

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

Order Instituting Rulemaking to  
Consider Alternative-Fueled Vehicle  
Programs, Tariffs, and Policies.

Rulemaking 13-11-007  
(Filed November 22, 2013)

**PRELIMINARY COMMENTS OF THE INTERSTATE  
RENEWABLE ENERGY COUNCIL, INC.**

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December 13, 2013

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The Interstate Renewable Energy Council, Inc. (“IREC”) hereby submits its preliminary comments on the scope, procedural structure, schedule and specific questions set forth in Section 5 of the November 22, 2013 Order Instituting Rulemaking (“OIR”) in this proceeding to consider alternative-fueled vehicle programs, tariffs and policies.

**I. IREC’S INTEREST IN THIS PROCEEDING**

IREC is a U.S. Internal Revenue Code § 501(c)(3) non-profit organization that enables greater use of clean energy in a sustainable way by (i) introducing regulatory policy innovations that empower consumers and support a transition to a sustainable energy future, (ii) removing technical constraints to distributed energy resource (“DER”) integration, and (iii) developing and coordinating national strategies and policy guidance to provide consistency on these policies centered on best practices and solid research. The scope of IREC's work includes incorporating DER growth into utility distribution system planning and operations.

Over the past five years, IREC has worked in nearly 40 states to implement successful regulatory policies and programs that have greatly reduced barriers for DERs. IREC focuses on

policies that directly impact customer access to renewable technologies, including energy storage, net metering rules, community renewable power programs and interconnection procedures. IREC actively monitors and participates in DER enhancement and implementation efforts throughout the country.

IREC's interest in this proceeding springs from IREC's demonstrated long-term concern, as evidenced by its participation in numerous previous Commission proceedings, to encourage the deployment and use of advanced clean energy technologies, especially, but not limited to, distributed solar photovoltaic ("PV") generation, and the role that such advanced technologies can play in assisting California in achieving its clean energy goals. The expanding use of alternative-fueled vehicles ("AFV") in California, in connection with the particular objectives of California Executive Order B-16-2012, which set a target of 1.5 million zero-emission vehicles ("ZEVs") on the road in California by 2025, as well as in connection with the ever increasing deployment of distributed solar PV within the state, falls clearly within scope of IREC's policy concerns.

IREC strongly supports the general direction that the Commission is charting in this OIR and, in particular, applauds the Commission's determination to explore the potential and value of vehicle-grid integration, including the use of vehicle batteries for demand response or energy storage. IREC firmly believes that the proper integration of electric vehicles can offer significant benefits to society, especially in connection with the demonstrated need of California to help ease the integration of high levels of renewables into the state's power grid.

The OIR explicitly recognizes the linkage between distributed renewable generation and the widespread deployment and use of plug-in hybrid and electric vehicles (collectively, "PEVs"). Specifically, the first track of this proceeding is intended to evaluate the potential and value of vehicle-grid integration, including the use of vehicle batteries for demand response or

energy storage<sup>1</sup>, both of which grid elements have already been recognized by the Commission as having a major role to play in helping to resolve the intermittent nature of renewable resources.<sup>2</sup>

Given the potentially major beneficial impact that the widespread deployment of PEVs can have on facilitating the integration of renewables, and, in particular, solar PV, IREC hopes to provide the Commission with constructive technical and policy guidance as it explores the major issues relating to -- and seeks to develop appropriate new policies to effectively guide -- the expanding use of AFVs within the State.

## II. IREC's PRELIMINARY COMMENTS ON PROCEDURAL ISSUES AND QUESTIONS POSED IN THE OIR

IREC does not have comments at this time on most of the questions posed in Section 5 of the OIR. Rather, IREC expects that many of these issues will be explored later in the proceeding, after the prehearing Conference called for in Section 6 of the OIR, and IREC reserves the right to provide its views on those issues at that time.

However, several of the questions in Section 5 do raise important issues as to the proper scope of the proceeding. These are issues that should be initially addressed at the Prehearing Conference, and IREC offers the following comments to guide the Commission as it determines how best to bring these issues to the fore as the proceeding evolves. Our specific comments at this time focus on the question posed in subsection 5.2.2:

*What issues need to be considered when designing PEV rates for residential charging?*

As IREC sees it, this question raises several important unspoken issues that the Commission needs to actively grapple with as it moves forward in this proceeding. These issues are:

<sup>1</sup> See, OIR, at page 2.  
<sup>2</sup> See, e.g., the Commission's Decision D.13-10-040 of this past October adopting an energy storage procurement framework and design program.

(1) As the Commission moves forward to develop PEV rates for residential charging, it must make special provision for residential customers who already have or will install solar PV installations and who seek to “fill the tank,” as it were, with self-generated solar energy. This issue has several dimensions.

First, the Commission needs to explore and take into account the needs of such “dual use” customers as it considers the benefits of and means to facilitate enhanced vehicle-to-grid interaction.

Second, the Commission needs to explore and take into account the needs of such “dual use” customers as it evaluates the range of possible tariff revisions that will encourage the expansion of the market for PEVs, while at the same time meeting the revenue needs of the utilities and providing just and reasonable rates to all classes of ratepayers, including those who are not “dual use” customers.

And third, the Commission needs to see such “dual use” customers as an affirmative asset. Thus, a broadly expansive vehicle-to-grid program with carefully designed tariffs should encourage such customers to charge their PEVs at optimal times during the day, both during high use periods when the customer's solar PV installation is providing surplus power to the grid, but when such vehicles can also provide valuable balancing services (such as “reg-up” and “reg-down”), as well as when the charging of such vehicles can take advantage of low, off-peak rates. In other words, the traditional model of PEVs charging during the off-peak periods late at night may no longer make sense for customers with their own solar PV installations, and the Commission needs to carefully study how to optimize the overall benefits that can be provided to the grid by customers who own PEVs as well as solar PV generating facilities.

Because of the range and complexity of the benefits that can be provided to the grid by

such dual use customers, and the likelihood that many early PEV owners will also be PV owners, IREC strongly encourages the Commission to take this issue up as early in this proceeding as is feasible.

(2) There is an additional dimension to this “dual use” customer issue that IREC encourages the Commission to explore, namely the possible role that can be played by “triple use” customers, *i.e.*, those who have PEVs as well as their own solar PV installations, but who have also opted to install on-site battery storage, either for system back-up or to begin the move to a micro-grid-oriented system.

The Commission's recent decision in the Storage OIR<sup>3</sup> recognized the value of customer-sited storage and directed the utilities to seek to obtain 200 megawatts of such customer-sited storage by the end of the decade. Overall, this goal, once achieved, may cover only a small percentage (well under one percent) of California electricity use, but it is a fraction of the State's customer base that can be expected to grow. Given this emerging new segment of California's customer base, as well as the OIR's clear recognition that “the PEV market is rapidly evolving,”<sup>4</sup> it makes a great deal of sense for the Commission to begin the process of evaluating the value and benefits that customer-sited battery storage can provide in avoiding the potential grid impacts of increased EV penetration, especially for utility customers with solar PV on their rooftops and electric vehicles.

The value and benefits that such “triple use” customers can provide needs to be studied and subjected to its own unique analysis, because the nature and scope of vehicle-to-grid services provided by such customers, as well as the characteristics of the tariffs that such customers

<sup>3</sup> See, D.13-10-040, at page 13.

<sup>4</sup> OIR, at page 3.

should qualify for, are likely to be significantly different from those that either customers with PEVs or “dual use” customers with PEVs and rooftop solar PV facilities would qualify for.

### **III. PARTY INFORMATION**

Pursuant to Rule 1.4(a)(2) of Commission Rules of Practice and Procedure and Section 9 of the OIR, IREC seeks party status in this proceeding and designates the following person as its party representative:

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In addition, IREC requests that the following person be added to the service list as information only:

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#### IV. CONCLUSION

The Commission should take the foregoing comments into account as it moves forward to address the issues raised in the OIR. IREC looks forward to participating further to assist the state in fully realizing the potential of PEVs to not only reduce emissions but also smooth the integration of renewable resources and improve overall grid stability.

Respectfully submitted,

/s/ \_\_\_\_\_  
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December 13, 2013