

# GREEN CHARGE



The future in smart EV charging infrastructure



## Who we are

Greencharge is a fast-growing Korean-Dutch start up in providing advanced and globally leading EV charging station hardware and software solutions.

Officially starting the development in the end of 2016 and launched at the IEV Expo at Jeju Island at May 2018.



## Our Vision

“To inspire and develop the greener society by providing the next generation EV charging infrastructure to make it as easy as possible to drive an Electric Vehicle”

Greencharge strives to become a standard in the Korean market as all round advanced EV Charging Station supplier, charging software management and payment solutions provider. In turn, by the end of 2022 we aim to have a Korean society where it is as easy and carefree and especially more cost efficient to drive an electric vehicle.

# Our Team



## Chairman Mr. Kitae Lee

- Original founder of Greencharge
- Major investor and fund-raiser



## CEO Mr. Andreas Varkevisser

- Original founder of Greencharge
- General manager



## COO Mr. Sun Bum Kim

- Extensive experience in tech industry and international market
- Support day to day operations



## CTO Kang Su Lee

- Extensive experience in electronic engineering
- Manage installation & a/s dep.



A photograph of a man with a beard, wearing a beige sweater and a watch, standing at an electric vehicle charging station. He is looking down at the charging port of a white car. The background shows a brick building and some greenery. A large green diagonal shape is overlaid on the top right of the image, containing the title and list of partners.

# Our Target & Partners

Korean Government and Regional Municipalities

Major Construction Companies

Project Developers

Commercial and Private Companies

Korean and Foreign Automakers

Individual EV Drivers

# Our Target & Partners

## **Korean Government and Regional Municipalities**

The national Korean government is now more focused on setting up a strong EV charging infrastructure. With Greencharge's current political connections we aim to start the dialogue with the ministries of environment and transportation to be included in tenders.

## **Major construction companies & project developers**

Knowing that the majority of apartment villages have a dedicated subterranean parking garage structure stretching below the entire block and are therefore one of the major targets for adaptation to EV charging stations to facilitate parking for EV drivers living or working there.

## **Commercial & Private companies**

Currently in the Korean private sector there are numerous enterprises that also wish to be able to cater to EV driving customers. Think of the major shopping malls, department stores and supermarkets. But also hotels, restaurants, musea and theatres for example.

## **Korean & Foreign automakers**

Through the network of the Hae Joong Group, which logistics arm HJ Logistics specializes in automotive shipping, Greencharge has direct lines and connections with the major automakers around the world and the added benefit that EVBox charging stations are already being used in other major markets and are fully compatible with the OEM's range of models.

# Our Products



## Elvi home charging solution

From 3.7 kW to 22 kW

Durable, smart, and simple design

Tracks and invoices charging sessions

Easy to use, easy to install, easy to upgrade

Compatible with every electric car — now and in the future

|                        |   |
|------------------------|---|
| Charging capacity      | 3.7 kW, 7.4 kW, 11 kW, 22 kW                  |
| Cable plug             | Type 1 (SAE J1772) or Type 2 (EN/IEC 62196-2) |
| Cable length           | 4 or 8 meters                                 |
| Number of connectors   | 1   |
| Standard communication | WiFi 2.4/5 GHz / Bluetooth 4.0                |
| Optional communication | UMTS (EU/US/JPN)                              |
| Housing                | Polycarbonate                                 |
| Dimensions (WxHxD)     | 186 x 328 x 161 mm / 7 x 13 x 6 inch          |
| Weight                 | 6-11 kg / 13,2 - 24,3 lbs                     |
| Mounting               | On a wall or on a pole                        |
| Colors                 | Misty Black<br>Polar white                    |

## **BusinessLine business charging solution**

From 3.7 kW to 22 kW  
Charges 2 cars simultaneously  
Available with fixed charging cables (optional)  
Available with Schuko charging plugs (optional)  
Durable, low maintenance  
Remote monitoring and settlement of charging costs  
Distributes power efficiently with Load Balancing  
Integrated with multiple software providers for customer flexibility

|                        |  |
|------------------------|--|
| Charging capacity      | 3.7 kW, 7.4 kW, 11 kW, 22 kW   |
| Cable plug             | Type 1 (SAE J1772), Type 2 (EN/IEC 62196-2)<br>Type 2S (with Shutter), Type E (wall socket 16A)              |
| Cable length           | 6 or 8 meters (optional fixed cable – straight or spiral)  |
| Number of connectors   | 1 or 2   |
| Standard communication | GPS / GSM / UMTS / GPRS Modem<br>/ controller with RFID reader   |
| Housing                | Polycarbonate  |
| Dimensions (WxHxD)     | 255 x 600 x 205 mm / 10 x 24 x 8 inch (1 connector)<br>255 x 600 x 410 mm / 10 x 24 x 16 inch (2 connectors) |
| Weight                 | 11 kg / 24,3 lbs (max.)  |
| Mounting               | On the wall or on a pole   |
| Colors                 | RAL 5017 (blue)<br>RAL 7042 (light grey)<br>RAL 9016 (white)   |







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## **Level 2** **business and commercial charging solution\***

From 3.7 kW to 22 kW in Europe

7.4 kW - 32A in the US

Charges 2 to 4 cars simultaneously

Durable, low maintenance

Smart cable storage

Touchscreen display with NFC payment

Distributes power efficiently with Load Balancing

## **PublicLine public charging solution**

11 kW and 22 kW  
Charges 2 cars simultaneously  
Compatible with all grid networks  
Robust, durable, low maintenance  
Remote monitoring and settlement of charging costs  
Distributes power efficiently with Load Balancing  
Integrated with multiple software providers for customer flexibility



|                        |  |
|------------------------|--|
| Charging capacity      | 11 kW and 22 kW  |
| Cable plug             | Type 1 (SAE J1772) or Type 2 (EN/IEC 62196-2)                  |
| Number of connectors   | 2  |
| Standard communication | GPS / GSM / UMTS / GPRS Modem<br>/ controller with RFID reader |
| Housing                | Stainless steel  |
| Dimensions (WxHxD)     | 350 x 1250 x 225 mm / 14 x 49 x 9 inch                         |
| Weight                 | 30 kg / 66,1 lbs   |
| Mounting               | On foundation  |
| Colors                 | RAL 7024 (graphite grey)<br>RAL 9016 (white)                   |



## DC fast charging solution

50 kW

Charges up to 125 km in 30 minutes

Charges 3 cars with Dynamic Load Balancing

Smart power and grid management via an optional battery storage

Easy management and invoicing of charging sessions with Everon

Robust, durable, and low maintenance

Compatible with every electric vehicle, designed to charge everywhere

|                        |  |
|------------------------|--|
| Charging capacity      | 50 kW  |
| Charge modes           | Mode 4 (DC charging - ChaDeMo and CCS 2)<br>Mode 3 (AC charging - type 2) (optional)<br>Mode 2 (Type E/F) (optional)<br>(EN/IEC 61851)   |
| Fixed cable types      | CCS 2 / ChaDeMo / AC type 2  |
| Number of fixed cables | 1 to 3   |
| Fixed cable length     | 4,5 m<br>3,75 m with cable auto-retract (optional)   |
| Socket types           | Type E/F / AC type 2   |
| Communication          | GSM / GPRS / UMTS or Ethernet  |
| Housing                | Galvanized steel (structure), aluminum (casing), stainless   |
| Dimensions (WxHxD)     | 820 x 1920 x 450 mm / 32 x 76 x 18 inch<br>(Bi-standard QuickCharger Unit)   |
| Weight                 | 920 x 1920 x 450 mm / 36 x 76 x 18 inch<br>(Tri-standard QuickCharger Unit)  |
| Mounting               | 395 kg / 870 lbs (with battery pack)<br>350 kg / 772 lbs (without battery pack)<br>Floor / Ground (optional with clamping / sealing kit) |

## **Accessories charging optimization**



### **Charging cables**

- Remains flexible in cold weather conditions
- Prevents cable buckling
- Made of heat-resistant materials
- 2 years warranty

### **Station poles and brackets**

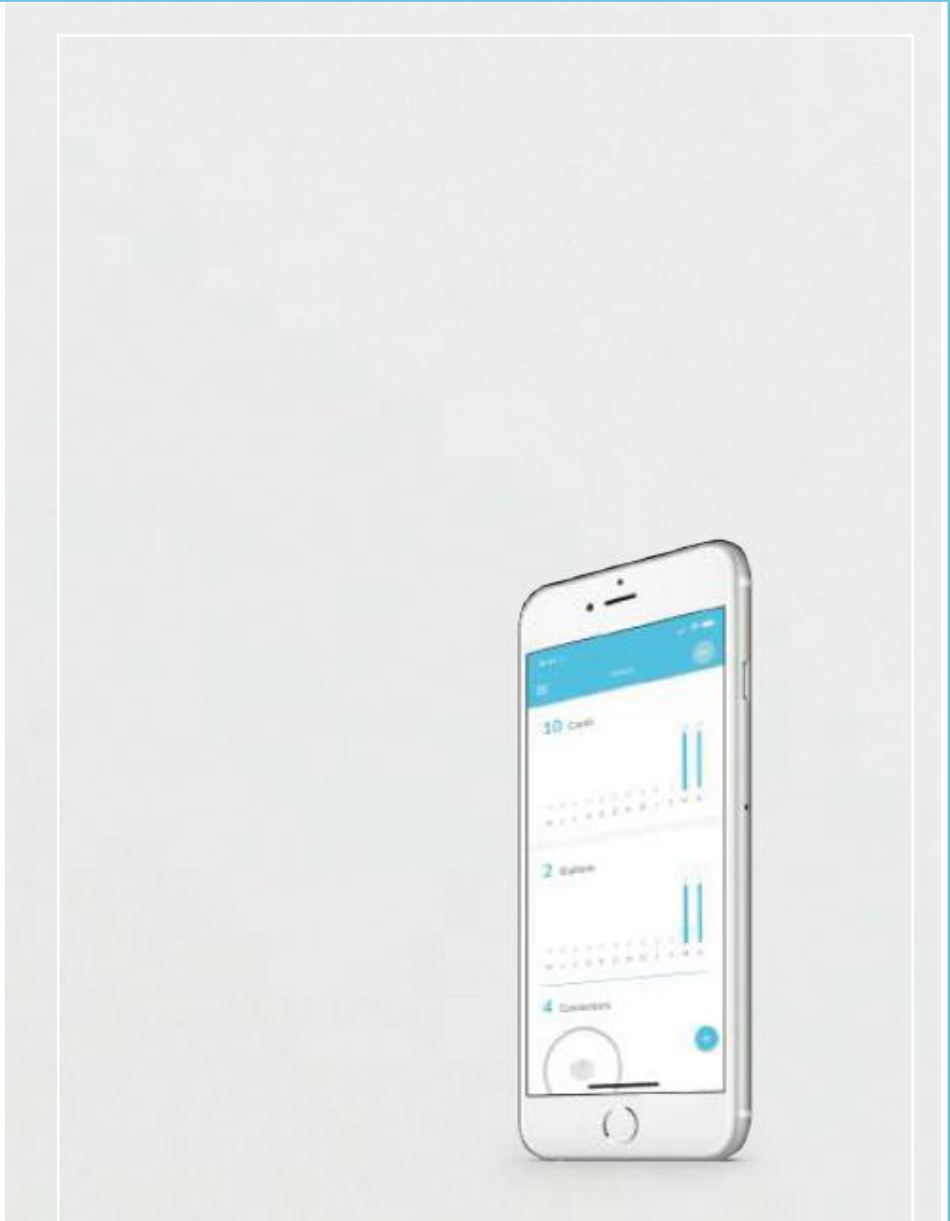
- Made of stainless steel
- Available in various models and lengths
- Suitable for wall, foot, and concrete installations
- Applicable for Elvi and BusinessLine models

### **Branded labels and cards**

- Made for commercial and public use
- Logo and text placement
- Custom designs
- Applicable for station labels, charge cards, and key fobs

### **Parking and road signs**

- Made for commercial and public use
- Made of stainless steel
- Equipped with aluminum brackets
- Available with single or double arrows
- Based on local government standards



## **Hey EVBox charging management app**

The Hey EVBox app allows EVBox station owners and electric vehicle drivers with EVBox charge cards to easily track and manage charging sessions in the palm of their hands.

### **Applicable for**

- Electric vehicle drivers with an EVBox charge card that charge at home, at work and / or in public
- Electric vehicle drivers that own an EVBox charging station
- Businesses that offer EVBox charging services to employees



## **Everon charging management platform**

Everon is a widely customizable platform that helps every charging point operator to easily manage and control all charging sessions, costs, and power consumption. For every type of charging station, lease driver, and office parking lot, to every public parking garage and commercial fleet – Everon is forever flexible, forever scalable.

### **Applicable for**

- Charging Point Operators: Businesses that'd like to offer charging services to property owners
- Mobility Service Providers: Businesses that'd like to offer charging services to electric vehicle drivers

## Smart Charging cost and energy saving services

Smart Charging defines all intelligent functionalities in our charging stations that help you to optimize the charging process, making it an indispensable feature for operators of multiple charging points.

Smart Charging creates and distributes the available power in an efficient and flexible manner. Thanks to this, you'll be able to avoid unnecessary costs such as overcapacity fees charged by grid operators, and you'll get the most out of your charging stations in case of limited power capacity, any time, any place.



### **Hub / Satellite for cost effective operation**

Operate multiple charging stations cost effectively with the Hub / Satellite configuration, which connects up to 20 charging points per location through a single communication device. This will substantially improve and facilitate the management of all charging stations.

### **Load Balancing for smart power distribution**

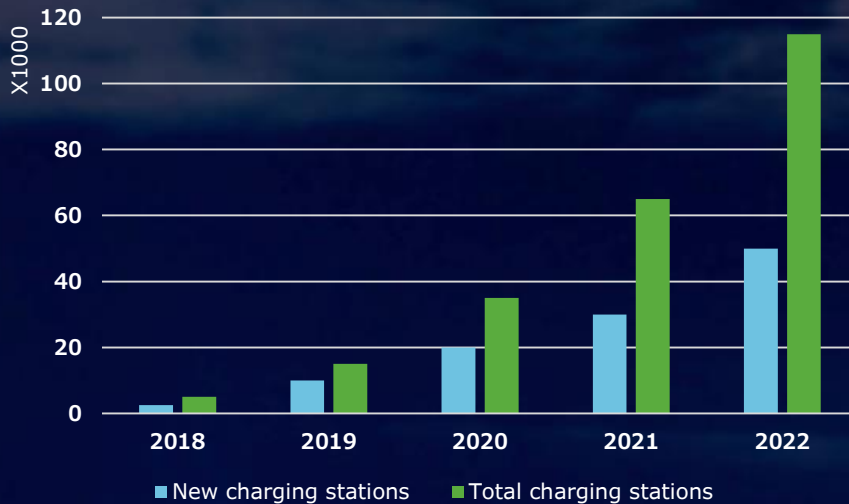
Distribute the available capacity per location proportionally over all charging stations in use with the Load Balancing service. This service ensures that each car is optimally charged within the limits of your charging stations' and facility's capacity.

### **Peak Shaving for overcapacity prevention**

Prevent peak usage and avoid overcapacity fees with the Peak Shaving service. This service allows you to set up a maximum capacity for your charging stations during the day. This way, you ensure that you won't exceed the limits of your property's maximum capacity, even during peak hours.

# Our Future

## Korean EV Charging Station Market



### By 2022 to achieve 30% market share:

- ✓ 20,000 AC charging stations installed
- ✓ 2,000 DC charging stations installed
- ✓ 500,000 Greencharge payment subscription and application users
- ✓ 3 million charging interactions per month
- ✓ Everon charging management software to be the standard in Korea
- ✓ 2,000 Software Tenants on monthly software royalty payment basis

→ Projected company value by end of 2022: 25 million USD





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