

July 14, 2014

**VIA E-MAIL DOCKET@ENERGY.
CA.GOV**

California Energy Commission
Dockets Office, MS-4
Re: Docket No. 14-IEP-1B
1516 Ninth Street
Sacramento, CA 95814-5512

Re: 2014 Integrated Energy Policy Report: Lead Commissioner Workshop on Electric and Natural Gas Vehicles in California

I. INTRODUCTION

Pacific Gas and Electric Company ("PG&E") appreciates the opportunity to provide comments on the Lead Commissioner Workshop on Electric and Natural Gas Vehicles in California ("Workshop"), held on June 23, 2014, as part of the 2014 Integrated Energy Policy Report ("IEPR") Update. The Workshop explored the next steps and barriers to realizing the benefits of electric and natural gas transportation in California.

PG&E supports California's climate change policies and believes that the transportation sector provides significant opportunities for greenhouse gas ("GHG") emission reductions. Transportation electrification can play a key role in reducing GHG emissions and PG&E supports helping accelerate electric vehicle ("EV") market adoption. Additionally, natural gas vehicles ("NGVs"), including medium and heavy-duty vehicle classes and some non-road applications, may also contribute positive reductions in GHG. Natural gas methane leak detection is vital to public health and protection of the environment. In these comments, PG&E offers detailed narratives on electric vehicle grid integration and natural gas as a transportation fuel (Section II) and methane leakage (Section III). The following summarizes PG&E's key points:

- Transportation electrification can play a key role in reducing GHG emissions and PG&E supports helping accelerate EV market adoption. Future efforts should focus on how public policymakers, regulators and market participants, including electric utilities can help remove the major barriers to EV adoption.

- Natural Gas as a transportation fuel may provide GHG reduction benefits in medium and heavy-duty goods and freight movement. PG&E is currently assessing market opportunities within these sectors.
- Reducing methane leakage provides both enhanced environmental and safety benefits. PG&E is adopting new tools such as the Picarro Surveyor which is 1,000 times more sensitive at identifying methane leaks than previous models.
- To fully deploy technologies like this, and to achieve the expected safety and environmental benefits, the regulatory framework must evolve to support investments in these types of technologies.

II. ELECTRIC VEHICLE GRID INTEGRATION AND NATURAL GAS AS A TRANSPORTATION FUEL

PG&E believes that electrifying the transportation sector has the potential to provide significant opportunities for GHG emissions reductions. Natural gas as a transportation fuel may also provide GHG reductions when used in medium-duty, heavy-duty, marine, rail and other non-road applications.

Since lifecycle emissions of EVs depend on the electricity mix used to power the vehicle, and PG&E's electricity mix is increasingly carbon free, EVs can help play a major role in helping meet California's future climate change goals. In addition to providing GHG reductions benefits, vehicle grid integration can enable additional benefits from vehicles in the form of grid services. Smart charging can be used to help consume electricity in times of over-generation and to reduce electricity consumption on peak.

As the electric vehicle market continues to grow, PG&E looks forward to developing programs and policies to help enable the provision of grid services through vehicle grid integration. In the current stage of EV market adoption, PG&E recommends that policy efforts focus on helping accelerate EV market adoption. From the research that PG&E has conducted, the major barriers to EV adoption are (1) the upfront cost of the EV itself; (2) the range and associated amount and location of available retail EV charging infrastructure; and (3) consumer knowledge and awareness of the benefits and costs of EVs. Policy efforts should focus on the role of policymakers, regulatory and market participants, including electric utilities in helping remove the major barriers to EV adoption consistent with the utilities' traditional role in providing safe, reliable, and affordable delivery of electricity from the point of generation to the point of consumption by retail customers.

PG&E supports ongoing research within the natural gas industry to learn more about the benefits of using natural gas to fuel medium and heavy-duty vehicles, as well some marine and rail applications. PG&E is currently assessing market opportunities for natural gas a

transportation fuel to better understand barriers associated with the propagation of technologies and market acceptance requirements.

III. CONSISTENT REGULATORY ACTION IS NEEDED TO REDUCE METHANE LEAKAGE

PG&E is actively taking steps to track and address leaks on its natural gas distribution system and is leading the industry by adopting new, technology-driven tools in its efforts. Reducing methane leaks is a key driver in PG&E's safety-driven approach to operating and maintaining the natural gas system. By reducing methane leakage, both enhanced environmental and safety benefits can be achieved.

PG&E's multi-pronged approach to reducing methane emissions from its system relies on improved technology and better enforcement. On the technology front, PG&E is using the Picarro Surveyor, which detects gas leaks at a level of sensitivity 1,000 times greater than previous methods. PG&E is the first gas utility to investigate and support the development of these types of state-of-the-art gas leak detection analyzers, which can allow for earlier detection and repair of leaks and, as a result, reduced methane leakage from the natural gas system.

However, to fully deploy technologies like this, and to achieve the expected safety and environmental benefits, the regulatory framework must evolve to support investments in these types of technologies. PG&E had proposed to shorten the period between its gas leak survey cycles from five years to three years, to repair lower grade leaks faster than in past years, and to replace six times as many miles of distribution pipe per year than PG&E has completed in recent years. However, a recent proposed decision in PG&E's 2014 General Rate Case would not align with these efforts. PG&E will continue to advocate for the accelerated leak survey programs which can help achieve a win-win for the state of California and PG&E's customers, through improved environmental benefits and a safer gas system.

Reducing methane emissions also requires greater enforcement of the rules to avoid unintentional natural gas releases from the pipeline. While California participates in the 811 "Call before you Dig" program, dig-ins are unfortunately a routine occurrence on PG&E's natural gas system because parties perceive it to be less expensive to risk a dig-in than to wait two days for the gas lines to be marked. This misalignment in incentives creates risk to the safety of our system and also contributes to methane release. PG&E is leading a major program with other utilities and state agencies to reduce dig-ins.

Finally, additional research and development in this area can be valuable and PG&E welcomes the CEC's and the Air Resources Boards continued support in this area.

IV. CONCLUSION

PG&E appreciates the opportunity to provide these comments and looks forward to further participating in the 2014 IEPR Update. Please do not hesitate to contact me if you have any questions or need additional information.

Sincerely,

/s/

Matthew Plummer

cc: Commissioner Janea A. Scott (Janea.Scott@energy.ca.gov)
Jim McKinney (Jim.McKinney@energy.ca.gov)