*For Immediate Release*

**Delta’s New EV Charging Station Yokohama, Developed with Idemitsu Kosan**

**as a New Business Model for Service Stations, to Assist the City Government’s**

**Disaster Response**

*TAIPEI, September 2nd, 2020 —* Delta, a global leader in power and thermal management solutions, announced today its new Delta electric vehicle (EV) Charging Station Yokohama, jointly developed and operated by Delta and Japanese energy company Idemitsu Kosan Co., Ltd. (hereinafter referred to as "Idemitsu"), is capable of assisting as a disaster response base for the city of Yokohama by serving the local government’s emergency response EVs with charging services as well as with EV battery electricity deployment to the grid during disasters. The former Idemitsu gas station operates under the theme “Park and Charge”, creating a new business model for traditional gas station operators by enabling a smart retail and smart energy ecosystem that integrates Delta’s energy storage, power conditioning system, EV chargers, DeltaGrid® IoT energy management system, the Delta-patented EV charging payment EZQC App, as well as Delta’s retail IoT solutions and consumer brand Innergie’s products that enable the Innergie CAFÉ boutique café*.*

Mr. Ping Cheng, CEO of Delta Electronics, Inc., said, “In the energy-intensive fields of buildings and transportation, Delta provides IoT-based smart energy-saving solutions that enable smart energy management and a safer, healthier and more comfortable living environment in cities. We feel honored that this innovative station can contribute to Yokohama’s disaster response initiatives. The idea of ​​this EV charging demonstration station came from Delta's exhibition at COMPUTEX Taipei 2018 and is in line with our corporate mission, ‘To provide innovative, clean and energy-efficient solutions for a better tomorrow’. By enabling not only a microgrid with our energy storage and EV charging solutions, but also an IoT-based retail store, we enable reduced operating costs, substantial energy savings and a comfortable shopping environment.”

Idemitsu Kosan recognized that the development of charging infrastructure has become an important issue for the popularization of electric vehicles. In order to make it more convenient for customers and provide sustainable services, Idemitsu launched demonstration experiments at its gas station site, providing parking space and Delta’s electric vehicle chargers. Car charging and other services allow customers who come to charge to spend a comfortable time in the cafe, while combining with the surrounding business facilities to create a new customer experience.

C.H. Ko, executive director of Delta Electronics (Japan), pointed out, “After Japan stepped into power liberalization, the energy industry has been facing the transformation and challenges of power supply decentralization and carbon reduction. How to meet the requirements of energy transition and establish a balance with Japan’s 3E+S (safety, energy security, economic efficiency, and environment) energy policy objectives has become the biggest challenge. This EV charging demonstration station jointly created by Delta and Idemitsu integrates Delta’s energy storage, commercial power conditioning system, and EV charging solutions through DeltaGrid® IoT management solution to dispatch energy according to different scenarios. Delta’s V2B (Vehicle-to-Building) bi-directional EV charger can also turn electric vehicles into virtual power plants and become one of the sources of power supply. They are connected our proprietary EV charging payment system to construct a new business model where mobility and the utility of power infrastructure are compatible.

The Delta EV Charging Station Yokohama combines Delta's energy infrastructure solutions and low-carbon transportation technologies to provide industry players with complete one-stop-shop solutions. In terms of safety, Delta equipped the station with various sensors to monitor for water leakage, water levels, and earthquakes in the electrical room on the first floor. This was configured so that in the event of a natural disaster, the electrical system will automatically cut power to avoid accidents. The Station integrates Delta's electric vehicle charging, battery energy storage system and power conditioning system through the DeltaGrid® energy management system. It is connected with the Delta-patented EZQC App payment system to perform charging and discharging, mobile payment, surrounding business activities, management monitoring and other service functions with simple registration and verification processes. The high-rise and bright Innergie CAFÉ inside the Station provides not only delicious coffee but also Innergie fast charging for mobile devices. High-resolution projection equipment are also installed to project dynamic paintings in the store; while the retail IoT environmental management system provides data analysis and smart management services through the management platform to create a comfortable shopping environment for smart retail stores. The monitoring center is located on the second floor for site managers to remotely monitor operations including the electricity usage of chargers and operation status of environmental equipment.

Delta provides complete product lines and modular solutions at the Delta EV Charging Station Yokohama. If other gas stations or malls plan to adopt this model in the future, modular adjustments can be made according to actual requirements and specific environmental conditions, so that when new cases are pushed in the future, the time for planning and deployment can be reduced significantly.

Main Delta solutions applied at the Delta EV Charging Station Yokohama are as follows:

**Microgrid Solution**

* EV Charging: Three sets of 25kW DC output DC Wallbox wall-mounted chargers and 1 set of V2B bi-directional electric vehicle charger are installed in the station. The 25kW charger is equipped with Japanese, European and American charging standards CHAdeMO/CCS1/CCS2, and electric vehicle charging compatibility tests can be conducted here by electric vehicle manufacturers in Japan, Europe and the U.S.. The V2B bi-directional electric vehicle charger is capable of turning EVs into virtual power plants by allowing bidirectional power transfer between an EV battery and a home, building or electricity grid.
* Bi-directional V2B EV Charger: Should a disaster interrupt the power supply, the station can provide power supply services for “refuge-like facilities.” Because the station is equipped with a V2B bi-directional EV charge/discharge charger, EVs can be used to supply power back to the grid. Furthermore, because the EV charging station is equipped with a portable battery, it can be used to serve surrounding residents during a power outage, supplying emergency power to achieve business continuity planning for post-disaster communications and life support.
* Energy Storage Solution (ESS): Through the deployment of Delta’s commercial Power Conditioning System (PCS), Li-ion battery technology, and energy management system, peak-shaving and optimized contract capacity can be achieved. The charging station dispatches power from the ESS during peak charging periods, and then charges the batteries during off-peak hours when electricity prices are lower, thus saving on electricity costs. Also, for many EV charging stations, customers’ charging needs are difficult to fully control. When multiple vehicles enter the station and use the quick charge service simultaneously, this places pressure on the power grid. In such instances, leveraging the ESS during sudden peaks in demand will allow the station to keep within the optimal contract capacity plan and achieve economical operating results.
* IoT-based energy management solution: The DeltaGrid® energy management system provides integrated cloud service to establish a comprehensive management system for remote control of the grid power, renewable energy systems, storage batteries, and EV chargers. The DIAEnergie industrial energy management system collects information regarding EV charging power consumption, usage status, remaining battery capacity, and power charge/discharge to analyze and predict the usage status and power demand of the station.

**EV Charging Payment System**

* EZQC App Payment System: Once EV owners enter the charging station area, they will receive an automatic prompt from Delta’s patented EZQC App payment system. Compared with Japan’s major charging services which require the owner to apply for a charging card, EZQC only needs to download the APP and enter the payment information to use it, providing a more convenient charging infrastructure and a new consumption experience. It takes approximately half an hour for each charge, giving EV owners an opportunity for rest at the café to also recharge themselves both physically and mentally. While waiting, they can use the E-coupons provided by the EZQC App payment system and enjoy a cup of high-quality coffee at the café

**Innergie CAFÉ and the IoT Retail Solutions**

* Innergie CAFÉ: While car owners are enjoying specialty coffee in the store, they can also charge various mobile devices in the Innergie charging experience space in the store. The comfortable environment also allows customers to be charged physically and mentally. Innergie PowerGear™ 60C is the world's smallest, high-power and high-efficiency charger. It provides 5 variable voltage outputs and supports a variety of mobile device charging needs.
* Retail IoT environment management system: It provides energy management for small shops and stores, which automatically monitors the environment conditions such as temperature, humidity and light in the cafe, and adjusts the air conditioning or lighting equipment settings to achieve the best environmental comfort and energy saving purposes.
* High-definition projection: Qumi portable projector and high-brightness, high-resolution laser projectors present high-quality images, which can play advertisements and movies, serve as retail digital signage, or display paintings or artworks through images to enhance consumers' visual experience.

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**About Delta**

Delta, founded in 1971, is a global leader in switching power supplies and thermal management products with a thriving portfolio of smart energy-saving systems and solutions in the fields of industrial automation, building automation, telecom power, data center infrastructure, EV charging, renewable energy, energy storage and display, to nurture the development of smart manufacturing and sustainable cities. As a world-class corporate citizen guided by its mission statement, “To provide innovative, clean and energy-efficient solutions for a better tomorrow,” Delta leverages its core competence in high-efficiency power electronics and its CSR-embedded business model to address key environmental issues, such as climate change. Delta serves customers through its sales offices, R&D centers and manufacturing facilities spread over close to 200 locations across 5 continents.

Throughout its history, Delta has received various global awards and recognition for its business achievements, innovative technologies and dedication to CSR. Since 2011, Delta has been listed on the DJSI World Index of Dow Jones Sustainability™ Indices for 9 consecutive years. In 2017, Delta was selected by CDP (formerly the Carbon Disclosure Project) for its Climate Change Leadership Level for the 2nd consecutive year.

For detailed information about Delta, please visit: [www.deltaww.com](http://www.deltaww.com)

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