

Nuvve Corporation's Vehicle-to-Grid (V2G) Platform Enables New Phase of Project Providing Grid Services in Japan

V2G technology leader's solution is enabling the marketization of grid services in project led by Toyota Tsusho Corporation in Japan

SAN DIEGO, CA – September 9, 2020 – [Nuvve Corporation](#), a San Diego-based, green energy technology company and the global leader in vehicle-to-grid (V2G) technology, is providing the key technology for a vehicle-to-grid (V2G) project in Japan aimed at establishing the marketization of electricity supply-demand control by 2021. The project is being led by Nuvve investor, Toyota Tsusho Corporation alongside Chubu Electric Power Grid Co., Inc, a Transmission System Operator (TSO) in Japan, to demonstrate how plug-in hybrid electric vehicles and battery electric vehicle (PHEV/BEV) batteries can be aggregated into a virtual power plant (VPP) to provide grid services that help balance supply and demand of electricity.

Past demonstrations in 2018 and 2019 using Nuvve's V2G GIVe™ software platform have proved the feasibility of providing balancing power necessary for controlling frequency and adjusting the balance of demand and supply through multiple PHEV batteries when charging.

In this new project phase, Toyota Tsusho Corporation will demonstrate the grid services with Toyota Motor Corporation vehicles such as a Prius PHEV when parked using V2G at one of the production factories. Supply and demand signals will be received through an OpenADR protocol from the supply-demand test server. At the same time, the GIVe™ platform will be connected to the Toyota Motor Corporation Factory Energy Management System (FEMS) to provide energy management from the vehicles to and from the factory depending on the energy load, enabling an efficient use of energy at the production plant.

In addition, the companies will build a system fulfilling security and other requirements needed when entering the electricity supply-demand control market to create a mechanism allowing companies managing electric vehicles to participate in the supply-demand control market at a low cost.

"Nuvve's ability to deliver precise and secure services to electric utilities is a hallmark of our product development and planning," said Gregory Poilasne, chairman and CEO of Nuvve Corporation. "Using industry protocols to communicate data will help electric utilities leverage the flexibility from electric vehicle batteries. We have shown the benefits recently by integrating with digital substations or integrating with market control systems such as PJM in the United States. These integrations give us a unique global understanding of utilities and enable us to deliver key grid services using OpenADR."

Nuvve's GIVe™ platform has proven its ability to deliver multiple services both to the grid and to local buildings or energy systems connected to V2G-charging vehicles. The overall outcome is a more efficient use of the batteries and energy locally and system wide. And, V2G technology helps integrate renewable

energy sources to the grid by enabling EV batteries to store energy and then discharge the stored energy at a later time, such as during peak demand hours. This latest phase of the project in Japan will further demonstrate how V2G can bridge the gap between the transportation and energy sectors and reduce our overall need for fossil-fuel sourced energy.



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About Nuvve Corporation

Nuvve Corporation is a San Diego-based green energy technology company whose mission is to lower the cost of electric vehicle ownership while supporting the integration of renewable energy sources, including solar and wind. Our proprietary vehicle-to-grid (V2G) technology – Nuvve’s Grid Integrated Vehicle (GIVe™) platform – is refueling the next generation of electric vehicle fleets through cutting-edge, bidirectional charging solutions. Since our founding in 2010, Nuvve has been responsible for successful V2G projects on five continents and is deploying commercial services worldwide. For more information please visit www.nuvve.com or follow us on [LinkedIn](#) and [Twitter](#).

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