EVite

Developing a Swiss-wide fast charging network

EVite
Fast Charging.
Anytime.
Anywhere.

Brief overview

- EVite is a project of the association Swiss eMobility.
- In this manner a base-grid with 150 to 250 charging points is to be deployed in 2013.
- In the following years the grid will grow parallel to the EV market in Switzerland.

Eliminating «range-anxiety»

- Average daily distance is below 50 km

- EV range is about 100 – 140 km,
  i.e. higher than the average daily distance traveled

- But: 20 % of all travelers exceed the average
  distance traveled

- To solve this issue EVite is
  needed – a Swiss-wide fast
  charging station grid

EVite – neutral and modular

- Every charging point supports all available fast chargeable EVs

- Access is provided 24/7

- Open Source basement (opi2020) for modularity and flexibility

- Easy exchange and maintenance through Plug&Play
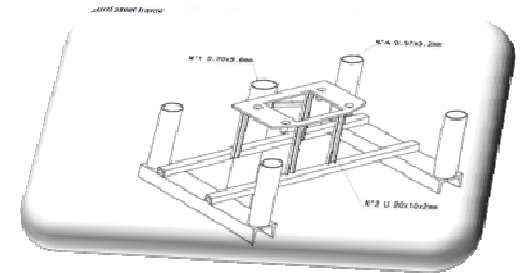
EVite – neutral and modular

Charge peak power - today
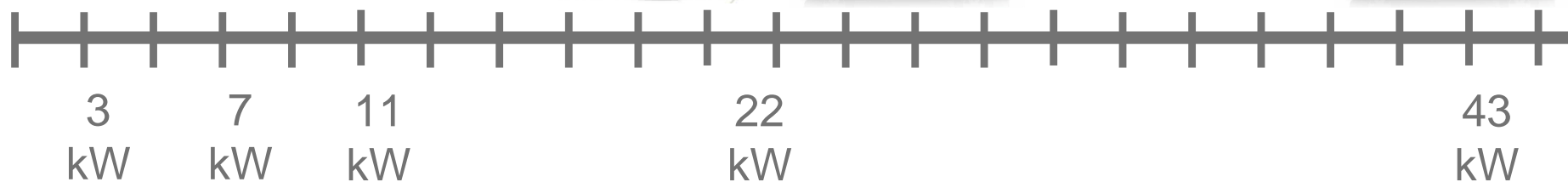
DC   **40-50 kW**

AC

All!

Optional only   No penalty   With penalty

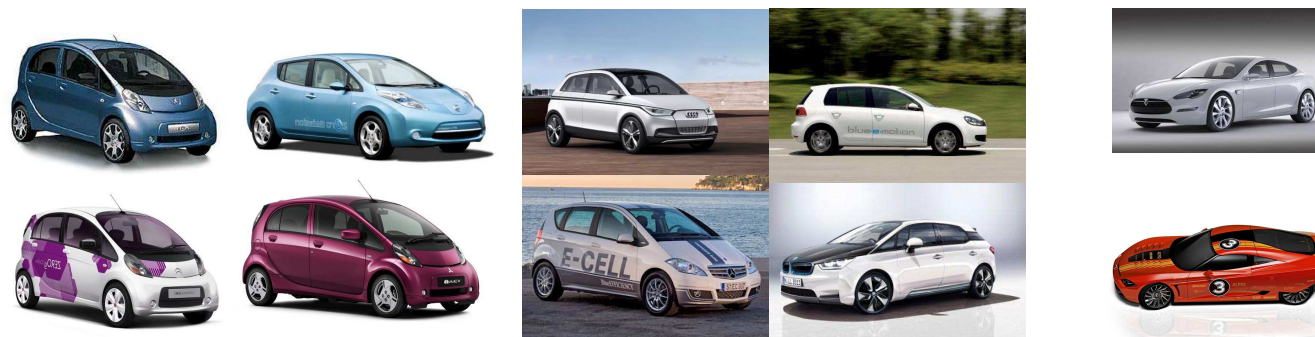| 3 kW	7 kW	11 kW	22 kW	43 kW

Source: Protoscar, Graphic depicts oly sample models and is not a complete listing
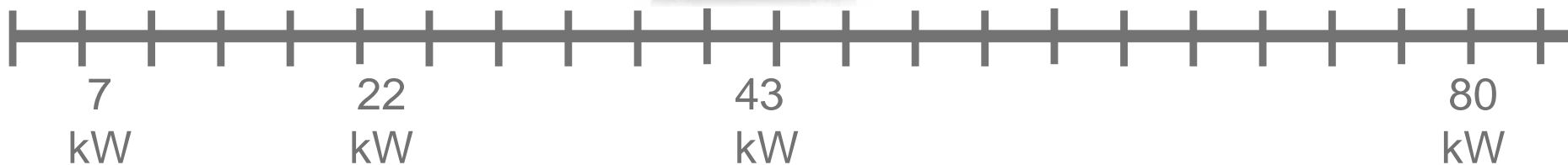
Charge peak power - tomorrow

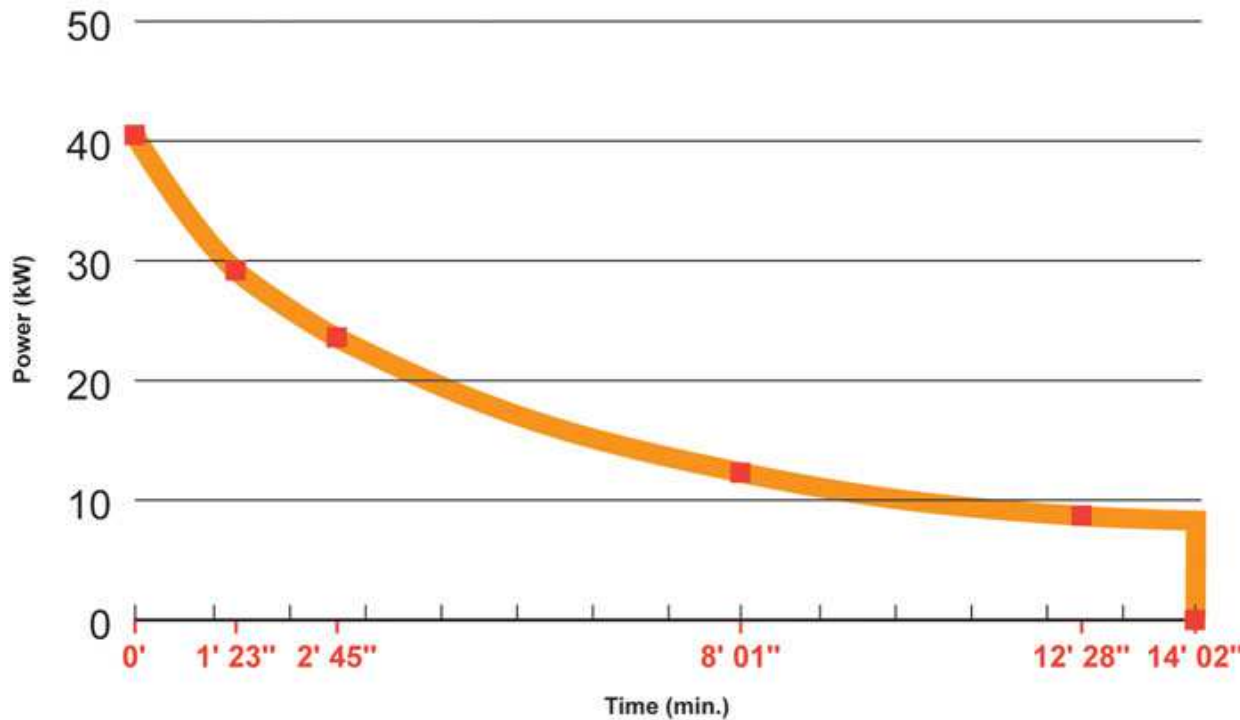DC   All: 40-50 kW (CHAdeMO-CAN und COMBO-PLC)   80 kW

AC
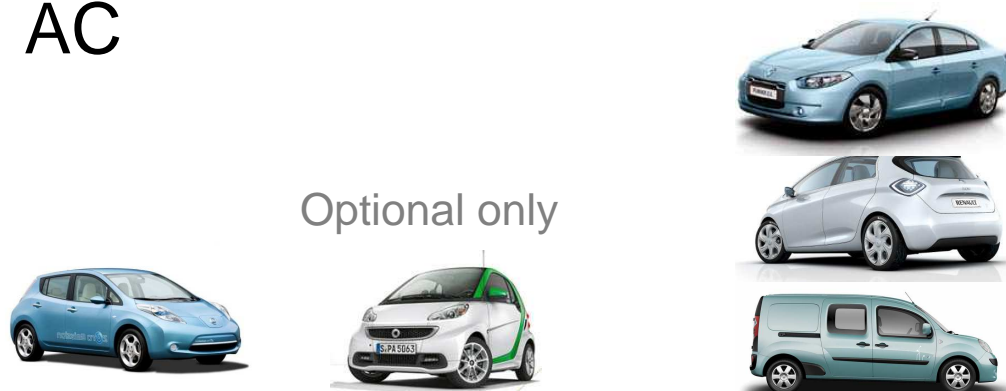
Optional only

| 7 kW | 22 kW | 43 kW | 80 kW |

Source: Protoscar, Graphic depicts oly sample models and is not a complete listing
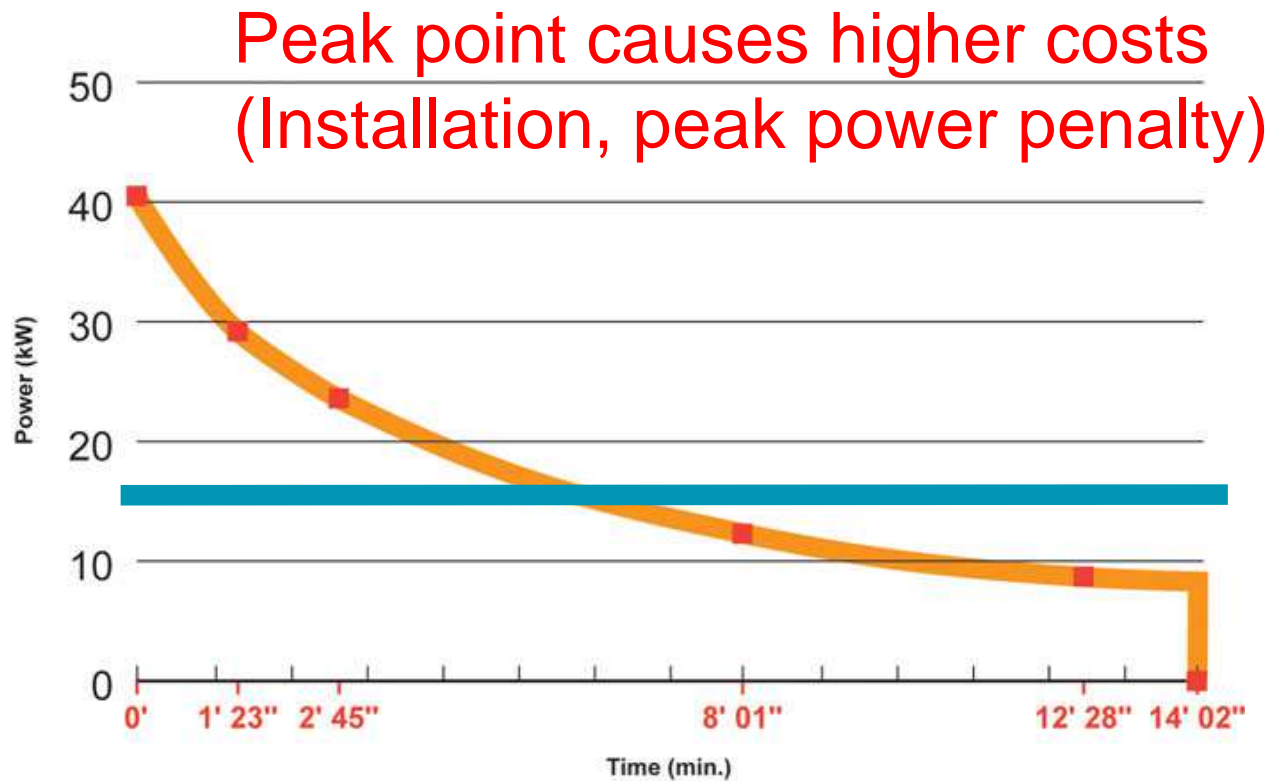
Average, ideal power

$$\frac{\int\limits_{0}^{T} W(t)\,dt}{T} = 16{,}9 \text{ kW}$$

14.8.2012, Oslo: ABB „Terra 51", Mitsubishi iMieV @ 20 C

Average, ideal power

Peak point causes higher costs (Installation, peak power penalty)
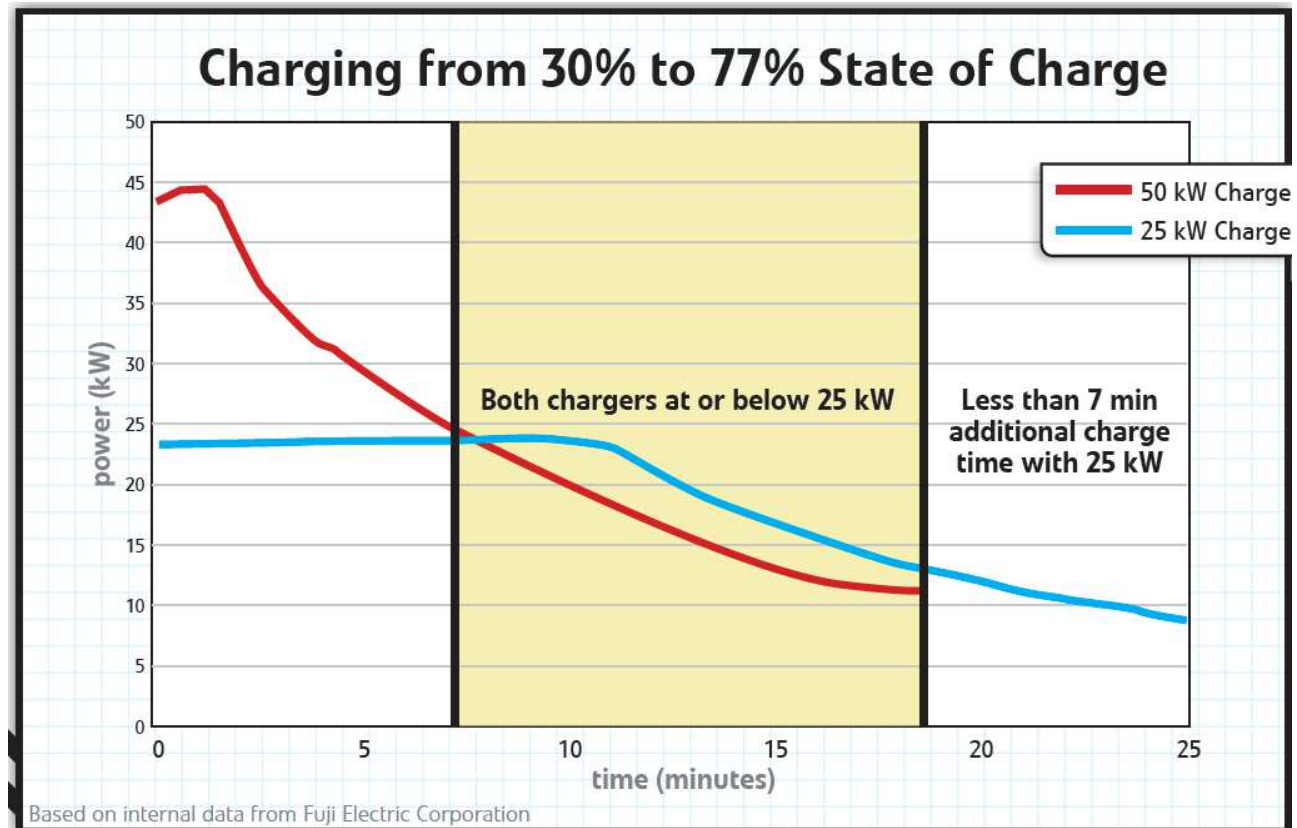
Average power that is usable

25kW vs. 50kW charge power

Fuji Electric to launch new EV charging stations in North America

ABR Staff Writer

N Published 25 January 2013

Charging from 30% to 77% State of Charge

- 50 kW Charge
- 25 kW Charge

Both chargers at or below 25 kW

Less than 7 min additional charge time with 25 kW

power (kW) / time (minutes)

Based on internal data from Fuji Electric Corporation

EVite – deployment

EVite map

In the default visualization all the filters are activated:

- free area
- reserved area
- assigned area
- CHAdeMO non-EVite
- 3-Phases non-EVite

EVite map

EVite map
1.) Reservation
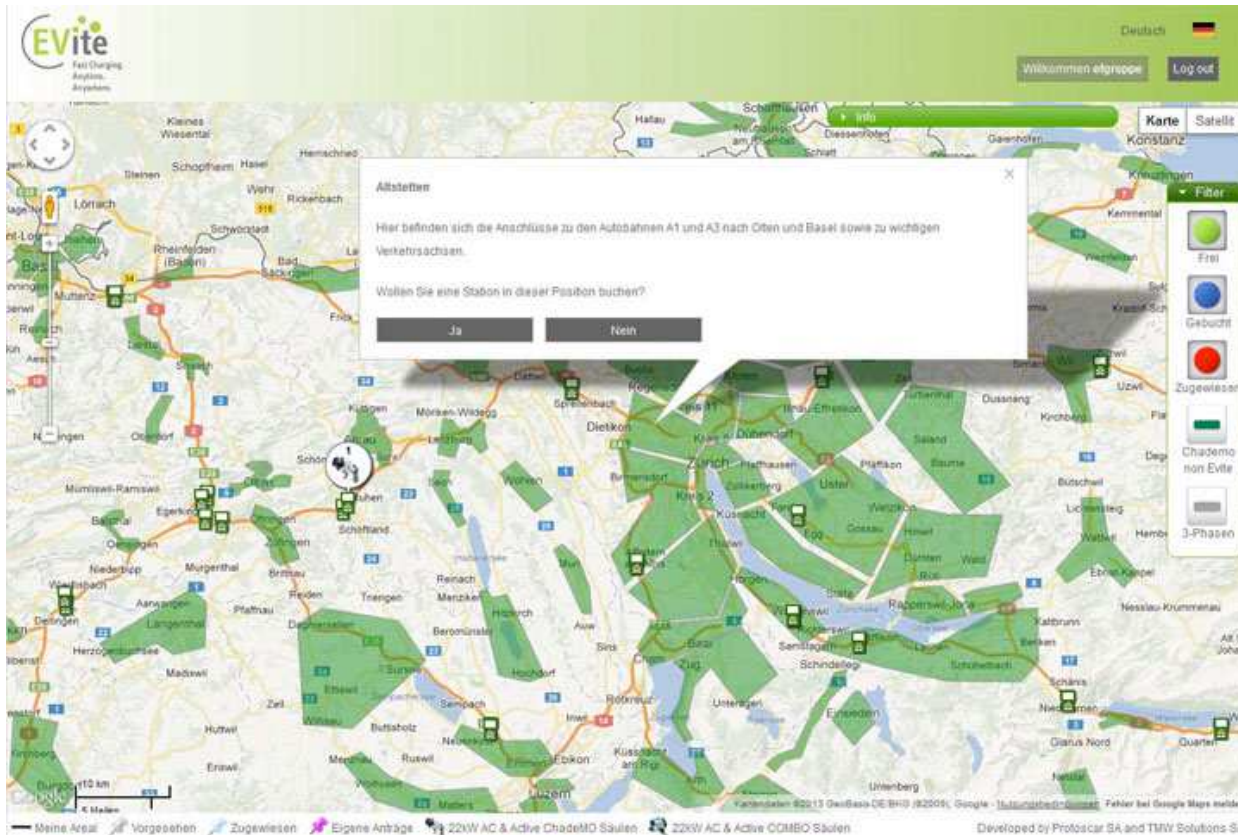
- Click on a green area to get its description

- Click on "Ja" if you wish to send a reservation request

- The same happens when clicking on a motorway icon

EVite map
2.) Reservation accepted

- When the request has been accepted, the area turns blue

- During a defined time period you send EVite a final confirmation which ensure installation of a Fast Charger

EVite map
3.) Final confirmation

- After your final confirmation, the area becomes red, indicating that the area has been assigned definitively

EVite map
4.) Registration
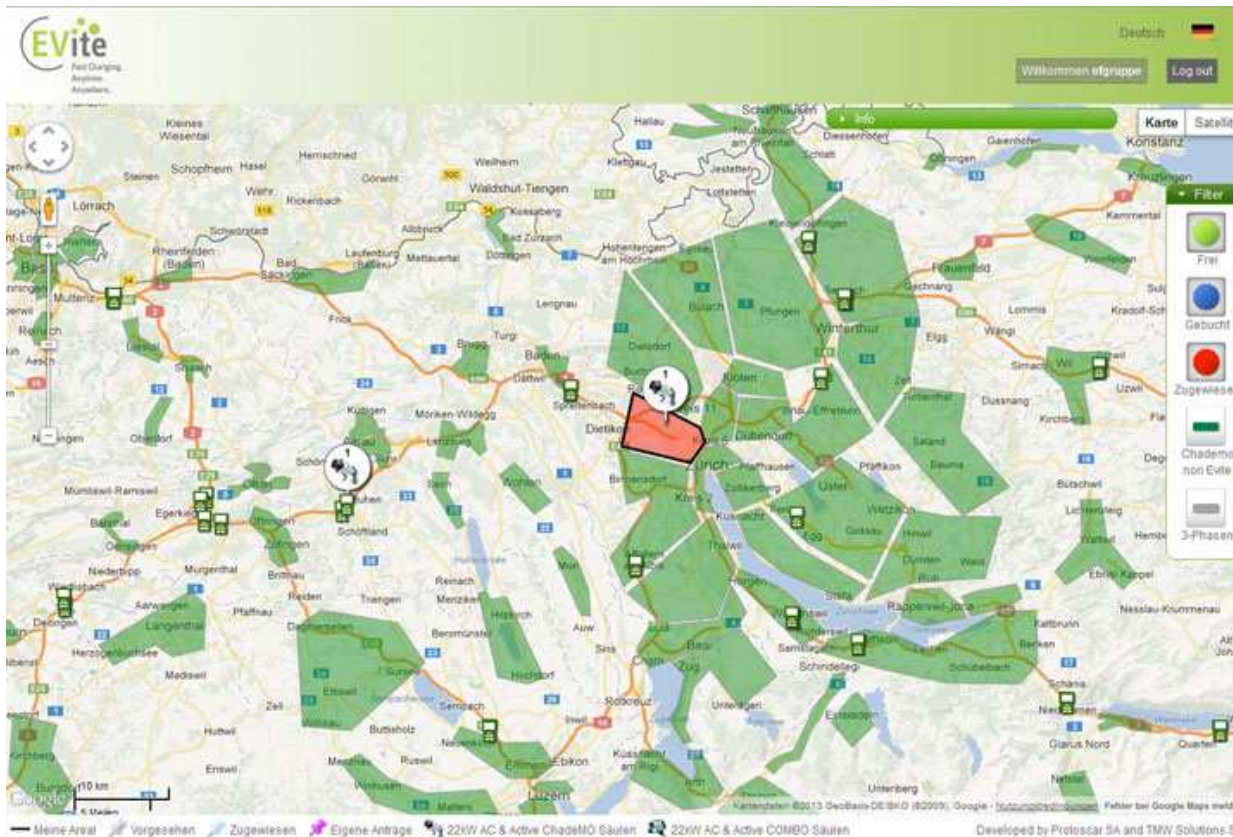
- When you confirm that EVite Fast Charger is in service, the Fast Charger icon (CHAdeMO, Combo or both) and the number of plugs appears on the area

Product configurator

http://configurate.andcharge.com

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Your Partner for Electric Vehicles and Charging Infrastructure

Markus Kramis

EVTEC AG

www.evtec.ch