



polytechnology co.ltd.

Polytech

EV Charger & Application

greenlots



efacec



COMPANY IN BRIEF

**Company
Established**

Polytechnology Co Ltd
Since 1977

Bank References

- Kasikorn Thai Bank
- Bank of Ayudhya
- TMB Bank Plc Co Ltd
- Standard Chartered Bank (Thai)

Turnover

- 1000 Million Baht in 2019

No. of Employees

- 130 Persons
-

OUR EXPERTS

POLYTECHNOLOGY BUSINESS UNITS

To provide the best services



Solution Provider
Division



Green Energy
Division



NGV
Department



Service
Division



Product Sales
Division



polytechnology.co.ltd

Division of Future

greenlots
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EV
Plug-in Hybrid Electric Vehicle

\$195.10

2-3 hrs.

▼ Robinson 1 MW



▼ CPN 500 KW



GREEN ENERGY DIVISION

Pedestal-mount



efacec
EV Charger
QC45

Solar Farm



Huawei Solar Inverter



Solar Roof



World Trend



ChargeNow Station



1. Mandarin Oriental Hotel
2. Peninsula Hotel
3. Banyan Tree Hotel
4. Sofitel So Hotel
5. Conrad Hotel
6. Gaysorn Village
7. Terminal21
8. Crystal Design Center
9. All Seasons Place
10. Central World
11. Central Plaza Bangna
12. Central Plaza Ladprao
13. Central Plaza Grand Rama 9
14. Central Festival Eastville
15. Central Plaza Westgate
16. Central Plaza Pinklao
17. Central Plaza Rama 2
18. Central Plaza Rattanathibet
19. Central Plaza Salaya
20. Central Plaza Chaengwattana
21. Central Plaza Mahachai
22. Central Plaza Chiangmai Airport
23. Central Plaza Chonburi
24. Central Festival Pattaya Beach
25. Central Festival Chiang Mai
26. Central Plaza Udonthani
27. Central Plaza Khonkaen
28. Central Plaza Nakhonratchasima
29. Central Festival Hatyai
30. Central Phuket
31. Polo Club
31. RSPC
32. Shell – West Outer Ring
33. Royal Bangkok Sport Club

As of May 2019

ChargeNow Station



EGAT Station



1. ศูนย์เรียนรู้
2. สำนักงานกลาง
3. โรงไฟฟ้าบางปะกง
4. โรงไฟฟ้าวังน้อย
5. โรงไฟฟ้าลำตะคอง
6. โรงไฟฟ้าน้ำพอง
7. โรงไฟฟ้าจะนะ

8. โรงไฟฟ้าแม่เมาะ
9. โรงไฟฟ้าสิรินธร
10. Parking lots 20 ports



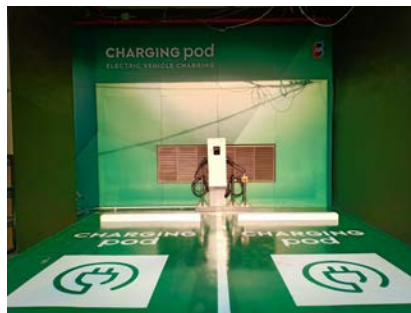
PTT Station



1. สาขาพระราม 2 ขาเข้า
2. สาขาพระราม 2 ขาออก
3. สาขาวงแหวนตะวันตก ขาเข้า
4. บรมราชชนนี ขาเข้า
5. สาขาวังน้อย
6. สาขาสระบุรี
7. สาขาบางปะอิน
8. สาขาลาดพร้าววังหิน
9. สาขาเอกมัยรามอินทรา
10. สาขามัยลาภ
11. สาขานวลจันทร์
12. สาขาแยกสันติสุข
13. สาขาคลองหลวง กม.6
14. สาขาพุทธมณฑลสาย 5
15. สาขาราชภัฏวชิรบูรณะ ขาออก
16. สาขาราชพฤกษ์
17. สาขาโรงแยกกักาช

จำนวน 25 หัวชาร์จ จาก 17 สถานี

AP Station



- 1. Rhythm Rangnam
- 2. Life Sukhumvit 48
- 3. Life Pinklao
- 4. Life Asoke
- 5. Vittorio 39
- 6. Rhythm Ekkamai
- 7. Aspire Sathorn

AUDI DC STATION



- 1. DC+AC Charging Station @ Audi Showroom Rama9



What We Done



- Partner with Greenlots since 2011
- Installer of EV stations, with experienced in installing since 2013
- Representative of Efacec since 2016
- Charge Point Operator with ChargeNow™ network
- EGAT and PTT supplier for EV chargers & Network Management

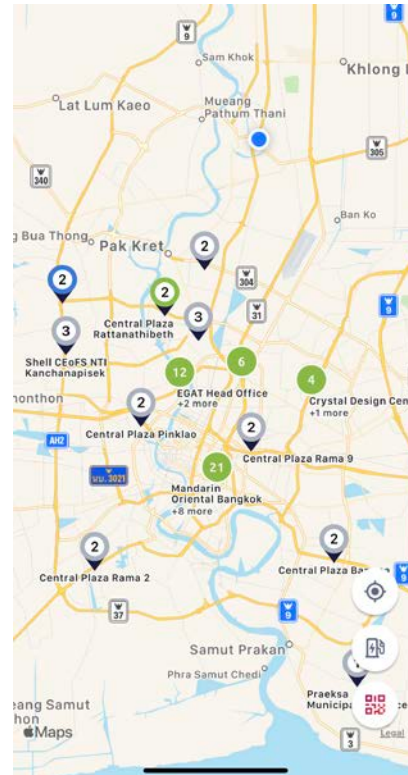
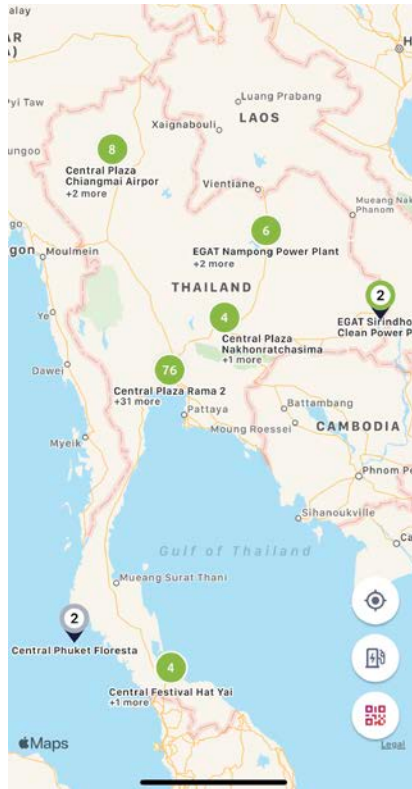


in cooperation with **BMW i.** 
 **ChargeNow**

Greenlots



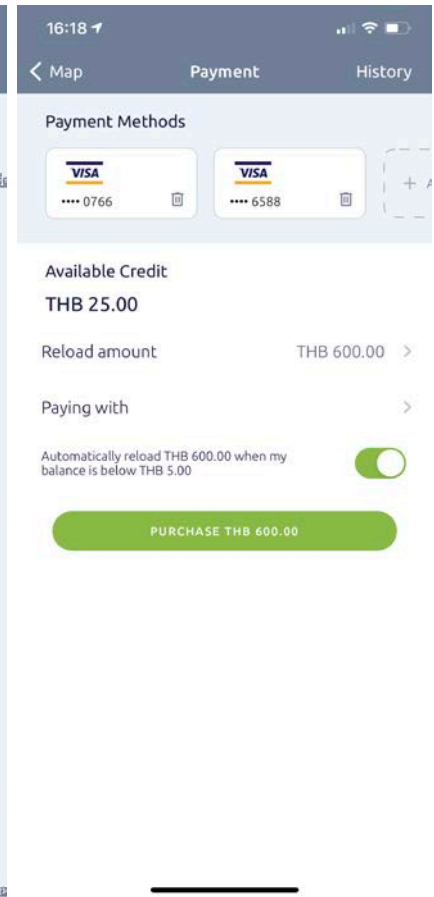
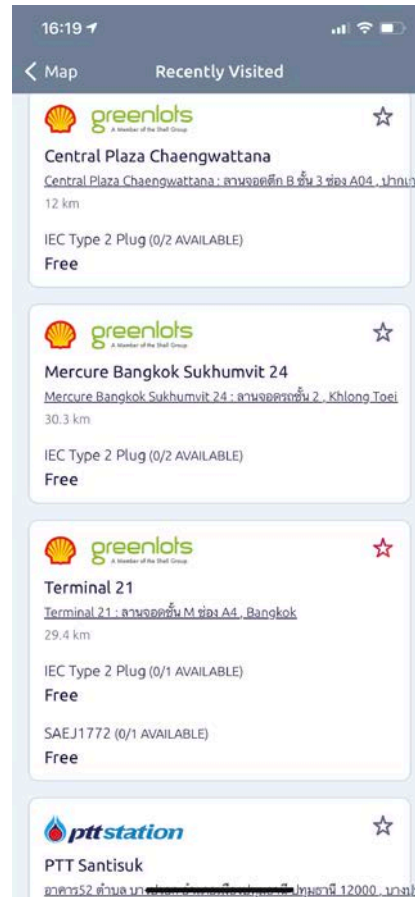
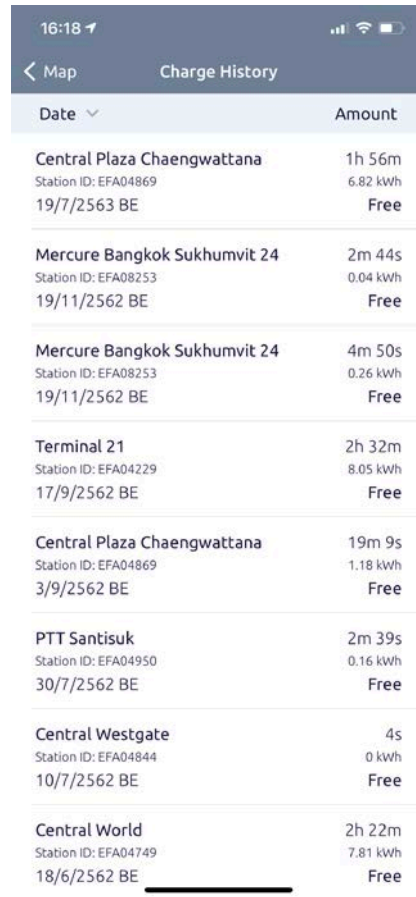
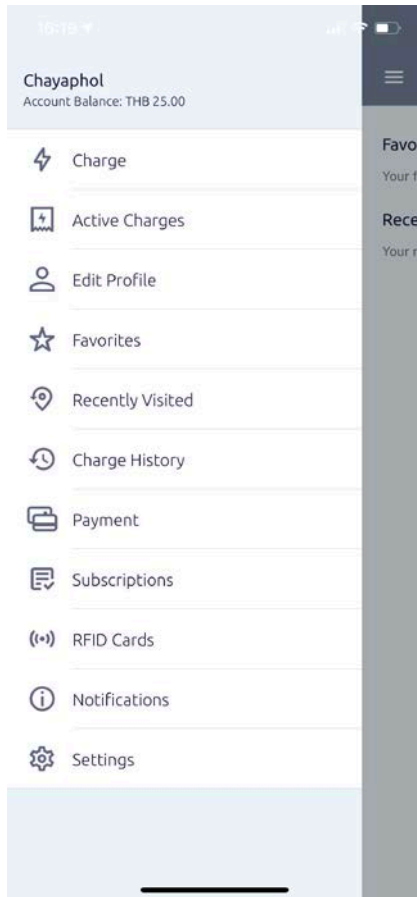
- One of the largest EV Charging Network in the world.
- 5000+ AC Charging Stations
- 1000+ DC Charging Stations
- 102 charge points in Thailand



Greenlots



- Operator of ChargeNow and Electrify America
- Payment with e-Wallet or Credit Card



○ Wall Box ´s

- Single Phase
- 7.4KW 1 Phase



- Three Phase
- 22KW 3 Phase



PC 2 dual charger



Pedestal-mount

Wall-mount

Overview

- Charge all Mode-3 vehicle
- Pedestal or wall-mount installation
- AC output power from 3,7 kVA up to 22 kVA
- Simultaneous charging of 2 vehicles
- TFT color display
- RCD and breaker included
- Network integration (OCPP or proprietary protocol)
- Built-in communications (3G; LAN; Wi-Fi)



User-Friendly



Scalable



Communication & Management



Available Outputs

Main features

- Multiple outputs (Mode-3)
- Multiple powers (up to 22 kVA)
- Scalability (Master-slave)
- Versatile installation options
- Aluminum enclosure
- Simple plug & play installation
- Local and remote monitoring and control

The Public Charger was designed to have up to 2 outputs, Mode 3 charging socket (power ranging from 3,7 kVA to 22 kVA), able to charge any electric vehicle compatible with IEC61851.

Using easy installation procedures and requirements, the Public Charger can be wall - mounted or pedestal-mounted, allowing versatile installation options. The Human Machine Interface (HMI) with TFT display and RFID reader was designed to control the 2 build-in outputs.

Each Efacec Public Charger can be integrated in a charging infrastructure network and its operation and status is controlled by the central management system.

Multiple Public Chargers in one location can be integrated in the network in a master slave configuration with only one internet communication connection.

PM Single charger



Overview

- Charge all Mode-3 vehicle
- Pole or wall-mount installation
- Single AC output from 3,7 kW to 22 kW
- Simple and intuitive usage
- RFID user identification
- Status color LED
- Network integration (OCPP or proprietary protocol);
- Build-in communications (3G; LAN; Wi-Fi)

Main Features

- Single output (Mode-3)
- Multiple powers (up to 22 kW)
- Scalability (master-slave)
- Versatile installation
- Aluminium enclosure
- Simple plug&play installation
- Local and remote control and monitoring
- Customizable



User-Friendly



Low-Cost



Communication & Management



Available Outputs

Product description

The Pole Mount is designed for conductive battery charging of the BEV (Battery Electric Vehicle) or PHEV's (Plug-In Hybrid Electric Vehicles) on board batteries at public access charging locations, where usage simplicity and functionality are important. Equipped with one Mode 3 charging outlet (power ranging from 3,7 kW to 22 kW), can charge any BEV compatible vehicle with IEC61851.

Using easy installation procedures and requirements, the Pole Mount can be also mounted in a wall, allowing versatile installation options.

Each Efacec Public Charger can be integrated in a charging infrastructure network and its operation and status is controlled by the central management system.

Quick Charge QC45



Overview

- Fast-charge any compatible vehicle
- 0 to 80% in less than 30 minutes
- Multi-standard (DCA - CHAdeMO; DCC - CCS/Combo; AC)
- Simultaneous charging of DC and AC
- Color screen (for user interface and publicity)
- Network integration (OCPP or proprietary protocol)
- Built-in communications (3G; LAN; Wi-Fi)
- Optional 2 piece configuration (kiosk/terminal)

Main features

- Multiple standards
- Multiple outputs
- DC up to 50 kW
- AC up to 43 kW
- High efficiency: > 93%
- High power factor: 0.98
- Simple plug & play installation
- Standalone or network integrated charger
- local and remote monitoring and control
- Customized personalization
- Corrosion protection (equivalent to stainless steel)

AC and DC plug-in charging systems



CCS



CHAdeMO

AC ~



Hi Power Quick Charge

Bus Charger up to 150KVA
HV175KVA
Ultra Fast Charge 350KVA



What We Done

Project Reference : Central World and Other 20 Central branches



Project reference : ChargeNow



efacec EV charger is BMW's charging partner, along with Greenlots for LAPD's 100 BMW i3 fleet project in Los Angeles, CA, USA.



Available with 2-way charger that can be compatible with both AC Type I & Type II in one machine as BMW Thailand requested

www.efacec.com

Public Charging Station

Pedestal-mount Wall-mount

efacec

Overview

- Charge all Mode-3 vehicle
- Pedestal or wall-mount installation
- AC output power from 3,7 kVA up to 22 kVA
- Simultaneous charging of 2 vehicles
- TFT color display
- RCD and breaker included
- Network integration (OCPP or proprietary protocol)
- Built-in communications (3G; LAN; Wi-Fi)

User-Friendly Scalable Communication & Management Available Outputs

Main features

- Multiple outputs (Mode-3)
- Multiple powers (up to 22 kVA)
- Scalability (Master-slave)
- Versatile installation options
- Aluminum enclosure
- Simple plug & play installation
- Local and remote monitoring and control

The Public Charger was designed to have up to 2 outputs, Mode 3 charging socket (power ranging from 3,7 kVA to 22 kVA), able to charge any electric vehicle compatible with IEC61851.

Using easy installation procedures and requirements, the Public Charger can be wall - mounted or pedestal-mounted, allowing versatile installation options. The Human Machine Interface (HMI) with TFT display and RFID reader was designed to control the 2 build-in outputs.

Each Efacec Public Charger can be integrated in a charging infrastructure network and its operation and status is controlled by the central management system.

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Official Partners

World wide Charging operation software using in USA, Hawaii, Netherland, Singapore and Thailand . Incd. Operator for PTT EGAT and ChargeNow

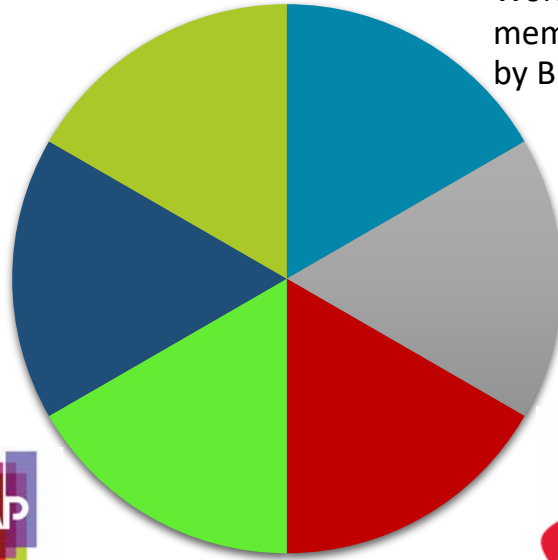


World largest Charging members /stations powered by BMW i

40 years engineering company who expert in hardware installation



polytechnology co.,ltd.



Home charger Installer



EGAT
Power for Thai Happiness



Allow Your CUSTOMER to Access to PTT, EGAT, CPN, AP Charging Network



No.1 EV charger in the world

Thank you

