



EV charging flexibility and integration to the energy markets



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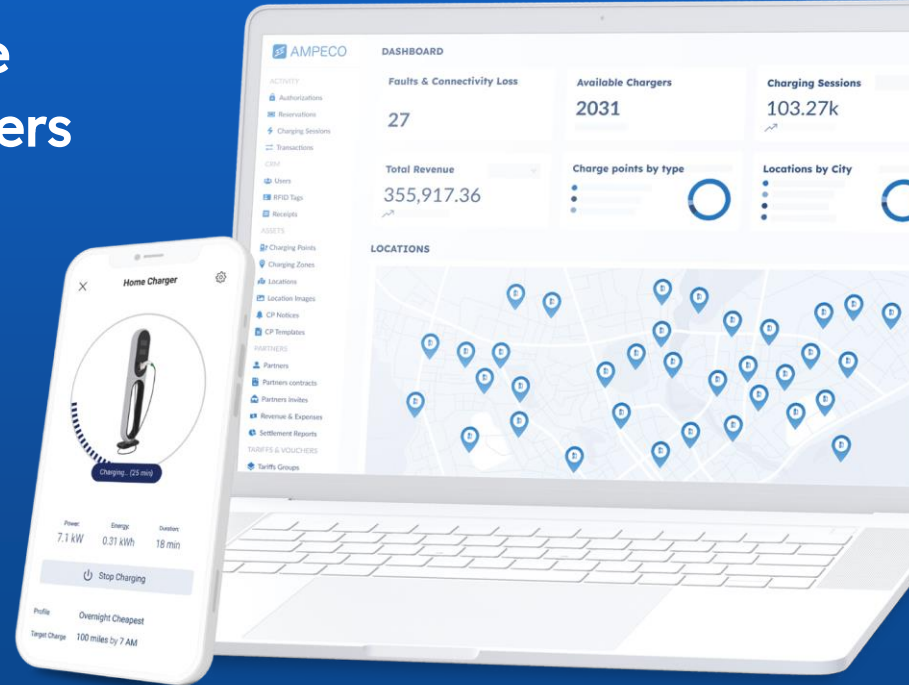


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PRODUCT LEADERSHIP AWARD 2022

The EV charging platform of choice for large-scale EV Charging Providers



Trusted by customers worldwide



120+
Customers

65K+
Charge Points

4.6M+
Charging Sessions
in 2022

90+
Team Members

16M EUR in funding in 2022 ensures we will keep growing with our customers.

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CAVALRY

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We cover all charging use cases



Single-family
homes



Multi-unit
dwellings



Workplace
charging



Destination
charging



On street charging

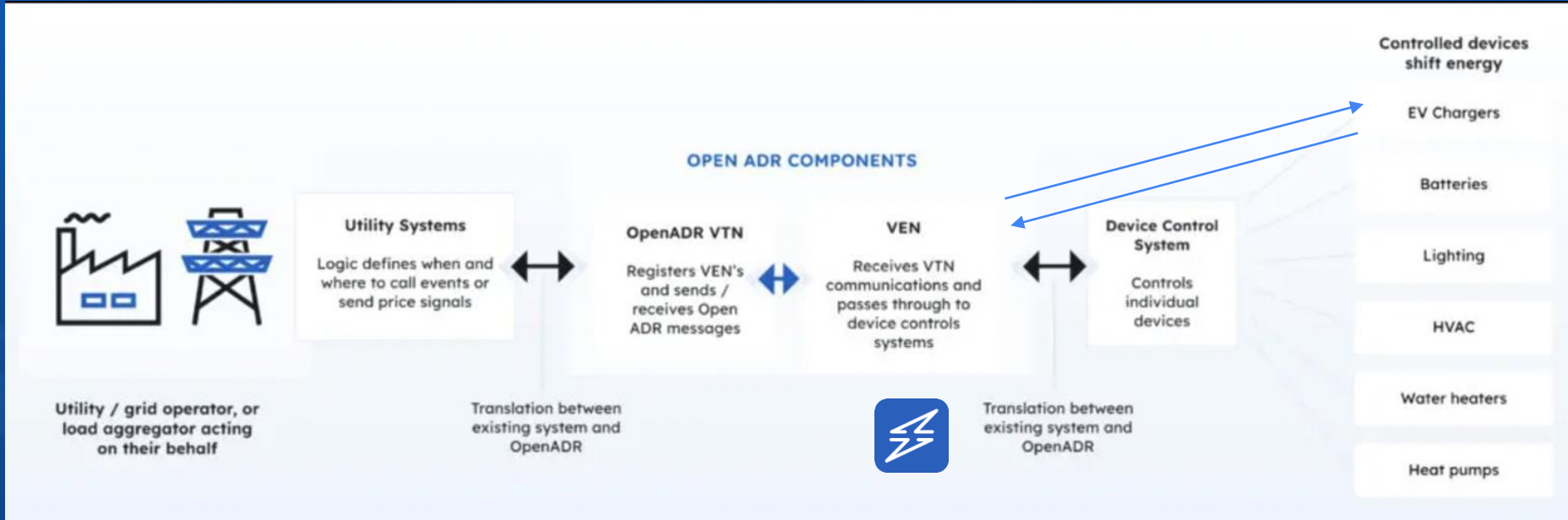


Fast charging



Fleet charging

AMPECO and OpenADR



Partner (API) integrations bring ecosystem benefits



EV charging interoperability aspects



Charger-to-EV

ISO15118-20



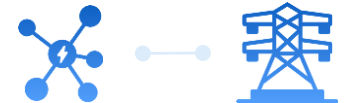
Charger-to-
charger network

OCPP 1.6J, 2.0.1



Charging
network-to-
charging network

OCPI 2.1.1, 2.2.1



Charging
network-to-grid

OpenADR ,
IEEE2030.5 or
similar

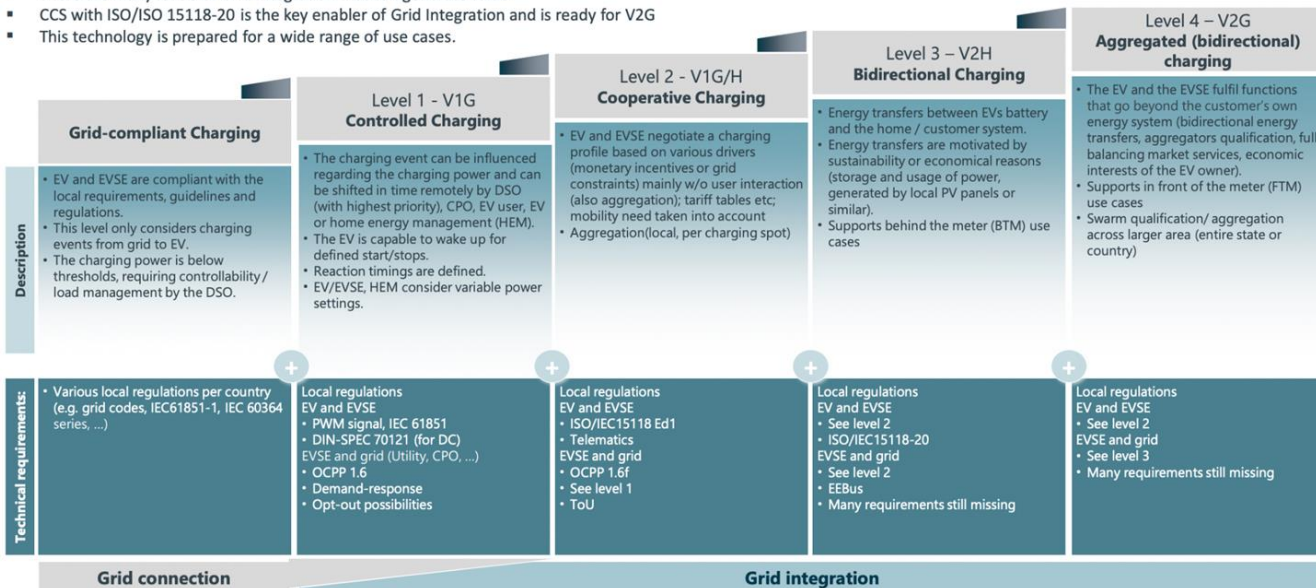
Levels of grid integration

Levels of Grid Integration

Charging System	Communication Protocol	DC	AC	TLX	PhC	SCF	BEK	WPT	ACD
CCS 1	ISO 15118-20 (S1, S2, S3, S22)	✓	✓	✓	✓	✓	✓	✓	✓
CCS 2	ISO 15118-20 (S4, S5)	✓	✓	✓	✓	✓	✓	✓	✓
CHAdeMO	CHAdeMO 1.0 (S1, S2, S3, S4, S5)	✓	✓	✓	✓	✓	✓	✓	✓
CCS 2 (CCS2)	ISO 15118-20 (S4, S5)	✓	✓	✓	✓	✓	✓	✓	✓



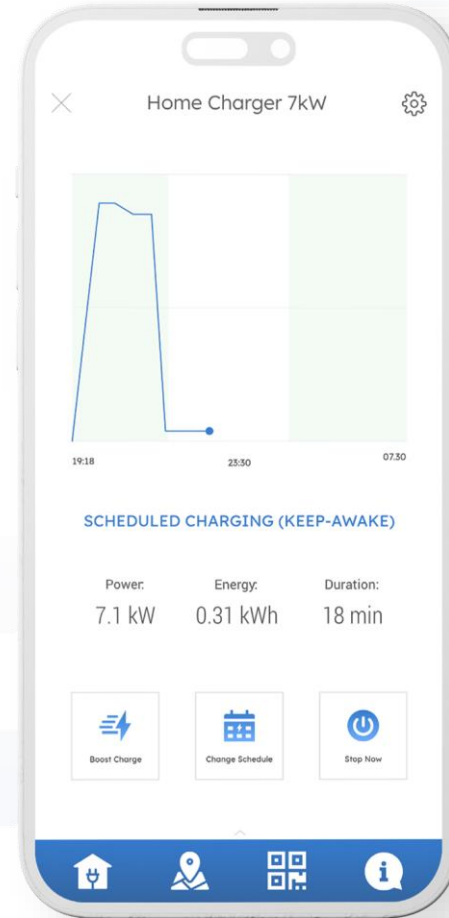
- There are many levels of Grid Integration that can generate value
- CCS with ISO/ISO 15118-20 is the key enabler of Grid Integration and is ready for V2G
- This technology is prepared for a wide range of use cases.



Energy markets integration

Static scheduling examples

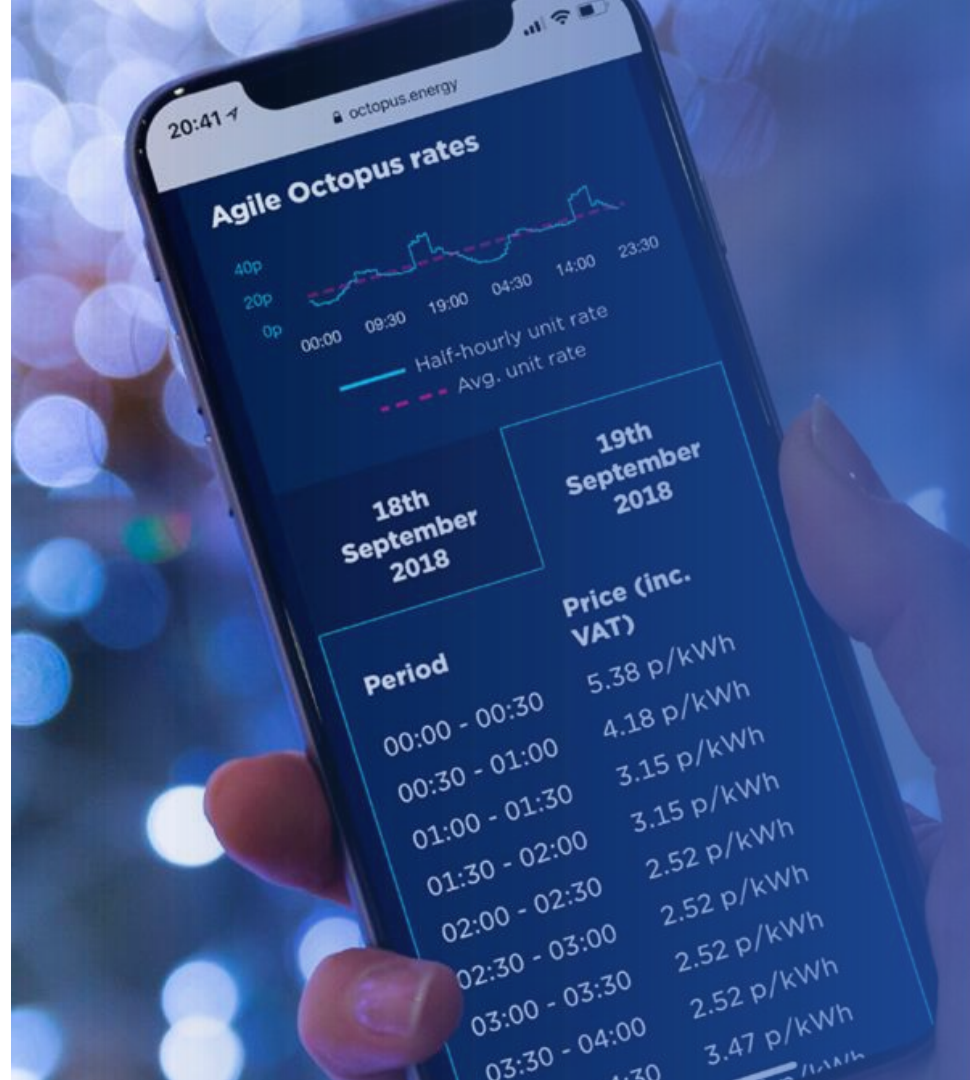
- Schedule is set by the EV Driver (usually) or via the operator (rare)
- Usually takes into account peak, off-peak, shoulder
- In UK - predefined hours by the regulators as a default setup for all charge
- In Israel - different prices during time of day and varies during period of the year



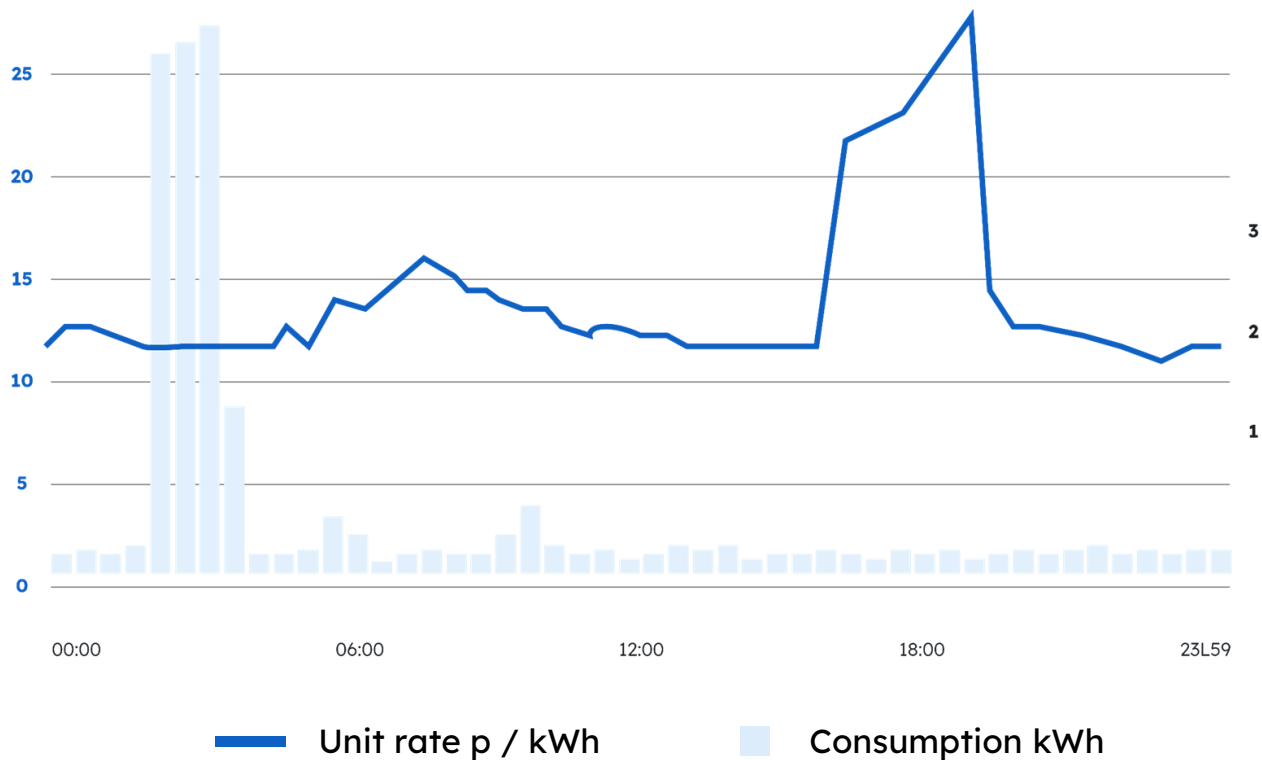


Agile Tariff for EV Charging

- AMPECO reads pricing data via API every day for next 24h
- EV Driver sets preference based on price threshold
- AMPECO platform modulates the charging process based on the set parameters
- EV Drivers benefits directly via reduced energy bill

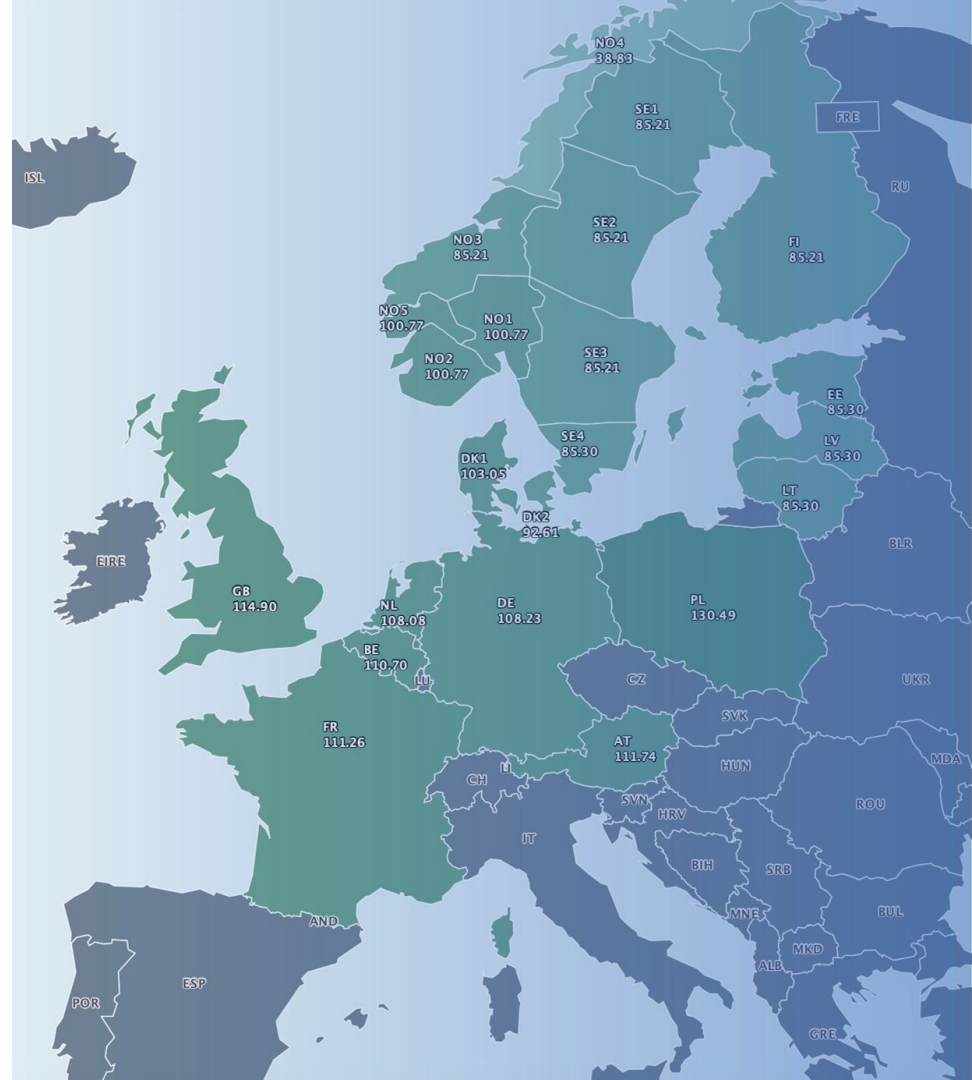


Schedules based on ToU tariffs



Day-ahead & Intraday rates

- AMPECO partnering with NordPool in Europe
- Day-ahead dynamic electricity rates via API
- AMPECO ability to auto-optimize charging at lower costs
- Network operators using AMPECO platform can bill EV Drivers based on market price + markup
- Becoming the norm in the Nordics - Denmark, Sweden, Norway and the Baltics





Let's connect!

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