Compleo load managment

Overview (as of 1 August 2023)

COMPLEO

Efficient and resource-saving installation of charging infrastructure – essential for market ramp-up

Electromobility has arrived in the mass market

Over 25% of new registrations are plug-in vehicles

Registration figures for EVs are reaching new heights every year. The EU's plans and the emission targets for car manufacturers clearly point the way to electrification.

This creates planning security. Charging solutions are not an isolated occurrence, but the new trend in the vehicle sector.

Total costs always in view

Costs can be saved especially during installation

A large part of the project costs are incurred by the grid connection and the installation of the charging points.

Innovative solutions such as load management can save up to 50% of the installation costs.

Remain flexible, also in the future

Customise configurations as required

Locations with charging points often develop phase by phase. Therefore, it’s important to have products that are future-proof.

It’s especially important for load management to have flexible priorities.

Load management

More vehicles, more charging points, more grid connection power? With Compleo load management, more vehicles can be charged on the same grid connection without overloading it.

What is load management?

Purpose and definition

For the installer

We save up to 50% on installation costs with Compleo load management and can therefore be competitive in projects, tenders and bids.

For the operator

We want to realise as many charging points as possible with the existing grid connection and thus minimise the running costs.

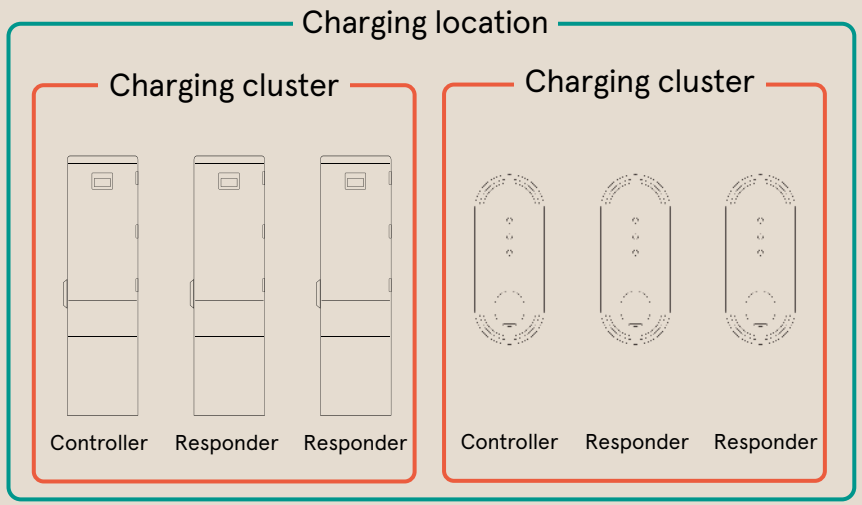
For the user

I want to make sure that my vehicle is fully charged by the end of the workday.

What is load management?

With load management charging processes can be organised so that the existing mains connection can be used and does not need to be upgraded.

Terminology



Load management | eBOX

Controllable in many ways via energy management systems

Charging power	**Up to 22 kW**
Connectivity	**WLAN, LAN, LTE**
Communication	**OCPP 1.6J**
Energy-/ Load management	**Modbus TCP/IP** **OCPP smart charging** **FNN-standard control box interface** **potential-free contact**

onboard load management

static ✓

Configuration & monitoring
- via webinterface
- via OCPP

Resilient operation via local network

external load management

backend ✓ via OCPP

EMS

- ✓ gridX
- ✓ smart1
- ✓ TQ
- ✓ CLEMAP
- ✓ Energielenker solutions
- ✓ Solar Manager
- ✓ ASKI ENERGIE
- ✓ Loxone

Load management | DUO

Can be interconnected as a group without recurring costs and can be expanded via energy management systems

Charging power	**Up to 22 kW**
Connectivity	**LAN, LTE**
Communication	**OCPP 1.6J**
Energy-/ Load management	**Modbus TCP/IP** **OCPP smart charging**

onboard load management

static ✓ via Compleo DUCTO

external load management

backend ✓ via OCPP

EMS

- ✓ gridX
- ✓ Energielenker solutions
- ✓ smart1
- ✓ Loxone
- ✓ The Mobility House
- ✓ ASKI ENERGIE

Load management | CITO

Can be interconnected as a group without recurring costs and can be expanded via energy management systems

Charging power	**AC: 22 kW; DC: 50 kW**
Connectivity	**LAN, LTE**
Communication	**OCPP 1.6J**
Energy-/ Load management	**Modbus TCP/IP** **OCPP smart charging**

onboard load management

static ✓ Configuration in factory or as field service

external load management

backend ✓ via OCPP

EMS

- ✓ gridX
- ✓ Energielenker solutions
- ✓ smart1
- ✓ Loxone
- ✓ The Mobility House
- ✓ ASKI ENERGIE

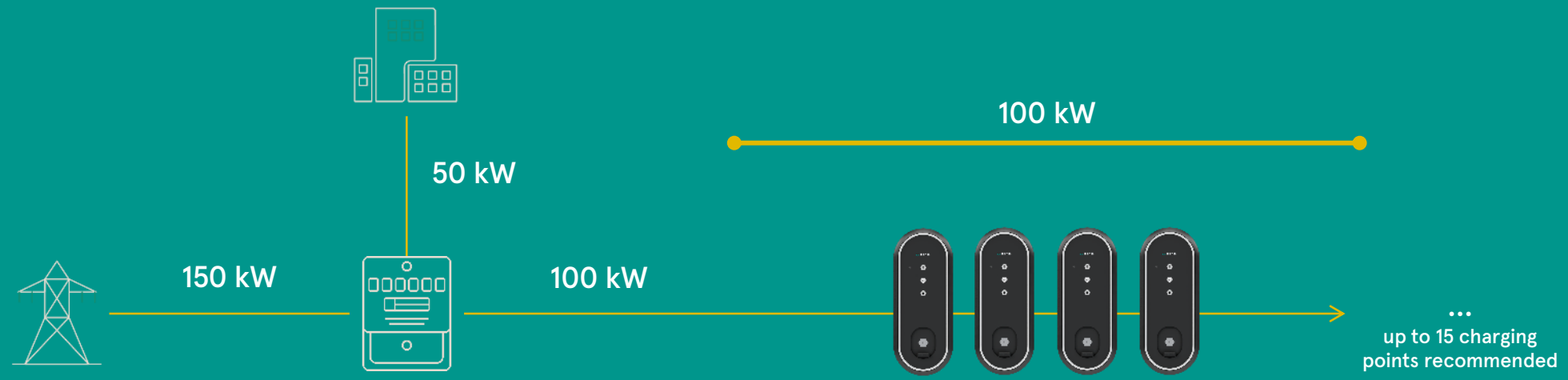
**at additional cost*

Different types of Compleo load management can be selected depending on location and use

A	onboard load management
A^1	static
B	external load management
B^1	backend
B^2	EMS (dynamic)

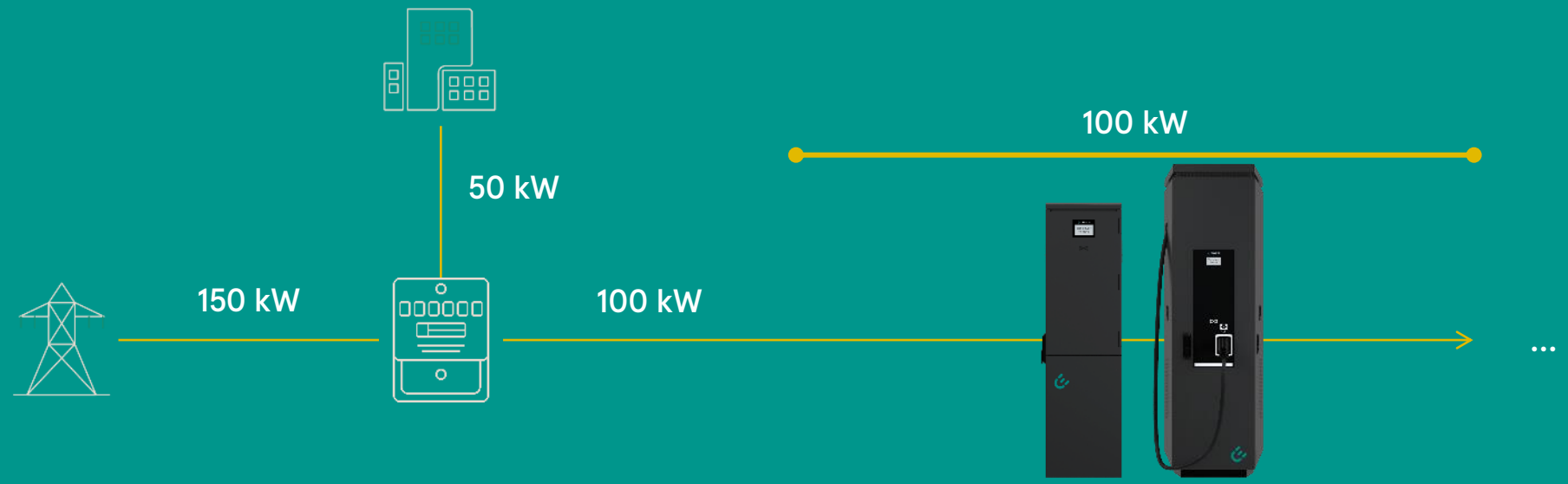
A – Onboard load management

A1 – static | optimisation within charging cluster with fixed upper power limit | eBOX (as of October 2023)



A – Onboard load management

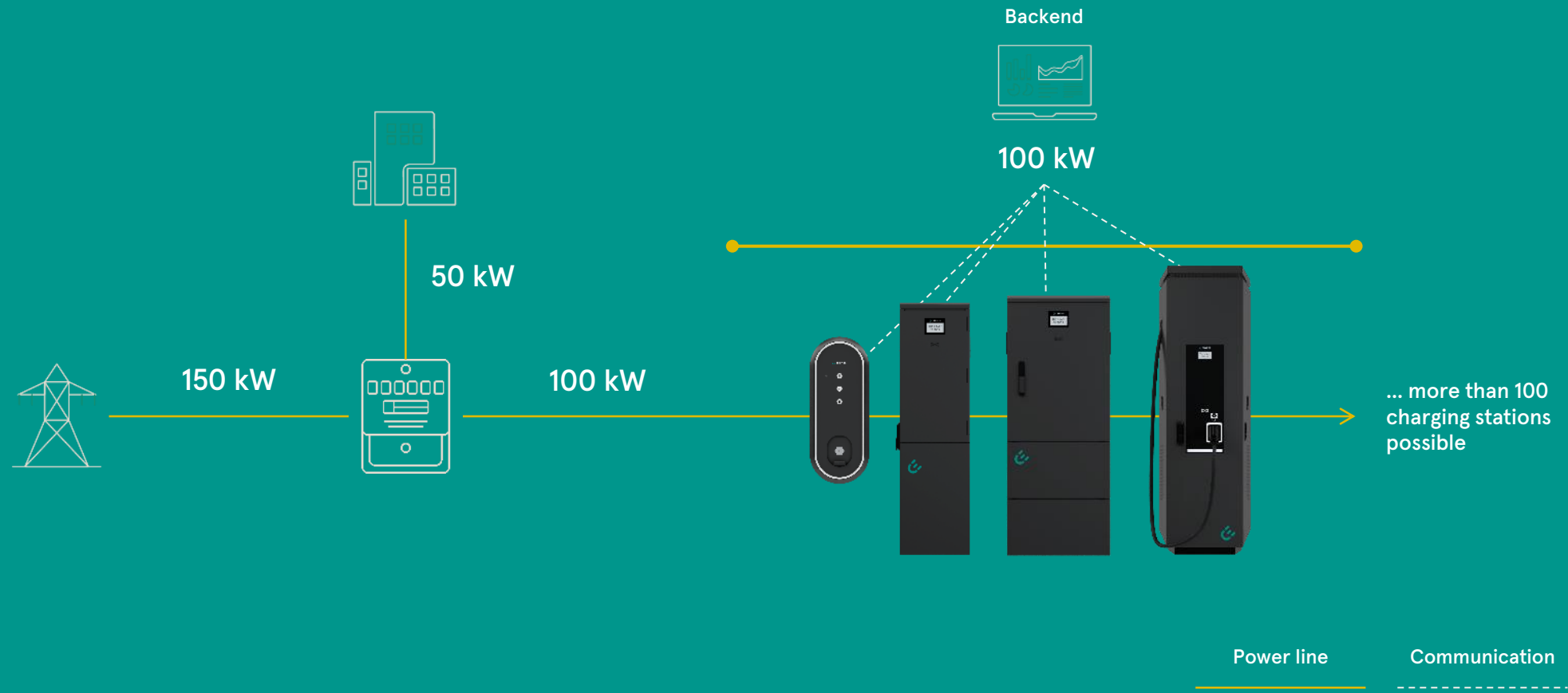
A1 – static | optimisation within charging cluster with fixed upper power limit | DUO / CITO 500



Power line

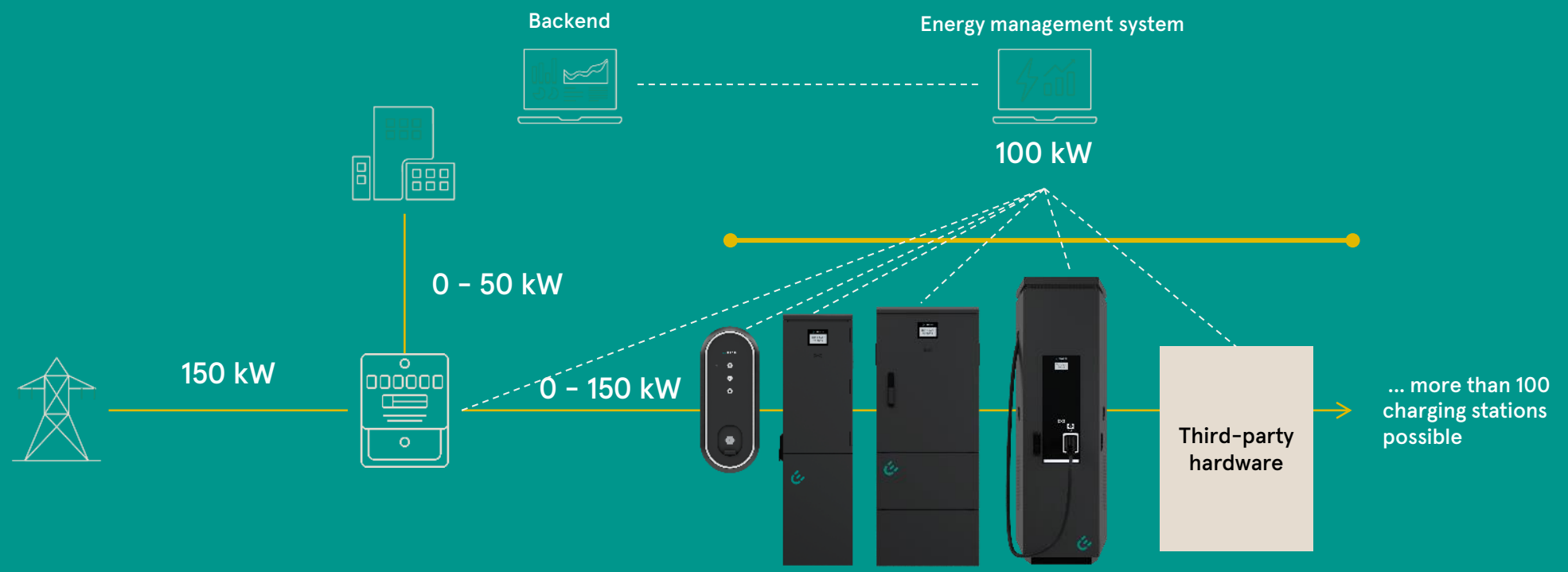
B – External load management

B1 – backend | optimisation within charging cluster with static power limit



B – External load management

B2 – EMS I optimisation within charging cluster using a dynamic power limit *



** calculated from measurements or communication with other devices by an external energy management (EMS) system. EMS providers recognised the need for connected industrial computers for charging locations, which can act as a gateway to harmonise billing and monitoring services with a dynamic load management.*

Your contact

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