



First Annual

February 28 - March 1, 2023 Los Angeles

V2G Business, Policy and Technology Forum

Addressing Challenges, Achieving the Potential of V2G

www.smartgridobserver.com/V2G

Organized by:



Wood MacKenzie predicts that EV infrastructure investment will take over from solar as the largest DER market by 2025. And within this market, a recent study by EPRI has determined that vehicle-to-grid charging (V2G) can generate over \$670 million to \$1 billion per year in California ratepayer benefits in 2030 -- significantly more than V1G.

The **First Annual V2G Business, Policy & Technology Forum**, February 28-March 1, 2023 in Los Angeles convenes top industry players, working groups, utility professionals and others who are focused on the successful development and implementation of V2G in the United States. This is a neutral Forum for the different V2G stakeholders to come together and work on accelerating V2G standardization and adoption in the US. The goal is to examine obstacles and challenges to effectively achieving the potential of V2G, and to identify appropriate solutions and implementation success strategies for grid operators and other stakeholders across market verticals. If V2G is important to the future of your organization, don't miss this opportunity to shape the future – save the date and plan to join the proceedings.

Topics to be Addressed Include:

- Accelerating V2G in the emerging V1G charging standardization regime
- The coming or stated EVSE/EV communications mandates in CA and DOT
- IEC/ISO 15118 -- what it is and what it isn't
- The value and challenges of V2G
- V2G-AC vs V2G-DC
- V1G -- its value, challenges and relationship to V2G
- The other standards for V2G -- J 3072, UL 1741 SB/SC, IEEE 2030.5, SunSpec Modbus
- V2G Use Cases and Pilot/Demo projects
- V2G in residential charging
- V2G in C&I workplace charging
- Heavy duty vehicles and V2G -- trucks and buses
- Fleets and V2G
- V2G in travel charging
- Cybersecurity considerations in V2G
- Reconciling U.S. and European charging-related technologies, standards, regulations, and/or stakeholder expectations
- Mapping V2G-associated standards to a common CIM
- Vehicle to Home (V2H) requirements vs V2G/V2B

Host Utility:



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Forum Audience:

- Network strategists and executives at investor-owned, municipal, and rural utilities
- Grid operations engineers and planners
- EV program managers and fleet managers
- EV and EVSE manufacturers
- Charging network operators
- Regulatory and standards professionals
- Technology and software vendors

Program Committee



Conference Co-Chair
James Mater
Co-Founder and
Director of Strategy,
Smart Grid
QualityLogic



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Sunil Chhaya, Ph.D.
Senior Technical Executive
EV-Energy System
Integration
**Electric Power Research
Institute**

Agenda

Note: Subject to change.

Tuesday, February 28, 2023

8:00 - 9:00 am

Registration and Welcome Coffee

9:00 - 9:30 am

Opening Keynote Address

9:30 - 11:00 am

Stakeholder Perspectives on Value Proposition for V2G

One of the big issues with V2G is the business side: How does the vehicle owner get paid? What is the value of V2G for utilities, EV owners, fleet operators, EV charging network operators - and the grid as a whole? This session explores the potential value of V2G for various stakeholders across the value chain. What are the drivers? Where is the money coming from to make V2G a reality? Panelists will discuss the most promising use cases for making V2G a practical reality going forward.

- Jeff Lu, Air Pollution Specialist, **California Energy Commission** (*moderator*)
- Chris Irwin, Program Manager for Transactive Energy, Communications and Interoperability in Smart Grid, **U.S. Department of Energy**
- Shaun Tuyuri, Sr. Technical Leader - Electric Vehicle Infrastructure, **EPRI**
- Jordan Smith, P.E., Consulting (Principal) Engineer, Grid Technology Innovation, **Southern California Edison**
- Representative from **Ford Motors** *invited*

11:00 - 11:30 am

Networking Coffee Break

11:30 - 12:15 pm

Follow the \$: Delving into the Value of the Top Business Models for V2G

This session will deep-dive into the key business models for residential V2G, workplace/public parking V2G, and fleets + heavy-duty trucks and buses V2G. Current utility trials in New York, Massachusetts, New Hampshire and Nevada will be examined with an eye toward key lessons learned to date. The goal here is to identify a pathway to profitability for V2G and how key industry entities can work today to make that a reality.

- Zach Woogen, Policy Manager, **Vehicle-Grid Integration Council (VGIC)**

12:15 - 1:15 pm

Lunch Break

1:15 - 2:45 pm

What is V2G About?

This session focuses on the technical aspects and implications of V2G. IEEE 1547, SAE J3072, ISO 15118, OCPP, etc., understanding the utility requirements for grid control in a V2G application, where do the different standards fit, etc. Also, we must have the communications infrastructure in place when it comes time to do V2G at scale. The objective here is to look at how V2G will impact network operations, and how we must plan accordingly.

- Michael Bourton, Vice President, Business Development, **Kitu Systems**
- David Narang - Section Manager, Applied Power Systems, **National Renewable Energy Laboratory**
- Sunil Chhaya, Ph.D., Senior Technical Executive -- EV-Energy System Integration, **EPRI** *invited*
- Stefan Voit, **E:E Consulting GmbH** *invited*
- Joshua McDonald, Consulting Engineer, **Southern California Edison** *invited*

2:45 - 3:15 pm

Networking Coffee Break

3:15 - 4:00 pm

What Are the Obstacles to V2G Success, and How Do We Address Them?

There are competing standardization activities going on in SAE and other industry groups, and these must be discussed. Currently there are too many camps: ISO 15118 and 2030.5 both adequately do their job, but they are not harmonized. There is no cooperation between the various groups, and until there is no money will flow. This session brings together the perspectives of EV manufacturers, utilities, and other industry stakeholders to hash out the key challenges for V2G success, and how best to overcome them.

- Lydia Krefta, Acting Director, Clean Energy Transportation, Regulatory, Compliance and Pilots, **PG&E**
- Ryan Harty, Division Head, Energy Business Development, **American Honda** *invited*

4:15 - 5:15 pm

Facilitated Breakout Sessions, Round 1: Identifying and Ranking Challenges

Focused discussion sessions among attendee subgroups zeroing in on the 1) Technical, 2) Business, and 3) Policy & Regulatory critical challenges we need to address in order to move forward with V2G. The goal is to interact as a group in facilitated breakout table discussions and reach consensus on what the main challenges are, in rank order. Facilitators are:

- Elise Keddie, Senior Project Program Analyst, **Allegheny Science & Technology**, and Contractor, **U.S. Department of Energy Vehicle Technologies Office**
- James Mater, Co-Founder and Director of Strategy, Smart Grid, **QualityLogic**
- Zach Woogen, Policy Manager, **Vehicle-Grid Integration Council (VGIC)**
- *Additional facilitators TBA*

6:00 - 7:30 pm

Networking Drink Reception

Wednesday, March 1, 2023

8:00 - 9:00 am

Morning Coffee

9:00 am - 9:30 am

Opening Panel: Reporting Out Key Findings of Round 1 Facilitated Breakout Sessions

- Discussion Group Facilitators *see above*

9:30 - 10:30 am

Facilitated Breakout Sessions, Round 2: Identifying Solutions

Another round of breakout discussion sessions on Technical, Business, and Policy & Regulatory areas -- this time focusing on identifying solutions. Facilitators are:

- Discussion Group Facilitators *see above*

10:30 - 11:00 am

Networking Coffee Break

11:00 am - 12:00 pm

Reporting Out Key Findings of Round 2 (Solutions) Breakout Sessions

- Discussion Group Facilitators *see above*

12:00 - 1:00 pm

Keynote Lunch

Summary of the V2G Forum's progress, key findings, and next steps

- James Mater, Co-Founder and Director of Strategy, Smart Grid, **QualityLogic**

1:00 - 4:00 pm

Technology Working Group Meetings

Host Utility



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Analytics Fire
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Early bird standard pass (available until January 31, 2023. \$995 afterward)

\$795.00

Early Bird discount pass (\$695 after January 31)

\$495.00

(For utilities, academic, government and Non-Profit Organizations)

To register securely online, visit: www.smartgridobserver.com/V2G/register.htm