500 Santa Rosa, CA 95401
Liberty Power Delaware LLC Corporate Creations Network Inc. 131-A Stoney Circle #500 Santa Rosa, CA 95401	Pilot Power Group, Inc. Thomas Darton 8910 University Center Lane, Suite 520 San Diego, CA 92122
Praxair Plainfield, Inc. Rick C. Noger 2711 Centerville Road, Suite 400 Wilmington, DE 19808	The Royal Bank of Scotland, plc CSC – Lawyers Incorporation Service 2730 Gateway Oaks Drive, Suite 100 Sacramento, CA 95833
Praxair Plainfield, Inc. CSC – Lawyers Incorporating Service 2730 Gateway Oaks Drive, Suite 100 Sacramento, CA 95833	Strategic Energy LLC National Registered Agents, Inc. 2030 Main Street, Suite 1030 Irvine, CA 92614
Sempra Energy Solutions Ted Roberts, Esq. 101 Ash Street, HQ13 San Diego, CA 92101	Shell Energy North America, L.P. CT Corporation System 818 West Seventh Street, 2nd Floor Los Angeles, CA 90017
San Joaquin Valley Power Authority David Orth, General Manager 4886 East Jensen Avenue Fresno, CA 93725	

(END OF ATTACHMENT A)

ATTACHMENT B

Melissa Jones
Executive Director
California Energy Commission
1516 Ninth Street
Sacramento, CA 95814-5512

David Hawkins
Lead Industry Relations Representative
California Independent System Operator
151 Blue Ravine Road
Folsom, CA 95630

James Goldstene
Executive Director
California Air Resources Board
P.O. Box 2815
Sacramento, CA 95812

(END OF ATTACHMENT B)