Building a Smart Charging Ecosystem in Amsterdam

Getting ready for mass market of (next generation) EVs

Frank Geerts, ElaadNL
8 February 2018

ARCHI 2018: 2nd Symposium Applied Research on Charging Infrastructure
Short introduction of partners

City of Amsterdam
- 2,400 public charging stations
- 17,000 unique monthly users
- 70,000 monthly sessions

Home, business & public
8000+ chargepoints
EU’s most advanced city charging network
Entire own fleet (3.500 vehicles) electric in 2023

Charge Wise:
Well-balanced Intelligent Sustainable Energy charging

DSO

Smart Charging

CPO & MSP

Location Owner

Since 2009
Dutch DSOs
50 experts

8000+ chargepoints
EU’s most advanced city charging network
Entire own fleet (3.500 vehicles) electric in 2023

Proud founder of
Amsterdam: the perfect pilot location
Testing and validating a future-proof Flex Capacity concept

Grid connection with Flexible capacity profile

Current grid connection
3x25A
First in the world implementation of OCPP 1.6 Smart Charging messages
Envisioned benefits for players in the Smart Charging Ecosystem

User

CPO

City

DSO

http

OPEN PROTOCOL
No negative effect for users

Indicative results

Charged km’s plotted on charging time
Difference on Flexpower locations with and without smart charging

- With smart capacity charging
- Without smart capacity charging
Flex Capacity profile speeds up charging & Effectively prevents local overload

Indicative results
“Spontaneous” increase of charging on local renewable electricity

Indicative results
Questions

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