BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA

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09-20-10
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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.	Rulemaking 09-08-009 (Filed August 20, 2009)

COMMENTS OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M) ON ADMINISTRATIVE LAW JUDGE'S RULING ON FIRST WORKSHOP ISSUES PAPER

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Dated September 20, 2010

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I.
INTRODUCTION

SDG&E respectfully submits the following comments on the "Utility Role in Supporting Plug-in Electric Vehicle Charging" Issues Paper and responds to the specific questions posed for parties. SDG&E commends the CPUC's efforts in capturing the substantive issues regarding the utility role in supporting plug-in electric vehicle ("PEV") charging, metering arrangements, and boundary issues. Overall, SDG&E finds that the Issues Paper comprehensively surveys the important issues surrounding the utility role in supporting PEV charging. SDG&E is in accord with Commission staff's near-term recommendations, and finds that the recommendation for the establishment of installation notification protocol should receive the highest priority for implementation. SDG&E supports the near-term recommendations regarding use of a single meter arrangement, but recommends further exploration of alternative longer term metering solutions. SDG&E notes that before long term options such as submetering are adopted there should be careful consideration of key factors such as utility resources and protocols necessary to support the option, reasonable availability to all customers, the potential need for statewide standards and billing systems support, the incremental cost of that support (e.g., for subtractive billing) and the cost allocation, and the simplicity of the option. Additionally, SDG&E agrees that the Commission and utilities should actively monitor PEV and metering technology to identify new metering options or challenges in the future. It will be important to explore emerging PEV metering, PEV charging technology (stationary and non-stationary), and PEV-

charging transaction-processing technologies to help emerging products enter the market quickly in a manner that does not impose new risks to customers or shifts costs and risks. Finally, given that the PEV market is in a formative stage of development, SDG&E encourages the Commission to give all parties the opportunity to serve this market; it's too early to limit the role of any party. Because it will be consumers that will drive the growth of this market, it is better to enable more rather than less choices.

SDG&E has commented on the issues of highest priority, and has described viable recommendations. SDG&E provides comments and recommendations in Part I below on specific sections of the Issues Paper including: metering background, metering arrangements, the utility role, and the proposed recommendations. Part II contains SDG&E's answers to the questions posed for parties at the end of the Issues Paper. Appendix A contains SDG&E's recommended changes to sections 1.2 and 1.6 of the Issues Paper.

II.
COMMENTS ON THE ISSUES PAPER

2.1 PEV Metering Options and 2.2 PEV Metering Arrangement Criteria

Submetering of PEV load and subtractive billing are appropriate for the utility.

One of the metering and billing approaches discussed throughout the Issues Paper is the submetering approach. With submetering, "the PEV meter load needs to be subtracted from the main meter load to avoid double-counting the PEV kWhs"[1]. SDG&E does not currently offer submetering for PEV customers. The billing system does not currently support automated billing for submetered services. To implement submetering for PEV customers widespread, significant changes to SDG&E's billing system for the PEV submetering would be needed. However, SDG&E will be able to provide submetering to PEV customers as a short-term solution due to the relatively low number of customers that will be participating in the ECOtality EV Project (with a maximum of 1,000 customer participants). Those who qualify to participate in the EV Project will be assigned one of the temporary, experimental PEV rates, approved by the CPUC in June 2010[2]. For that program, SDG&E is only able to provide submetering service under

[1] Attachment A, pg. 13

[2] The CPUC approved the use of temporary and experimental PEV electric rates for Nissan Leaf owners who are qualified by ECOtality to participate in the EV Project (funded by grants awarded to ECOtality from the U.S. Department of Energy and the CEC). The 23-month study commences January 2011. With these two grants,

conditions where SDG&E owns and controls the metering equipment to protect the integrity and accuracy of meter data. This temporary use of SDG&E submetering and subtractive billing will allow SDG&E to determine the resources required to offer submetering and subtractive billing to PEV customers. Because the use of the lower cost dual-meter adapter ("DMA")[3] is not accepted by Authorities Having Jurisdiction ("AHJ") within the SDG&E service territory at this time, SDG&E is implementing submetering and subtractive billing as a metering alternative for PEV customers during the EV Project. SDG&E supports individual metering of PEV loads, and it may be that the optimum long-term result will be coordinating with AHJs to ensure that there is a viable DMA or alternative lower cost metering option. However, in the interim, until a low cost DMA product option is developed that AHJs will accept, other lower cost metering options must be explored. The incremental costs, resources, and communication efforts required for SDG&E to implement submetering and subtractive billing support are described in response to questions in Section 5 below.

The complexities of submetering mentioned above and the associated incremental costs, which are discussed in Section 5, raise substantial concerns that the use of submetering for PEV may set a precedent for submetering in future programs and projects outside the scope of PEV (e.g., instances where utility subtractive billing between two services, metered and submetered, would be required to calculate billing charges or credits). SDG&E recommends that other metering options be explored with future similar programs or projects that require subtractive billing or specific end-use equipment measurement. SDG&E does not intend for PEV metering policy to inform or set precedent for metering solutions used for other programs or projects.

4.4 Other Boundary Issues

Electric Vehicle Service Equipment (EVSE) submetering should be required to meet industry standards for proper accurate measurement.

Section 4.4, page 32 of the Issues Paper states the following:

ECOtality will deploy about 2,500 home, public and commercial charging facilities throughout the greater San Diego region. The first 1,000 Leaf owners in the SDG&E service area who are qualified by ECOtality to participate in the EV Project will receive free home charging units or EVSEs. Customers not qualified to participate in the EV Project will not be eligible to receive one of the experimental rates, and can request one of the three existing EV rates available today.

[3]Currently, Authorities Having Jurisdiction (AHJ) are not approving the use of DMA products available today for PEV separate metering requirements in their current form.

> "Meters in the EVSE would raise new boundary issues between the utility and the customers for series billing. If the customer is required to use a utility meter for billing, then the EVSE (or, at least, the meter within it) would need to be owned by the utility in order to serve as a submeter in a series metering arrangement. This would represent a significant change in the customer-utility boundary, as the EVSE is currently regarded as customer-owned equipment on the customer side of the meter. However, a vehicle [meter] in the EVSE would not necessarily need to be owned by the utility – such a meter could be treated the same as a customer-owned submeter."

This technical area is one that may require a more extensive discussion among the stakeholders. In order to most effectively meet challenges related to standards and testing of non-utility-owned PEV-EVSE meters, SDG&E recommends that the California utilities form a Commission-sponsored working group that identifies a common standard for EVSE-related metering. Today, the utility has the responsibility to test and verify meter accuracy, regardless of whether the meter is installed before or after the customer point of service. This ensures that all aspect of metering standards are evaluated, including metering equipment accessibility, accuracy, security, communication compatibility, upgradeability, tamper resistance and meter identification. The CPUC should also consider a role in approving a standard applicable to all EVSE-related submeter manufacturers that seek to have their metering equipment to be "certified" for use in California; all certified equipment should be tested for compliance with the standard. As part of this certification process, the CPUC (or a party designated by the CPUC) should then maintain the list of EVSEs approved for submetering use in California. California certification could be implemented and managed by an independent third party or by a designated utility. In general, SDG&E's experience with third party meter providers in direct access has been inconsistent, at best. It would serve the State to take particular care to ensure that the adopted policy does not create problems, all in the name of creating meter markets. The key here is to promote PEV expansion. The development of metering options needs to be viewed in that context, not as an independent objective.

4.5 Utility Role in EVSE Deployment

Utilities should be allowed to provide EVSEs and related services so as to enable an emerging market for PEV and nascent EVSE technology.

Section 4.5 summarizes a number of issues related to the potential roles of the various parties in the deployment of EVSEs. SDG&E is concerned that during the early stages of PEV market development, it is too early to limit the roles of the various parties by narrowing

deployment alternatives. SDG&E encourages the Commission to consider not limiting utility involvement in any capacity that could help stimulate the PEV market, including offering PEV services such as the EVSE service. Utility-offered PEV services can be designed in ways to promote and stimulate competitive markets in PEV products and services. For example, the Commission should consider the potential increase in the demand for EVSE with utilities as a convenient distribution channel for EVSE manufacturers. Specifically, the utilities should play a major role in ensuring that EVSE infrastructure is widely accessible and convenient for PEV customers. As the market matures, the long-term scope of the utility role can be revisited.

4.8 Utility Role in 'Vehicle Roaming'

The customers must be able to charge their PEV at various locations and be billed properly for their PEV electric usage.

Section 4.8 provides that: "[c]harge stations can easily be equipped with payment methods at the service point, eliminating the need for a costly data and revenue exchange between utilities." While this may be true, SDG&E believes that such point-of-sale (POS) systems should include a billing clearinghouse function and mobile metering to enable billing for charging at any electrical outlet (residence, business, public area, etc.). This could expand the available charging network far beyond public charging stations to include any available existing electrical outlet. This function could be served by an independent third party (or a clearinghouse) where a third party billing network can interface with the PEV customer's utility's billing system. Vehicle roaming issues are an area that will require extensive development and exploration before all parties can gain an understanding of the potential role of the utility and the complexity involved in providing a customer with a single bill that includes all of his PEV electric charges that may have occurred at different locations.

5.2 Proposed Recommendations

Early notification of EVSE charging installation will provide the customer with greater electric reliability and provide the utility with critical information necessary for timely distribution system improvements in PEV inclined neighborhoods.

SDG&E fully supports the imperative for an early installation notification protocol to help evaluate and prepare for local distribution system impacts, as the Commission recommends in section 5.2, page 36 (discussed in section 4.6). This should be considered one of the highest

priorities in working with the Commission for a longer-term, systemic solution. SDG&E is confident that utility-customer privacy policies in place today will adequately protect its customers as applied to this protocol. There has been significant progress made by all the relevant stakeholders involved in this effort, primarily because all parties understand the value of early notification. Yet, the parties recognized that the success of an early notification protocol is not under the control of any single entity, and advancing on this critical matter depends on continued collaboration. Unfortunately, such a voluntary collaborative approach may not be sustainable, which means that other structures may need to be developed to substitute for voluntary collaboration at some stage in the future.

Utilities should not be precluded from installing, owning and maintaining PEV EVSE submetering and related services.

Table 6 recommends that the PEV meter and EVSE should be owned by the customer under the submetering arrangement. The option of submeter ownership (including utility ownership of the EVSE with submetering capability) should remain an open issue until business models are more fully developed. In any event, any party owning the submeter should be responsible for fulfilling the State's meter certification requirements and for any necessary interface with utility billing systems to ensure timely conveyance of meter data to allow for billing in the ordinary course of business.

III.
QUESTIONS FOR PARTIES

1. Are there additional meter arrangements that the utilities should consider beyond those identified in this paper?

Yes, SDG&E is evaluating the following:

Off-vehicle mobile submeter – SDG&E would like to consider evaluating an off-vehicle, mobile, communicating submeter that could be used independently of a stationary EVSE for 120V applications.

Self-Contained or current transformer (CT) rated solid meter – As noted above in comments on section 2.1 and 2.2, for those PEV customers who have been qualified by ECOtality to participate in the EV Project (with the testing of CPUC-approved PEV

experimental rates) SDG&E will be evaluating the use of a small CT at the customer's breaker feeding the EVSE and an instrument transformer-rated meter in a dual-meter adapter or separate surface-mounted configuration as a method of submetering located at the service entrance. In conjunction with a CT, a Form 4S Smart Meter could be installed to record interval consumption, which could then be subtracted from the primary, upstream service meter measurement. A self contained solid state meter rated at 200 Amps could also provide adequate sub-metering of the EVSE load assuming the current draw from the PEV is sufficiently high to register accurately on the meter. SDG&E is investigating the possibility of recording events in the electric meter's Home Area Network ("HAN") tables[4]supported by Smart Energy Profile (SEP) 1.0/1.1 implementations or in a historical log of events recorded in the memory of the electric meter that could be used to indicate charging times and energy received.[5]

2. Do some metering arrangements better encourage (or discourage) future technology changes or market developments relative to other arrangements?

Metering that utilizes an open standards-based utility Smart Meter HAN technology will support more efficient integration as technologies evolve by providing open-standard interfaces to in-home HAN gateways by multiple applications (e.g., from load control, generation, PEV charging, price signal. and Smart Meter interfaces). Dictating technologies such as Zigbee, HomePlug, PLC or other transport mechanisms should not be the approach the utilities or the CPUC prefers for implementation; the utilities and the CPUC should support the definition of a broad vision of what functions HANs should encompass and, most importantly, the utilities and CPUC should support open (as opposed to proprietary) standards to help ensure interoperability of equipment and systems used for PEV charging and metering.

3. What factors should the Commission consider in determining the utility-customer boundary in regards to submeters and EVSE?

Depending on the utility's role in supporting PEV infrastructure, especially during the formative years (as described below in response to question 4), the following factors are critical:

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[4] Home Area Network (HAN) tables are SEP-defined sets of data elements stored within memory of the meter. These data tables can be written to and read from as needed to supply information from the SEP compatible EVSE solution.

[5] Specific collection and processing of these data would likely require development before it could be implemented. More would have to be known regarding the type of HAN signals that can be provided to the Smart Meter during charging, discharging, and non-charging periods of time (e.g., events with dates and times recorded in meter with kWh usage provided by EVSE).

- **Robust PEV metering and submetering service offerings** – The issue of the opportunity to offer a variety of PEV metering and submetering services (in the context of broader PEV charging services), should remain an open issue, subject to further discussion, especially during the early stages of PEV market development.
- **Meter accuracy validation and certification** – As noted above in comments on Section 4.4, utilities will require periodic verification of the accuracy of submeters and for the provision of meter data, using some of the methodologies in place today (for example, similar to and adapted from those for Direct Access customers and use of the Direct Access Standards for Metering and Meter Data ("DASMMD"[6]) for random sample testing of customer-owned metering equipment). Please see recommendations above in comments on Section 4.4 regarding the need for an EVSE meter-related certification process.
- **Billing** – Ensure that billing systems and associated operations, like those currently in use by utilities for customers on EV rates, can provide a price signal to PEV consumers regarding the total cost of PEV electricity usage (by time of use period).
- **Integrated systems** – Use of the utility's Smart Meter HAN and Smart Grid systems could be used for integrating networked charging systems (non-proprietary, with open standards) of various submetering providers.

4. What utility role issues should be prioritized by the Commission in order to facilitate PEV adoption beginning in Winter 2010?

SDG&E believes that the utility plays a critical role in supporting the rapid development of the electric transportation market, especially early on. The following role issues should be considered a priority:

- **Utility PEV services** – As noted in SDG&E's response to question 3 above and comments to Section 4.5, the utility should not be restricted from providing PEV services in any capacity that could help stimulate the PEV market, including offering PEV services such as the EVSE charging service. Utility offered PEV services can be designed in ways that promote and stimulate competitive markets, and may in fact help stimulate the growth in PEV products and services.[7] This will ensure the there are options available for all PEV consumers seeking PEV charging services, especially in those markets where PEV consumers may not have access to charging facilities (e.g., those living in multi-unit dwellings) where only publicly available charging facilities are the most viable, if not the only option available to them. Implementation of these services will require utility ownership of the charging infrastructure (e.g., charging facilities, integrated network, as well as the metering and electric T&D). As the market matures, the long-term scope of the utility role can be revisited.

[6] Established by the CPUC Decision 98-12-080.

[7] SDG&E will strongly consider the extensive use of third party charging entities to design, build, operate and maintain such networked charging infrastructure, in an effort to help accelerate the growth of this market, and support SDG&E's commitment to achieving its Diverse Business Enterprise (DBE) goals.

- **Establish metering standards** – As described in SDG&E's response to question 3 above, and proposed in comments to Section 4.4, a process similar to one used to develop the DASMMD standards should be used for establishing EVSE metering standards. Metering standardization will simplify and streamline a critical part of the process for consumers and Electric Vehicle Service Providers ("EVSPs") in implementing PEV charging services and ensure the utility has the necessary information in a format that allows it to provide reliable service.
- **Establish system standards** – In addition to the role that the utility can play in setting standards statewide for meters (as noted above), SDG&E believes that the utilities have the opportunity to create an open, interoperable architecture for communications to allow PEV charging networks to integrate with utility smart grid systems, making full utilization of existing and future utility infrastructure (i.e., Smart Meters and Smart Grid). This would reduce overall costs to market participants, increase efficiency of charging networks, reduce needless duplication of systems, and accelerate growth of the market overall.
- **Education and outreach** – Electric transportation outreach programs sponsored by utilities are critical to increase the awareness among all its customers regarding PEV technology, the benefits of electric transportation, and the importance of planning for and managing PEV load. Knowledge about the critical steps to acquiring PEV charging facilities, and the importance of working with the utility, will potentially reduce information barriers leading to increased PEV adoption.
- **PEV rates** – Utilities should be authorized to file PEV rate applications as soon as practical in order to keep pace with PEV market growth; innovative rate designs should be encouraged (e.g., discounts for modulated charging, off-peak charging, and charge-power variation to mitigate adverse grid impacts of concentrated PEV charging critical to grid reliability).
- **Determine distribution system adequacy** – Evaluation of the electric distribution system's capacity to support specific residential and commercial PEV consumer charging needs is critical as this benefits all customers by ensuring the safe, reliable and efficient integration of PEV charging with the utility grid.
- **Back office support** – As noted in SDG&E comments to this Issues Paper in discussions regarding utility resources necessary to support submetering (e.g., with systems to support subtractive billing where submetering is used) and further addressed in response to Question 5 below, adequate back office support is essential.
- **Research, Development and Demonstration (RD&D)** – Utilities must have the resources to research, assess and encourage emerging PEV metering and PEV-charging transaction-processing technologies. Independent metering of PEV consumption will be critical for PEV-specific rates, earning Low Carbon Fuel Standard ("LCFS") credits, and other potential applications (e.g., tracking electric transportation fuel usage for applying road use taxes) all depend on the emergence of reliable, accurate and low cost EVSE metering. Metering solutions must be developed for PEV charging using EVSEs and standard outlets. Additional research is necessary to understand more about how to control the level of EVSE charging rates (e.g. modulation and power-level variation) to

ensure transformers and networks are not prematurely overloaded (e.g., through the Smart Meter by utilizing the service limiting functions and charging "tiers" during different operating conditions, such as normal, critical and emergency).

5. What back office communication functions are necessary to allow utilities to process submeter data?

If the utility offers submetering for PEV charging services, significant changes would need to be made to SDG&E's billing system. SDG&E is currently analyzing the potential cost impact of PEV charging and subtractive billing. In addition to these system changes, each customer's account would need to be manually configured within the billing systems. This initial configuration will be time consuming and would require a secondary review to ensure accuracy. As such, on-going incremental maintenance and support would be needed to ensure ongoing data accuracy from both meters and to troubleshoot any inconsistencies that might arise. Any corrective processing, including billing adjustments, would require additional time (with potential delays) and a secondary audit to ensure that the meter and submeter were corrected appropriately. While these additional costs are briefly touched upon in the Issues Paper[8], SDG&E estimates that these incremental costs could be approximately $54,000 annually for every 7,000 - 8,000 vehicles added. This figure includes both the costs associated with the manual configuration and the ongoing support and maintenance, which would be in addition to, the previously mentioned, billing system changes.

In addition to the incremental costs mentioned above, certain submetering and billing implementation could cause customer confusion and concern regarding billing accuracy. To address these concerns additional resources and communications with customers could be necessary. These costs could increase as non-utility third party PEV services expand.

Furthermore, to support the above back office functions, the following communication capabilities would require development:

- The remote collection of energy consumption data in intervals of 15 to 60 minutes from both the PEV-EVSE submeter and point of service meters.
- The capability to compare utility metered energy to the energy used by the PEV-EVSE (submetered) system.

[8] Attachment A, pg. 18

- The capability to read and process HAN information from the Smart Meters to utilize data residing in the HAN tables from the PEV-EVSE, if this approach is used in a submetered application.
- The capability to read and process event and summary data (that will need to be recorded and stored in the submeter) from the PEV-EVSE regarding times, dates and charging rates.
- The capability to read and process energy consumption, voltage, and kW charging levels from the PEV-EVSE for activating service limiting tiers.

6. What metering arrangements should be used for residential homes with PV panels?

This is an area that will require additional investigation, in order to develop a longer term solution due to issues associated with restoring service after an outage. There is concern that cost and charges associated with PV credits at the point of service meter may require special accounting if the energy is generated by the PV system flows directly into the PEV circuit for charging. In this case a separate PV interval based submeter would be required to capture generation output for reconciliation with the PEV charging circuit and point of service meters. Currently, SDG&E does not separately meter most individual PV facility production.

The normal two-channel (delivered and received kWh) Smart Meter installed as the point of service meter along with a Smart Meter as the submetering solution would provide the most flexible data collection option from a billing or rates perspective (assuming the utility has responsibility for calculation).

7. How does the issue of roaming impact metering requirements?

Roaming requires metering capability at the vehicle, either on-board the vehicle or with a physically separated mobile submeter that can travel with the vehicle (e.g., with the 120V cord-set). It also requires a submeter that is capable of identifying the vehicle to which it is attached and, depending on business model, the utility account to which the vehicle is registered. Processing of the associated transactions would require a "clearinghouse-like" system to track and process transactions, and to integrate these transactions with the utility billing systems. If tracking of PEV charging from existing outlets is desired, identifying energy consumption from specific vehicles is likely to be one of the most significant PEV-metering challenges. Until other centralized electricity billing systems are proven, utility billing systems represent a single,

central point of responsibility for measuring and billing for energy consumed from fixed or mobile meters.

Appendix A

The following are recommended changes to sections of the Issues Paper:

1.2 Metering Basics: What can and can't a meter do?

SDG&E recommends the following changes (new language is indicated in *italics*) to Section: 1.2 of the Issues Paper:

"In its simplest form, an electric meter measures the current going through a circuit at a specific location in the power system, most frequently at the point of service to a customer account. Although parties ascribed numerous functions to the meter, the meters' *basic* functions are limited to:

- Measuring the accumulated current going through a given wire;
- *Measuring the voltage or potential applied to the load;*
- *Converting these measurements to energy usage or consumption in watt hours;*
- Recording the ~~current~~ *watt hour* readings under different time intervals;
- Storing meter data internally; and
- Communicating *stored* data (wirelessly or over wires).

The AMI meters currently being deployed by the three investor-owned utilities (IOUs) cannot do the following:

- Measure or store data for *specific* ~~multiple~~ subloads;
- Respond to demand response or load management signals *associated with a specific subload*; or
- Calculate or process billing information *from subloads*.

Meters have four characteristics:

- Accuracy: Meter 'accuracy' is defined as the variance of the ~~demand~~ measurement versus the *actual delivered value* ~~demand delivery~~. For example, a meter with 1% accuracy would produce meter measurements that may vary by +/- 1% of the actual *energy* ~~load~~ delivered. Smaller accuracy ratings reflect greater measurement precision. Electricity meters generally range in accuracy from 5% to .25%. Mechanical electricity meters traditionally used by utilities have 2% accuracy, while the Advanced Meter Infrastructure (AMI) meters currently being installed by California's IOUs are rated at *.5% or better for residential or .2% or better for commercial* ~~25%~~ accuracy *as detailed in the ANSI C12.20 specification*.
- Data measurement granularity: Current AMI meters being installed in each IOU territory can measure a single customer's usage under different time intervals. Each IOUs' AMI meter is required to track load at a minimum granularity of hourly intervals.
- Data Storage Capability: Meters have memory ~~cards~~ that can store past usage data. AMI meters generally store ~~one day to~~ one month of data *to one year of data depending upon the number of channels and interval length being recorded."*

1.6 Meters and Smart Grid Communication Functions

SDG&E would add to this Section of the Issues Paper that the current Smart Energy Profile[9] (SEP) 1.0 and forthcoming SEP 1.1 communication protocols both support user-defined interval metering from the Plug-in Vehicle (PEV), assuming it is SEP compatible and capable of transmitting on the Zigbee Home Area Network (HAN) radio network, through the Smart Meters HAN and Wide Area Network communication infrastructure to SDG&E's back office system[10]. Existing Smart Meters and HAN communications infrastructure will likely support such PEV data collection and transmission, however implementing this capability will likely require firmware (software on hardware) modifications in existing Smart Meters in order to transport SEP metering device data to SDG&E's back office systems.

[9] Smart Energy Profile is an industry standard communications specification that details data elements to be supported when exchanging data between two Zigbee or equivalent enabled devices.

[10] Infrastructure is the transport mechanism and data structure used to exchange data between two independent devices.

Dated September 20, 2010.

Respectfully submitted,

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CERTIFICATE OF SERVICE

Pursuant to the Commission's Rules, I hereby certify that I have this day served a copy of the foregoing **COMMENTS OF SAN DIEGO GAS & ELECTRIC COMPANY (U 902 M) ON ADMINISTRATIVE LAW JUDGE'S RULING ON FIRST WORKSHOP ISSUES PAPER** on all parties of record in **R.09-08-009** by electronic mail and by U.S. mail to those parties who have not provided an electronic address to the Commission.

Copies were also sent via Federal Express to Administrative Law Judge Regina DeAngelis and Commissioner Nancy Ryan.

Dated at Los Angeles, California, this 20th day of September, 2010.

/s/ Marivel Munoz
Marivel Munoz

CALIFORNIA PUBLIC UTILITIES COMMISSION
Service Lists: R.09-08-009 - Last changed: September 15, 2010

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