

Engaging the Customer in the V2G Equation

www.V2gforum.com

The industry is in the early stages of realizing the potential of vehicle-to-grid (V2G): significant challenges include standards harmonization, identifying use cases and business models, the complexity of V2G versus other DERs, competing jurisdictions and more. Working through these issues and enabling utilities, automakers, charging network operators and others to achieve the V2G promise is of keen interest.



The 3rd edition of the **V2G Business, Policy & Technology Forum**, April 30 – May 2, 2024 in San Diego will convene top industry players, working groups, utility professionals and others who are focused on the successful development and implementation of V2G in the United States. If V2G is important to the future of your organization, don't miss this opportunity to shape the direction of this key technology.

The conference theme is Engaging the Customer in the V2G Equation -- What are the motivations and key factors that would attract and sustain the involvement of all customer segments in a thriving V2G ecosystem? The event dives deeply into the V2G customer segments and use cases, including residential, fleet, commercial / workplace, school bus and the aggregators which help to manage the operational aspects of this domain. We dedicate a total of three hours to direct involvement in breakout working sessions to fully immerse the participants in each of the panel topics.

Forum Audience:

- Executives at investor-owned, municipal, and rural utilities
- Automotive professionals interested in EV charging
- Grid operations engineers and planners
- EV program managers and fleet managers
- EV and EVSE manufacturers
- Battery manufacturers
- Charging network operators
- Regulatory and standards professionals
- Technology and software vendors

90-minute Plenary Sessions with multiple panelists will be held on each of the following topics:

- 1) Technology Platforms and Standards for Scaling V2G
- 2) Fleet and Workplace V2G
- 3) Hammering out the Business and Regulatory Case for V2G
- 4) How to introduce win-win-win value in Residential V2G
- 5) Results of the Southern California Edison V2G EPIC Project

Host Utility:





Organized by:



Agenda

Tuesday, April 30, 2024

Overall Theme: V2G Education and Background

12:00 - 5:00 pm Registration and Check-in

1:00 - 4:00 pm

Pre-Conference Workshop 1



Vehicle-to-Grid 101: Standardization and Communication Protocols -- Preparing a Road for V2G

- The hurdles to mass deployment of vehicle to grid in the North America electrical system
- The state of standardization of technologies and policies for V2G
- The key technology standardization activities and progress
- The challenges in implementing V2G in the emerging charging infrastructure
- How to participate in designing and building a V2G infrastructure in North America

1:00 - 1:45 pm	Session 1: Introduction to V2G and Challenges to Mass Deployment
1:45 - 2:30 pm	Session 2: Technical Standards for V2G and State of Standardization
2:30 - 2:45 pm	Coffee Break
2:45 - 3:30 pm	Session 3: The V2G Technology Standardization Challenge: Competing Charging
	Infrastructures
3:30 - 4:30 pm	Session 4: How to Contribute to Realizing the V2G Potential
4:30 - 5:00 pm	Discussion and Q&A

Workshop Facilitator:



James Mater

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

<u>profile</u>

1:00 - 4:00 pm Pre-Conference Workshop 2 Vehicle-to-Grid 101: Policy and Regulatory Landscape -- Rules of the Road to V2G

- The state of utility regulation, transportation sector regulations, and related policies that can support or challenge V2G projects
- Key ongoing V2G policy development activities and progress
- Building a comprehensive, consistent, and sustainable VGI and V2G policy landscape in the U.S.
- The challenges in implementing V2G within the emerging charging infrastructure priorities
- Utility rate design options and trends for V2G

1:00 - 1:45 pm	Session 1: Introduction to VGI, V2G, and Challenges to Mass Deployment
1:45 - 2:30 pm	Session 2: Utility Interconnection Rules, Procedures, and Best Practices
2:30 - 2:45 pm	Coffee Break
2:45 - 3:15 pm	Session 3: The V2G Business Model Challenge: Unlocking Fair V2G Compensation
	and Supporting Market Transition
3:15 - 4:00 pm	Session 4: How to Contribute to Realizing the V2G Potential

view detailed agenda

Workshop Facilitator:



Zach Woogen Senior Policy Manager Vehicle-Grid Integration Council (VGIC) profile

4:00 - 6:00 pm Networking Drink Reception

Wednesday, May 1, 2024

Overall Theme: Engaging the Customer in the V2G Equation

What are the motivations and key factors that would attract and sustain the involvement of all customer segments in a thriving V2G ecosystem?

8:00 - 9:00 am Morning Coffee

9:00 am - 9:30 am Opening Keynote Address



Joel Levin Executive Director Plug In America

9:30 am - 10:45 am Scaling of V2G: Technology Platforms, Standards and Interoperability

- Progress towards standardization of V2G technology
- Progress towards interoperability (standards adoption, certifications and maturity)
- Progress on utility program development (tech infrastructure for managing V2G)
- Critical path challenges to getting to V2G



Moderator: Danielle Weizman Business Development Manager, Clean Transportation San Diego Gas & Electric



Timothy Zgonena Principal Engineer, Distributed Energy Resources Equipment and Systems **UL** profile



Jordan Smith, P.E. Consulting (Principal) Engineer, Grid Technology Innovation Southern California Edison

<u>profile</u>

profile



Andrew Price Senior Business Development Manager Clean Power Research profile



Gordon Lum Chief Technology Officer Kitu Systems profile

10:45 - 11:15 am Networking Coffee Break

11:15 am - 12:30 pm

Fleet and Workplace Charging: What do fleet and workplace owners/operators think about V2G?

- Understand current thinking/plans for V2G among fleet/workplace owners and operators
- What is the potential value (to fleet/workplace owners/operators, utilities, ratepayers) of fleet/workplace V2G
- What do they need to accelerate their plans for adopting V2G technology and business?



Jacqueline Piero US Head of Policy & Regulatory The Mobility House



Ralph Adams V2X Lead & Director of Utility Partnerships BorgWarner profile

Additional panelists TBA

12:30 - 1:30 pm Lunch Break

1:30 - 3:00 pm

How to Introduce Win-Win-Win Value in Residential V2G

- What is the potential value of residential V2G?
- What are the critical elements that need to come together to make residential V2G attractive for customers, utilities, vendors and others?
- Progress on addressing the factors for residential V2G



Moderator: Sarah Swickard Vehicle Grid Integration Manager PG&E profile



Alissa Harrington Automotive and Charging Partnerships WeaveGrid profile



profile

Alex Pawlowski Sr. Regulatory Strategy Specialist Product Strategy & Mobility Kia



Dan Fletcher Founder and Head of Ecosystems dcbel profile

3:00 - 3:30 pm Networking Coffee Break

3:30 - 5:00 pm

Roundtable Discussion Groups I: Attendee introductions and views on top challenges facing V2G -- Progress to date since first V2G Forum

5:00 - 7:00 pm Networking Drink Reception

Thursday, May 2, 2024

8:00 - 9:00 am Morning Coffee

9:00 am - 10:30 am

Hammering Out the Business and Regulatory Case for V2G

- Progress on developing policy and business cases for V2G
- Who is working on this issue

profile

- What can be done at the national and state levels to accelerate development of policy and economic incentives for V2G?
- How do we address the compensation issue for various stakeholders?



Moderator: Blake Heidenreich Strategic Advisor Transportation Electrification Southern California Edison



Stephen Lassiter Public Policy Director Sunrun profile



Rima Oueid Senior Commercialization Executive, Office of Technology Transitions **U.S. Department of Energy**



Steve Letendre, PhD Senior Director of Regulatory Affairs Fermata Energy profile



Zach Woogen Senior Policy Manager Vehicle-Grid Integration Council (VGIC) profile

10:30 - 11:00 am Networking Coffee Break

11:00 - 12:30 pm

Roundtable Discussion Groups II: Interest group discussions by topic: V2G national policy, V2G AC, Cyber Security, Utility Movement from Pilot to Deployment, etc.,

12:30 - 1:30 pm

Lunch Break

1:30 - 3:00 pm Results of the Southern California Edison V2G EPIC Project

- V2G AC, Cyber Security, and Requirements Harmonization working group reports
- V2G EPIC project findings and recommendations



Jordan Smith, P.E. Consulting (Principal) Engineer, Grid Technology Innovation Southern California Edison

<u>profile</u>



John H. Holmes Paratelic Systems Sustainability Business Innovation American Honda Company



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

profile

profile



Dr. Glenn Skutt Chief Technology Officer Fermata Energy

3:15 - 4:15 pm Working Group Discussion: Making V2G Happen -- How do we do it?



"Great! Didn't think I could learn much more on the topic but the Forum was very enlightening."

- Joshua McDonald, Consulting Engineer, Southern California Edison

"Excellent conference. Gathering of so many diverse experts provided a clearer statement of problems and gaps but above

all focused on solutions. Great networking!" - Bjoern Christensen, Managing Director, Next-Dimension Advisors

"Great attendance and mix of attendees"

- Russel Vare, Auto OEM Partnerships, Kaluza



"Excellent, outstanding! Relevant, focused and high-value" - Ted Witham, PE, Eaton Corporation

"Very informative. The ability to talk to experts in the field as well as meet potential partner was the most valuable aspect" - Shannon Anderson, Senior Planner, EV Infrastructure and V2X Strategy, Nissan North America

"Everything was well organized, ran smoothly, and was on time. Lots of great discussion" - Sammy Nabahani, Solutions Engineer, WeaveGrid



"Really glad I attended -- good connections and ideas" - Greggory Kresge, Senior Manager, Utility Engagement and Transportation Electrification, World Resources Institute

"Excellent. The wealth of experience present was terrific, beakout sessions helpful, and networking was essential"

- Brian Gregory, Compliance Leader, Emporia Energy

"A great conference to hear from industry-leading contributors and the advancement and needs of the V2G community. Additionally, a good networking space."

- Nathan Wang, Product UL Solutions

"Great to see people in person who are <u>highly involved</u> in V2G"

- Yukihiro Hatagishi, EV Electronics Lead / V2X OBC, Diamond Electric Mfg. Corporation

Past Participants Include

ABB E-Mobility **AIO Electric** Alliance for Automotive Innovation American Center for Mobility Autel Energy Automotive OEM BC Hydro **BMW AG** BorgWarner Inc California Air Resources Board California Energy Commission CALSTART CHAdeMO NA **Chariot Energy Chrysler Group LLC Customized Energy Solutions** CybSecBCML dcbel **Dean Taylor Consulting Dejalytics Inc.** DEKRA SE Delta Electronics **DER Security Corp** Derapi **Diamond Electric** Department of Energy Vehicle **Technologies Office** DTE Energy Eaton ElaadNL **Electric Power Research Institute** eMobility Advisors **Emporia Energy Energy and Environmental** Economics, Inc. **Energy Profit LLC** Enetrics

Ennovara Enphase Energy Entergy **EPC** Power ev.energy EVEnviro.net Fermata Energy **Flex Power Control** Ford Motor Company Fronius USA, LLC General MicroGrids **General Motors GM** Energy Honda **Hoosier Energy** Idaho National Laboratory IEEE IEMS **Innovation Core SEI Integrant Analytics Ltd** Interstate Renewable Energy Council (IREC) Kaluza **Keysight Technologies** Kitu Systems Landis+Gyr Lucid Motors Lumian Foundation Mercedes-Benz R&D North America Michigan Energy Innovation **Business Council** National Grid National Renewable Energy Laboratory (NREL) Next-Dimension NineDot Energy Nissan North America

Nuvve Pacific Gas and Electric Pacific Northwest National Laboratory **Paratelic Ventures** Peninsula Clean Energy PG&E QCells QualityLogic Quanta Technology **Rhombus Energy** Rimot S&P Global Salt River Project San Diego Gas & Electric Siemens SMA America Smart Electric Power Alliance SMUD Southern California Edison Stellantis Sunnova Sunrun TeMix Inc. Tesla The Climate Center The Mobility House Toyota U.S. Department of Energy UL University of Delaware Utilidata Vehicle-Grid Integration Council WeaveGrid WiTricity Corporation World Resources Institute **Xcel Energy**





Sponsorship Options

Platinum - \$6,000 - Recognition as official Lunch, Wi-Fi or lanyard sponsor (website, onsite signage and tent cards) - Tabletop exhibit space - 4 complimentary passes - Top-level logo visibility on event website and in all marketing communications - Top-level logo recognition throughout the conference, during breaks and session introductions - Virtual Exhibits display page / booth (available for full year after close of Summit) - Opportunity to help guide overall program - White paper or executive interview published on event website - Attendee list - Special introductions and one-to-one meetings facilitated by SGO - Corporate description with link on Sponsors page - Post-conference communication with attendees _____ Gold - \$4,000 - Recognition as official Coffee Break sponsor (website, onsite signage and tent cards) - Tabletop exhibit space - 3 complimentary passes - Attendee list - Virtual Exhibits display page / booth (available for full year after close of Summit) - Special introductions and one-to-one meetings, facilitated by SGO - Logo visibility on event website and in all marketing communications - Logo recognition throughout the conference, during breaks and session introductions - Corporate description with link on "Sponsors" page - Post-conference communication with attendees _____ Silver - \$3.000 - Tabletop exhibit space - 2 complimentary passes - Attendee list - Virtual Exhibits display page / booth (available for full year after close of Summit) - Prominent logo visibility on event website and in all marketing communications - Prominent logo recognition throughout the conference, during breaks and session introductions - Corporate description with link on "Sponsors" page Bronze - \$2,000 - 1 complimentary pass - Attendee list - Virtual Exhibits display page / booth (available for full year after close of Summit)

- Prominent logo visibility on event website and in all marketing communications
- Prominent logo recognition throughout the conference, during breaks and session introductions
- Corporate description with link on "Sponsors" page

To arrange your participation, contact:

Event Partners



Founded in late 2017, the Alliance for Transportation Electrification is a nonprofit trade association uniting a broad coalition of utilities, manufacturers, electric vehicle supply equipment vendors, engineering firms and others to promote electric vehicles in state-level policy across North America. Visit www.evtransportationalliance.org



Vehicle Grid Integration Council (VGIC) is a national 501(c)(6) membership-based advocacy group committed to advancing the role of electric vehicles and smart EV charging through policy development, education, outreach, and research. Visit www.vgicouncil.org

The Smart Electric Power Alliance (SEPA) is a nonprofit organization that envisions a Smart Electric **Power Alliance** carbon-free energy system that is safe, affordable, reliable, resilient and equitable. SEPA has a very specific role in the journey towards carbon-free. Our mission is to accelerate the electric power industry's transformation to a modern energy future through education, research, standards, and collaboration. Visit www.sepapower.org



School Bus INITIATIVE



In collaboration with partners and communities, WRI's Electric School Bus Initiative aims to build unstoppable momentum toward an equitable transition of the entire U.S. school bus fleet to electric

by 2030, bringing health, climate and economic benefits to children and families across the country and normalizingelectric mobility for an entire generation. For more information on the Initiative, visit www.wri.org/initiatives/electric-school-bus-initiative



Founded in 1972, EPRI is the world's preeminent independent, non-profit energy research and development organization, with offices around the world. EPRI's trusted experts collaborate with more than 450 companies in 45 countries, driving innovation to ensure RESEARCH INSTITUTE the public has clean, safe, reliable, affordable, and equitable access to electricity across the globe. Visit www.EPRI.com



The SunSpec Alliance is a trade alliance of more than 170 solar and storage distributed energy industry participants, together pursuing information standards to enable "plug & play" system interoperability. SunSpec standards address operational aspects of

solar PV power and energy storage plants on the smart grid -- including residential, commercial, and utilityscale systems. Visit www.sunspec.org



The American Center for Mobilityoffers a one-of-a-kind global development center to transform the way industries advance safe, sustainable, and secure mobility technologies. Our vision is to enhance

the quality of our lives through the enablement of future mobility solutions. ACM's approach is to achieve growth and prosperity for our ecosystem through partnerships. Visit www.acmwillowrun.org



For over 40 years, IREC has made clean energy possible for millions of Americans through cutting-edge solutions that advance renewable energy, electric grid modernization, and energy efficiency. Today, our work continues in response to the

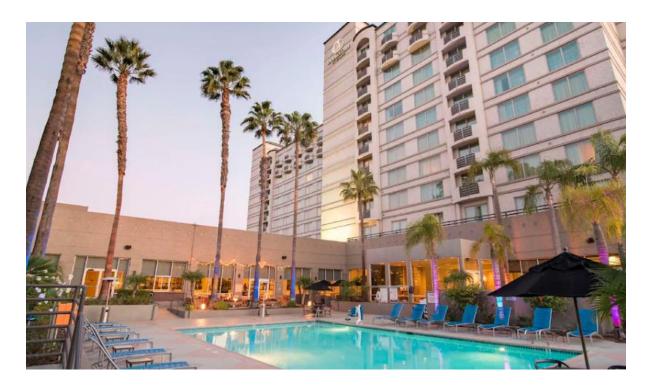
urgent need to transition to clean energy -- to mitigate climate change, improve the resiliency of our communities, and ensure all people benefit from a just transition to a clean energy future. Visit www.irecusa.org

Event Venue:

DoubleTree by Hilton San Diego Mission Valley

7450 Hazard Center Dr, San Diego, CA 92108

>> Directions in Google Maps





About the Organizer



<u>The Smart Grid Observer</u> is an online information portal and weekly e-newsletter serving the global smart energy industry. SGO hosts a number of conferences each year focused on issues of high relevance for the global clean energy industry. The goal

is to foster information exchange and high-quality, one-to-one networking among industry professionals. Topics include EV charging infrastructure, grid modernization, V2G, cyber security, carbon capture and storage, EV battery innovation and more. For a list of upcoming and recent Forums, <u>click here</u>

Registration

Early Bird Main Conference, Standard Rate - Equipment and software providers, consultants, and services providers	\$895.00
Available until March 29, 2024 - \$995.00 thereafter. Access to sessions, lunches and networking coffee breaks on May 1-2, as well as presentation PDFs and attendee list	
Early Bird Main Conference – utilities, academic, government and non-profit organizations	\$795.00
Available until March 29, 2024 - \$895.00 thereafter. Access to sessions, lunches and networking coffee breaks on May 1-2, as well as presentation PDFs and attendee list	
Early Bird Conference plus workshop, Standard Rate - Equipment and software providers, consultants, and services providers	\$1,290.00
Available until March 29, 2024 - \$1,390.00 thereafter. Includes pre-conference workshop on April 30	
Early Bird Conference plus workshop – utilities, academic, government and non-profit organizations	\$1,190.00
Available until March 29, 2024 - \$1,290.00 thereafter. Noteorg, .edu or .gov email address required for non-utility registrants	
Workshop only	\$495.00

Register securely online at <u>www.v2gforum.com/register</u>