

INFY POWER — (nnovation for Your Power —

Innovation Solution for Energy Storage and EV Charging



A Leading EV Charging & Energy Storage Power Solution Provider

A Respectable Technical Benchmark and Pioneer in Power Industry

- INFY POWER' S CORPORATE VISION



TALENT STRENGTH



KEY PROJECTS

Leading A major project in Guangdong province: the development and industrialization of silicon carbide devices and modules for new energy vehicles R&D and industrialization of silicon carbide devices and modules for new energy vehicles. Independently undertake the key technology research project of Shenzhen science and technology commission:

Low-voltage AC/DC composite power router key technology research and development



DOMESTIC CONSIST





GLOBAL FOOTPRINT

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Infypower SF US center

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- Infypower SF Power Module EMS factory
- Infypower SF EV Charger EMS factory

Munich
Infypower Electric GmbH
Global center

Athens
Infypower EU EV Charger
EMS factory

Shenzhen
Infypower Co., Ltd
Global R&D center

Vietnam
Infypower Power Module
EMS factory

Global PRODUCT FOORPRINT





INNOVATION Solution



INFY Infinity[™] Support Unbounded Electric Energy Flow





OVERVIEW

Application and Values



V2G/V2H solution support the virtual power plant and power backup in industry, commercial and residential areas with the electric vehicle battery as the energy storage system.

V2G industry virtual power plant

V2H residential power support



Application and Values



When the grid is interrupted abnormally,

the V2G system provides uninterrupted

power supply for important loads to

avoid economic losses

Peak load shifting, Dynamic power expansion and Power backup function are the main function to the power use side, virtual energy storage for the intelligent grid is the value from the power generation side.



Charge during off-peak hours and discharge during peak hours, achieving peak-valley arbitrage or reducing electricity costs For intermittent high-power loads, the V2G system can support the power and stable the grid power requirement to achieve the dynamic expansion

Participate in load side response and obtain government subsidies Reduce peak power and save basic electricity bills

Micro AC Grid and DC Grid



V2G/V2H/V2B Solution support the Micro AC Grid





INFY V2X Building Block



V2X Bidirectional ACDC and DCDC Power Module

VEA DIGITECTIONAL ACDC AND DCDC FOWER WOODIG

- Inner high frequency transformer isolation
- Modules are full compatible in interface and size
- Total solution with bidi ACDC/bidi DCDC/ ACDC/ DCDC
- Liquid cooled solution, 0 dB
- IP65, 55 dB, special design for DC Wall box
- VPF function and MCS performance will share the same platform
- Off grid/ V2H support

- Global grid code and connection certification VDE4105, UL1741SB, CSA C22.3, G99...... Wide range AC voltage for 480/400/380/208V AC grid
- DC side wide voltage range 200V~1000V DC
- Full SiC device using, High power efficiency, 97%+
- Hot plug both for electric and liquid interface
- Air flue protection by potting and coating isolation



BEG1K075G 30kW/1000V ACDC BEG1K0100G 30kW/1000V DCDC BEC1K0100G

22kW/1000V ACDC





35kW/1000V ACDC LBG1K0120G 62.5kW/1250V DCDC LBC125K0160G

INFY V2X Building Block

- IP65/55dB, full isolation air flow cannel ۲
- DC Wall box/Pedestal solution ۲
- **Off grid / V2H support**

- CCS1,CCS2 or CHAdeMo, GBT •
- V2G and V2H AC Box
- Start up battery integrate •

11kW 1000V V2G/V2H solution



- AC side 260 Vac ~ 530 Vac, 45 Hz ~ 65 Hz, 3L+N+PE; 16.7A ۲
- DC side 200 Vdc ~ 1000Vdc constant power ۲

7kW 750V V2G/V2H solution



DC side 300 Vdc ~750Vdc constant power



- High voltage simulator integrate
- **OCPP1.6J/OCPP2.01**

INFY V2G Building Block

V2G Power Cube solution



R&D source and risk reduce

 Project plan and product maturity improve



• Product and certification cost save

440kW/600kW Fan cooled V2G Power Cube

- Split type, Fan cooled, All-in high power cube
- Easy interface to Customer V2G charging dispenser
- Max 12 charging channels with max 500A current each
- Smart power switch matrix
- Patent U type air channel for true 65 dB low noise and high protection
- Stand-alone Global certification



700kW Liquid cooled V2G Power Cube

- Split type, Liquid cooled, All-in high power cube
- Easy interface to Customer V2G charging dispenser
- Max 10 charging channels with max 500A current each
- Smart power switch matrix
- IP65 for power convert area, 60 dB low noise
- Stand-alone Global certification

Business Model

The business builds on a peak shaving



In use cases with extended and predictable idle times, V2G participation incurs **near-zero marginal cost for EVs** vehicles equipped with long-life batteries can achieve high economic returns through peak-valley.

Charging Scenarios



Public centralized charging station



Large-scale Solar-Storage-Charging Demo Station



Bus charging station



Airport parking lot



Highway service area charging station



Township demonstration station



Logistics charging hub



Shore power for ships charging station



Decentralized public charging station



Residential community charging station



Heavy-duty truck Charging station



CBD charging station

Case 1 (Residential Community):

Peak shaving Discharge (8:00–18:00)

Valley filling Charge (00:00–08:00)

EV Owner									
Contracted Discharging		Power Tariff		Revenue Split from Discharging			Annual Income of EV Owners		
Discharge Volume	Discharge Days	Peak	Valley	Owner Discharge Price	Property Electricity Selling Price	Property Profit		Peak-Shaving Revenue	
28 kWh/day (4hrs)	288 days per year	¥ 1.20 /kWh	¥ 0.29 /kWh	¥ 0.9 /kWh (75% × ¥ 1.20)	¥1.1 /kWh	¥0.2 /kWh	28×¥1.20>	$<75\% \times 288 - 28 \times 40.29 \times 288 = 44,$	919
35 kWh/day (5hrs)							35×¥1.20	$\times 75\% \times 288 - 35 \times 40.29 \times 288 = 46,$	148

ROI (O&M Costs included)

Case 2(Residential PV):



ROI (O&M Costs included)

Case 3(Industrial Zone):

Employee EVs V2G

Participants: 1. Vehicle Users: Company Employees

2. Electricity Consumers: Building Property Management



Annual Total Discharge = $30 \times 250 = 7,500$ (kWh)

Annual Total Discharge Revenue= 7,500 × $\pm 1.0 = \pm 7,500$

Annual Revenue per Vehicle= ¥ 7,500 - ¥ 6,510 = ¥ 990

Annual Total Charging Cost= (7,500 + 1,800) × ¥0.7 = ¥6,510

After deducting charging costs, each EV can earn up to ¥990 per year (including charging costs for 12,000 km of employee use), while also earning additional income by participating in ancillary services.

Case 4(Emergency Situation):

V2G technology enables bidirectional power flow, supporting emergency power, load balancing, and energy optimization. By quickly switching to backup sources and microgrids, it reduces disruptions to daily life, business, and data loss, minimizing economic impact.





















Natural Disasters and Extreme Weather

Sudden Grid Failure or Blackout

Grid equipment failure can cause blackout. The V2G system maintains power stability by quickly switching to backup sources.

Cyberattacks and Data Security Incidents

Hacker attacks causing altered dispatch commands or data leaks are mitigated by the V2G system isolating infected nodes and switching to secure backup data to restore service.

During major events, when grid load spikes or renewable generation fluctuates, the V2G system leverages vehicle batteries for peak shaving and valley filling to prevent grid collapse.

Remote charging station failures or network outages are managed by V2G via edge computing and backup links like satellite.

China's largest-scale V2G hub-

2.16MW



CSG Lotus Hill V2G hub achieves multi-dimensional integration of cutting-edge technologies and new business models, including ultra-fast charging, V2G, Power Harmony OS, smart photovoltaics, advanced energy storage, Power Cube prefabricated units, and virtual power plant aggregation platforms.

The station's total V2G interaction capacity is 2.16 MW, equipped with two sets of 600 kW split V2G chargers (four 600 kW liquid-cooled ultra-fast bidirectional charging guns and sixteen 250 kW naturally cooled fast bidirectional charging guns), six 120 kW, and four 60 kW integrated V2G chargers. This project serves as a large-scale V2G demonstration model.



50 SETS 30KW DCWB, 10 SETS 22KW V2G DCWB School Bus Station

VNASHIVILLE, USA





2.8MW B2G Solution *100 + SETS* TOTT POWER

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♥ Global

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INFYPOWER Vehicle-to-Grid (V2G) Power Discharging Event



In April 2025, Shenzhen Virtual Power Plant Management Center, Shenzhen Urban Transport Planning Center, and Infypower held a V2G discharging event at eight Feichong Network ultra-fast charging stations in Shenzhen. EVs acted as power banks, discharging electricity to balance grid demand, while owners earned subsidies. One participant shared: "I earned 7 yuan in five minutes simple and rewarding. I hope this becomes a regular event!"

Thanks to **Feichong Network mini-program**, the event offered a seamless service for scheduling, discharging, and earnings, with real-time station integration.

Looking ahead, Feichong Network will roll out a "Discharge Points" system, linking discounts and market transactions to boost user participation and value.





Contact us :

WEB: www.infypower.com MAIL: Christopher.lu@infypower.com ADD: Hanns-Schwindt-Str. 8,81829 München Booth No: C03-02