

SMATRICS

Company presentation

NATIONWIDE CHARGING NETWORK

- More than **400 chargepoints** in Austria
- **Top locations** like supermarkets, shopping malls
- Charging speed at least **50 kW (DC)** and **22kW (AC)**
- Mobile app with route-planner & real time status of charge points (free, occupied)
- 24h customer support via hotline
- 100% **green energy** from hydropower



Development High-Speed Charging

- **65 High-Speed Charging Stations** (50 kW DC /43 kW AC) available
- Multistandard plug-technology



SMATRIC

Leading provider of e-mobility services
Vertically integrated CPO and MSP



SIEMENS

Verbund


OMV



SMATRICS Multistandard Fast Charging Stations



INTEROPERABILITY

- **Multistandard-Technology:** Compatibility with all types of commercially available EVs
- **Roaming:** cooperatuions with European CPOs/MSPs



Typ 2 Plug



CHAdeMO



CCS



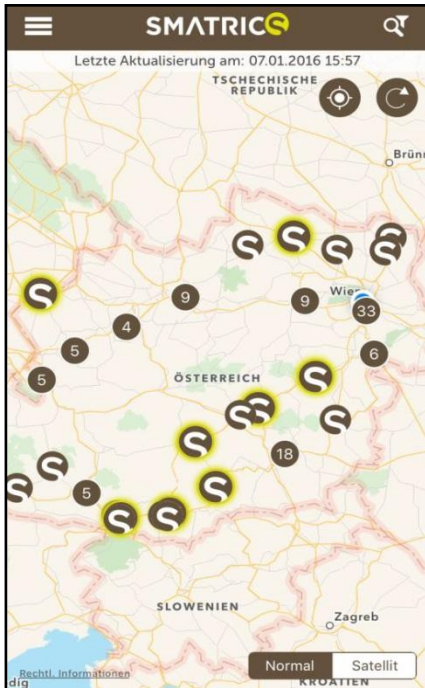
HUBJect
connecting emobility networks



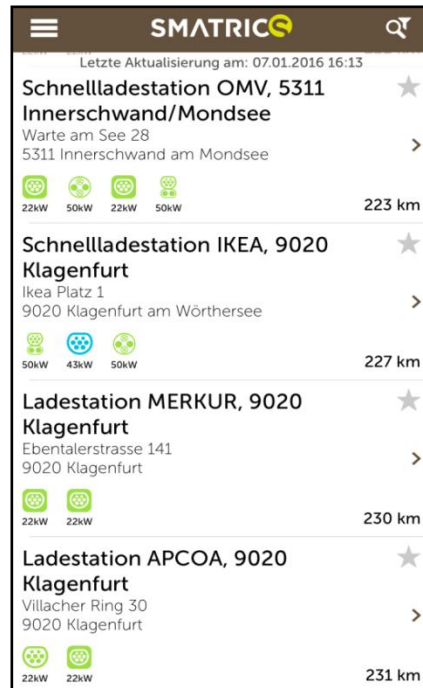
Mobile app

Functionalities: real-time information about charge point status, route planner, roaming etc.

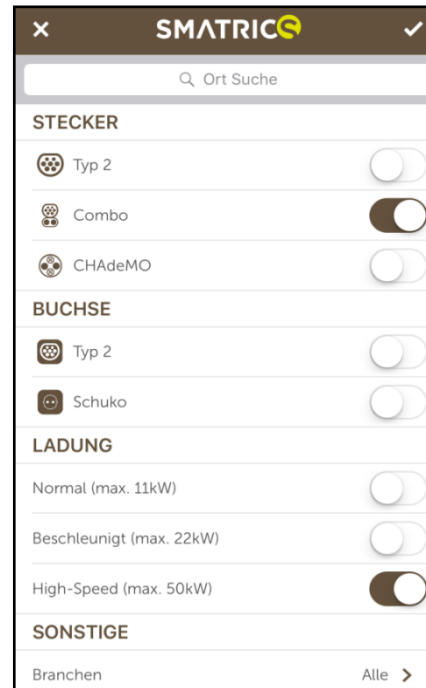
Search & find/
navigation



List view



Filter function



Remote start



SMATRICS time based pay per use tariff model

SINGLE NET No basic fee. No minimum term.	SMART NET The perfect mix.	ACTIVE NET The best choice for frequent users.
€ 0,- per month	€ 14,90 per month	€ 49,90 per month
no minimum term	12 month minimum term	12 month minimum term
Charging Plans		
NORMAL up to 11 kW € 0,04 per minute	NORMAL up to 11 kW € 0,02 per minute	NORMAL up to 11 kW € 0,01 per minute
ACCELERATED up to 22 kW € 0,15 / € 0,04* per minute	ACCELERATED up to 22 kW € 0,04 / € 0,02* per minute	ACCELERATED up to 22 kW € 0,03 / € 0,01* per minute
HIGH-SPEED up to 50 kW € 0,45 per minute Order now	HIGH-SPEED up to 50 kW € 0,20 per minute Order now	HIGH-SPEED up to 50 kW € 0,07 per minute Order now

- Pay per use + fixed fee
- Time based tariff model
- Tariff dependant on
 - Maximum output power of charge point provided
 - Power capacity of EV
 - Low rates for single phase/ 16A EVs

All prices incl. VAT, excl. activation fee of € 19.90 for the SMATRICS customer card. Each customer card is valid for one vehicle only. Replacement card: € 30,-; Charging plan downgrade : € 49.90. Valid from 01.01.2016.

All details regarding power relate to the maximum output of the charge point independent of the consumption of the vehicle.

*Applies to vehicles with a max. power consumption of 3.7 kW (AC) (independent of DC charging function).

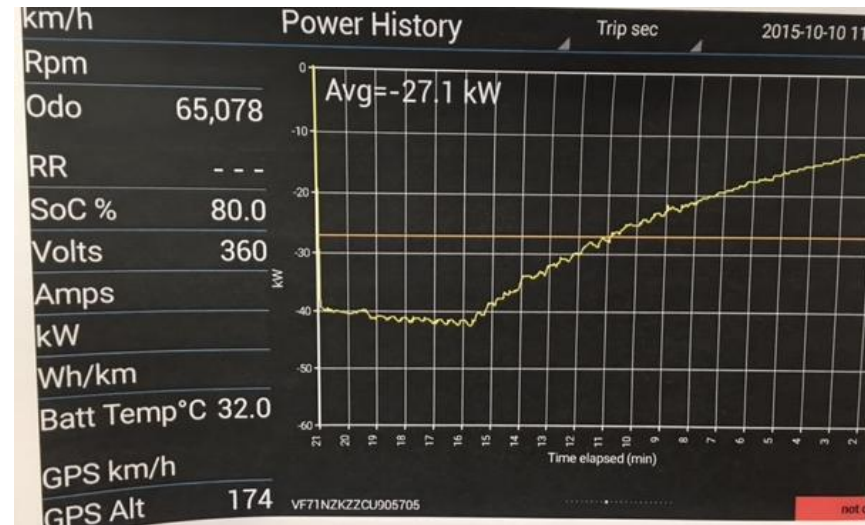
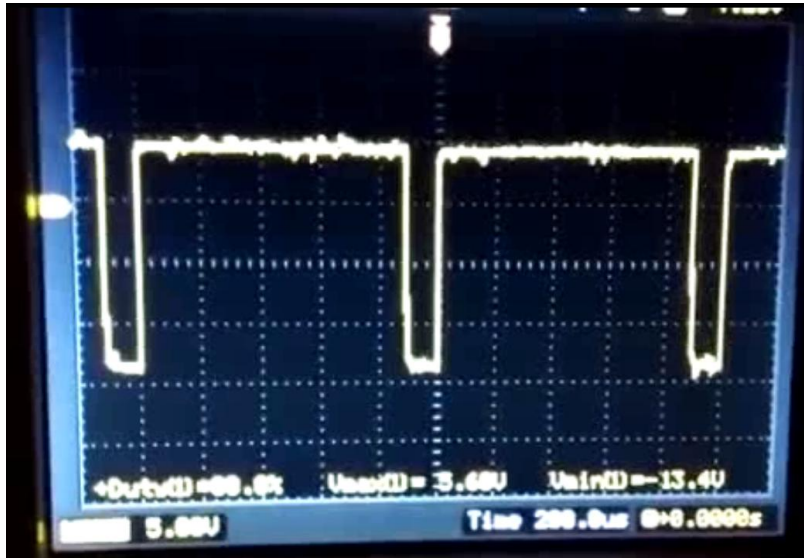
Goals as an operator

- Optimize ratio between **energy consumed** and **energy sold**
- Offer customers a **fair tariff model**
 - Energy vs time based tariff models
 - Constraints/ regulatory aspects: CP0 ≠ Energy retailer
 - PTB regulations (metering incl. DC) -> discussions ongoing



Operational challenges

- Providing customer maximum output power
- Dependency on external parameters
 - Outside temperature
 - SoC of EV battery
- Internal power management of charging stations
- Load balancing use case simultaneous charging (power limiting during ongoing charge session)



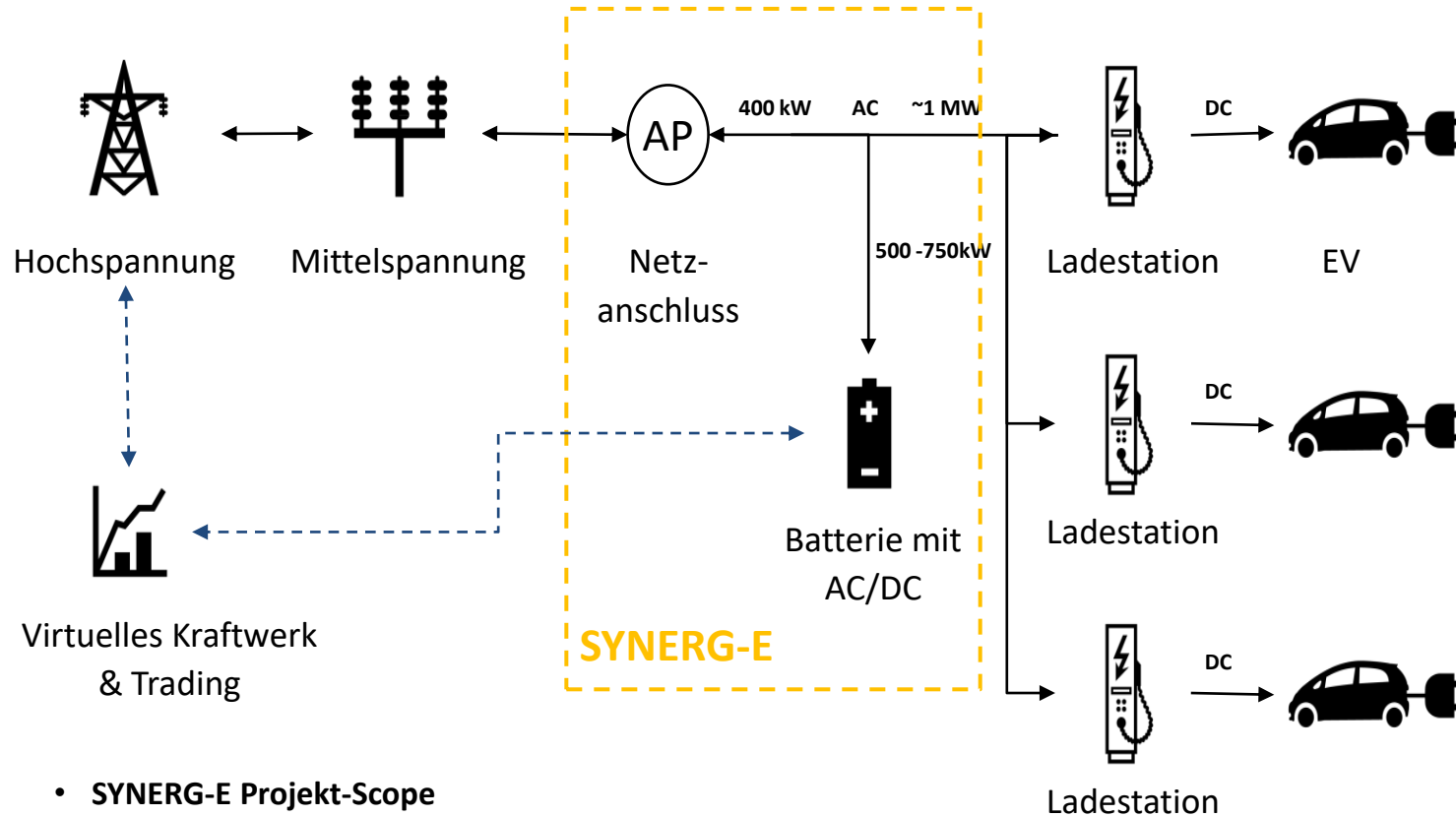
Energy efficiency

Total losses (year) & AC DC charging infrastructure comparison

	kWh	%
Energy provided (kWh)	887.851	82,90%
Energy losses (kWh)	183.084	17,10%
Total energy consumption (kWh)	1.070.935	100,00%

	AC	DC
Average power losses (W)	50	250

Battery storage solutions



- **SYNERG-E Projekt-Scope**

- Grid connection on medium voltage level ($\geq 400\text{kW}$)
- Battery storage solution 500 - 750 kWh, 1c)
- Dual use of batteries

The logo consists of the word "SMATRICS" in a bold, white, sans-serif font, followed by a stylized yellow "S" icon. The logo is set against a dark brown rectangular background.

SMATRICS

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