



Vehicle - Grid Integration Initiative Workshop

Date: Tuesday, May 21

Time: 10:00am - 5:00pm

Location: The California Endowment Oakland Regional Office (Main Conference Room, 2000 Franklin St, Oakland)

Meeting Notes:

- Gridworks offered the following definition for VGI:
 - Vehicle - Grid Integration: How we drive electric, drive down costs and drive out emissions.
- Gridworks offered the following principles for VGI Use Case Evaluation methodologies:
 - *Inclusive without prejudice*
 - *Able to:*
 - *leverage available information*
 - *identify and narrow any information gaps*
 - *adapt to new information*
 - *Reasonably efficient to implement, balancing progress, consensus building, time and accuracy*
 - *Technology and business model neutral*
 - *Transparent, simple and clear*
- This definition and principles will be incorporated into a new version of the [VGI Initiative Framing Document](#), along with other input received in our March, April and May Workshops.
 - Stakeholders will receive a revised draft of the framing document by June 14 for review.
 - Stakeholders should bring feedback on the Framing document to the June 25 workshop. That workshop will focus on finalizing the Framing document, thereby setting the stage for the launch of the Joint Agency VGIWG in July.
- CPUC Staff asked for focused thinking on what data sets would be need to successfully complete the upcoming VGIWG. Responses gathered during the workshop are captured below (“Information Needed”).
- Workshop participants offered PG&E feedback on its preliminary Use Case Valuation Methodology. Top-line takeaways were the following:
 - Feedback from several stakeholders suggested the framework should be reoriented to first identify the grid needs and second assess whether VGI can meet them. It has been suggested that the PG&E method reaches the same



conclusion, albeit from a different direction. Further consideration may be warranted.

- PG&E should consider what, if any, additional granularity would benefit the “sectors” (e.g., commercial public charging) and “applications” (e.g., demand charge vs. volumetric rate management), balancing efficiency and inclusivity. Stakeholders acknowledge the framework is already very complex, but struggled to think through certain use cases (e.g., commercial fleets) and interpret certain situations (e.g., aligned vs. not-aligned)
- There are significant data needs to execute this (or likely any) VGI evaluation framework. For example, the type, organization and source of EV charging baselines. A targeted, focused push to identify what we have, what can be shared, and how, may be a valuable next step.

Thank you to PG&E and Karim for updating the Use Case Evaluation Methodology for the group’s consideration. Stakeholders encouraged to provide any further feedback on PG&E’s Use Case Valuation methodology directly to Karim Farhat (K1FX@pge.com)

- Next Meetings:
 - 6/25 – Location: California Endowment (Oakland) – meeting invite will be updated soon with an agenda and other meeting materials.
 - CPUC’s upcoming VGI Working Group dates will be announced soon

Information Needed

- Sources of “reference charging” (baselines, but for the EV profile (only)). What are the sources and how are they derived? Are they measured at the EV or the EVSE?
- What data on pricing/curtailment will be used to establish customer price or dispatch signal(s)?
- What assumption are we making about the underlying power supply (i.e., what electricity is being used and where did it come from)? How does valuation change based on the underlying power supply?
- What is the value of low carbon fuels standard credits (now and in the future)?
- Does Vehicle Miles Travelled (VMT) impact the use case valuation? If so, how are VMT inputs established?
- How responsive are EV customers to price (customer elasticity)?
- When does plug-in/plug-out occur for different customer types (e.g., commuter vs non-commuter)?
- How much energy is needed to support mobility (accounting for different customer types)?

Some of the above information/data may be currently available but accessing/sharing it will be a challenge. If so, how do we get it?