

**Installation of Rapid Charging System for EV (Electric Vehicles) in US
– JFE Engineering's "RAPIDAS" – Adopted as the World's Most
Innovative Technology!! –**

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JFE Engineering Corporation

JFE Engineering Corporation (President: Sumiyuki Kishimoto; Head Office: Chiyoda-ku, Tokyo) recently installed the "RAPIDAS"^{*1} Rapid Access System for EV (Electric Vehicle) Charging at two locations, in San Diego, California and Portland, Oregon on the West Coast of the United States.

In San Diego, California, JFE Engineering was the first Japanese company to receive an order from San Diego Gas & Electric (SDG&E), which is a major gas and electric power utility, and installed a RAPIDAS unit on the grounds of that company. Installation of the RAPIDAS system was based on a cooperation agreement with VLI-EV Partners (located in San Diego), which is involved in infrastructure improvement and consulting in connection with energy network systems concluded in December of last year. The JFE RAPIDAS rapid charging system can be used in electric power load leveling, and does not require large power (50 kW or more with conventional systems) when receiving power. This makes it possible to avoid the additional "demand charge"^{*2} for power used during peak time periods, and was a decisive factor in the decision to adopt the JFE technology.

In Portland, Oregon, the city has created a "Electric Avenue"^{*3} in downtown Portland, which is open to the general public and features several types of conventional chargers and the JFE RAPIDAS. JFE's RAPIDAS is the first product of Japanese company to be selected for this project, and was installed in February of this year. JFE Engineering is conducting a demonstration test by collecting and analyzing data on the condition of use, condition of control, etc. in collaboration with Kanematsu Corporation, with the aim of introducing new types of charging systems into the market and expanding sales in the United States.

The RAPIDAS system, which includes a storage battery, can perform normal rapid charging with a small power source of 20 kW.^{*4} In comparison with conventional

systems, this substantially reduces installation costs for power receiving equipment at the installation location, construction of special power cables, etc.

On the other hand, the United States, and particularly the West Coast, has suffered power shortages in recent years, and there is concern that the relatively fragile power transmission and distribution network may be an obstacle to popularization of EVs. The JFE RAPIDAS is especially well-suited to these power conditions in the US, as it can use a small power source and can also be "loaded" during off-peak, night-time hours. As a result, the RAPIDAS has attracted strong interest from the US government, energy-related companies, and others as a world's top-class EV charging system.

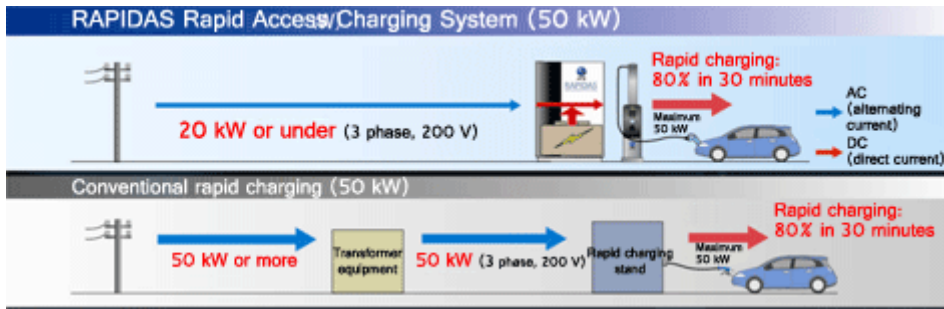
In the future, JFE Engineering will actively present proposals for the RAPIDAS in the United States, and will also work toward popularization of the new "Super RAPIDAS," which the company has developed as a next-generation charging system that can deliver "80% of full charge in only 8 minutes."

The RAPIDAS Rapid Access Charging System for EV developed by JFE Engineering
*1 Corporation can deliver an 80% charge in 30 minutes under specifications conforming to the CHAdeMO standard.

Although differing depending on the region, under the "demand charge" rate
*2 system for electric power, a set charge is added to the base rate for power consumed during peak times, when the largest amount of power is used, during one month.

"Electric Avenue" is an EV charging demonstration project which is being promoted jointly by Portland State University (PSU), the electric power utility
*3 Portland General Electric (PGE), and the City of Portland. Several types of EV charging systems have been installed along the "Electric Avenue" in front of PSU in order to promote research on EVs and charging, and introduce these technologies and urban planning.

*4 The following schematic diagram shows the concept of the RAPIDAS charging system using small power receiving.



RAPIDAS charging stand on Portland's "Electric Avenue."

