

EV Charging Solution

DeltaGrid® EVM

- Precise management of energy sources and loads
- Integrated functions for charging service operations
- System interconnectivity and digital services















Forward-looking Smart Charging Solution equipped with Advanced Energy Management

To help EV charging service providers ensure power availability, reduce costs and improve customer satisfaction in new and existing EV charging infrastructure, Delta has included special features for EV charging in the DeltaGrid® energy management system. By enabling grouping of EV chargers, prioritisation, scheduling, configurable limits to charging power as well as leveraging time-of-use tariff arbitrage,

DeltaGrid® EVM provides unparalleled possibilities for managing EV charger infrastructure. DeltaGrid® EVM takes EV charging to the next level with the possibilities of integrating energy storage and renewable energy sources such as solar, in order to not only improve a site's carbon footprint but also reduce operational costs through peak shaving, self-consumption optimisation, load shifting and more.



Smart Charging

- Configurable charging-power limits
- Charger grouping for different rates and charging priorities
- Customizable tariff settings based on ToU and date

Energy Optimisation

- ESS and PV integration to support EV charging during peak hours
- Automatic control and Al-based scheduling using learned energy profiles
- Leverage off-peak or night-time capacity to prepare for peak demand in the next day



Substantial Results after Implementation



Daily Load Profile Before DeltaGrid® EVM

Total Consumption Power Grid Load Charger PV ESS Output ESS Discharger

80

60

20

06 00 12 00 18 00

- Unpredictable and unmanageable load variations
- 2 Costly load-demand peaks
- 3 EV charging accounts for most of the building's energy consumption

Daily Load Profile With DeltaGrid® EVM



- 1 Activates peak shaving when consumption exceeds pre-set levels
- ESS output actively supports periods of peak-load demand
- 3 Intelligent storage of renewable energy contributes to reducing energy coming from the grid and improving the site's carbon footprint

Features and Benefits

- Flatten peaks of electricity demand
- Prevent overloads and tripping
- Ensure no contract demand penalties
- Leverage existing power infrastructure



Precise Management of Energy Sources and Loads



EV Charger Management



Load Management



Energy Management

System Interconnectivity and Digital Services



3rd Party Integration



M&C

Integrated Functions for Charging Service Operations



Account Management



Charging Tariff Setting



Multi-Site Management

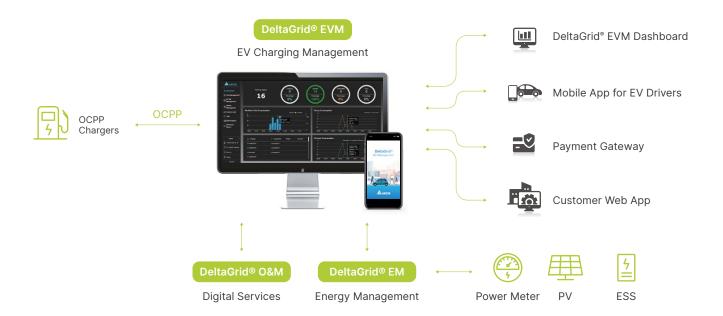


Dashboards

User APP

Connectivity

DeltaGrid® supports integration with third-party systems via an API and can communicate with most major EV chargers in the market that utilise the open communications protocol OCPP.





Version and Function List

		Standard (On-Premise)	Advanced (Cloud)	Professional (Cloud)
Core Functions	Applicable Scenario	Single Site Basic requirements requirement for chargers and facilities	Multi-Site Needs an App as EV drivers' user interface	Multi-Site Management of multiple charging stations and large-scale charging networks
	Dashboard	•	•	•
	Account / RFID Management	•	•	•
	- Prepayment	•		
	Charger Management	•	•	•
	- Grouping	•	•	•
	- Current Limit	•	•	•
	- Time-of-Use (ToU)	•	•	•
	Charging Records	•	•	•
	Statistics / Reports	•	•	•
Data Analysis	Notification	• (Messaging App)	• (Email/App)	• (Email/App)
	O&M Services		•	•
	- Work Order Integration		•	•
	- Predictive Maintenance			0
	Mobile App		•	•
	- Charger Settings		•	•
	- Reservation / Navigation		•	•
	- Payments		•	•
EMS Integration	Metering		0	•
	Load Management		0	•
	Scheduling		0	•
	Multi-Site Management		•	•
	Energy Management (PV, ESS integration)			0

ullet Included \circ Optional



Delta Electronics

TEL: +886-2-8797-2088 #8528 SRV-SGC@deltaww.com

Delta Electronics Europe

186, Ruey Kuang Road, Neihu District, Taipei, 114501, Taiwan Zandsteen 15, 2132 MZ Hoofddorp, The Netherlands TEL: +31 20 655-0900 / FAX: +31 20 655-0999 SRV-SGC@deltaww.com

