

CONFERENCE DAY 3 – 04 MARCH 2021
SPECIAL PLENARY - 2
GRID INTEGRATED VEHICLES (GIV) AND STANDARDS FOR GIVs
Venue & Time

| | |
|-------|--|
| Venue | Plenary Hall |
| Time | New York 08:30 ~ 10:30 Paris 14:30 ~ 16:30 India 19:00 ~ 21:00 Tokyo 22:30 ~ 00:30 |

Session Background

Vehicle to grid (V2G) system would allow the battery of the electric vehicle to inject power to the grid to support the grid when required. V2G can be of two type i.e., on vehicle AC V2G and off vehicle DC V2G and requires chargers configured with grid integration software, smart charging controller and two-way communication option for exploiting its full potential. In addition, vehicle to building (V2B) or vehicle to home (V2H) functionalities can also provide flexibility to the grid by providing power to the building or home from the stationary electric vehicle batteries at the time of peak demand. This will open up new potential for distribution utilities in managing the load by aggregating large number of EVs as virtual power plants (VPPs). Although many of the activities like peak shaving, load levelling etc. can be achieved through smart charging (V1G), V2G will help EVs to act as generation source and claim additional financial benefits by providing ancillary services to the grid and participating in the power market transactions.

Discussion Points:

1. V2G technology evolution and present status
2. Challenges in rollout of V2G functionality in all EVs
3. Incentives for the EV owners to participate in V2G
4. V2G as Ancillary Services for grid support - advantages and challenges
5. Global use cases and business models

| | |
|---------------------------|---|
| Chair | KR Jyotilal , Principal Secretary -Transport, Kerala |
| Moderator | Ravi Seethapathy , Chair of ISGF Working Group on RE and Microgrid; and Chairman, Biosirus, Inc, Canada |
| Theme Presentation | Rodney McGee , Chief Engineer, University of Delaware and Committee Chair, Society for Automotive Engineers |
| Speakers | <ol style="list-style-type: none"> 1. Rajit Gadh, Director- Smart Energy Research Centre, UCLA, USA 2. Shashi Verma, Chief Technology Officer, Transport for London, UK 3. Marc Petit, Professor, Centrale Supélec, France 4. Lonneke Driessen- Mutters, Executive Director, OCPP Alliance 5. Ashok Sarkar, Senior Energy Specialist, World Bank 6. Sajid Mubashir, Scientist G, Department of Science and Technology 7. Sandeep Bangia, Head, Electric Vehicle and Home Automation Division, The Tata Power Company Limited 8. Makoto Dave YOSHIDA, Secretary General, CHAdeMO Association |

Key Takeaways by Moderator

Session Coordinator: Anand Singh | +91 9925218036 | anand@indiasmartgrid.org

Akshay Kumar | +91 9354907399 | akshay.kumar@indiasmartgrid.org