

# Concept Professional

## Planning your ideal charging solution

### Specification of services

#### Pos 1: Analysis of initial situation and objectives

- Project kick-off meeting via video with the project lead of The Mobility House
- Joint elaboration of the specific charging infrastructure requirements for one scenario
- Collection of the individual mobility profiles based on the relevant user groups and their characteristics (e.g. charging energy demand, vehicle downtimes)
- Evaluation of the electrotechnical situation considering the planned installation locations
- Acquisition of the site energy profile based on the historical electricity and power consumption

**Goal:** *Comprehensive acquisition of all relevant information for the development of the charging infrastructure design*

#### Pos 2: Charging solution design

- Requirement-oriented investigation of the user behavior by aggregating individual driving profiles to a collective fleet profile of the entire charging infrastructure
- Simulation of charging events for a critical day to derive the necessary grid limit for the specific charging requirements, the site energy profile and the current power reserves
- Identification of the optimal charging strategy and definition of specifications for the charging hardware and software (e.g. required charging power, need for grid connection expansion, communication, billing options, use of load management)

**Goal:** *Identification of a charging solution suitable for the requirements including the optimal grid limit*

#### Pos 3: Implementation planning

- Preliminary planning of the implementation based on existing site plans/electrical plans and the findings of the site analysis (e.g. placement and installation of the charging hardware, design of the sub-distribution and supply capacity)
- Estimation of the installation effort and cost indication
- Creation of an implementation checklist with an overview of the next steps of the charging infrastructure project

**Goal:** *Development of a recommendation for the responsible project manager of the implementation*

#### Pos. 4: Additional information about charging electric vehicles

- Description of various roles for the operation of charging stations and their implications
- Overview of possible charging station types and connector types at the charging stations
- Assessment of the legal situation regarding electricity sales
- Summary of cost components of a charging solution

**Goal:** *Explanation of relevant aspects of the charging infrastructure for non-experts*

#### Pos. 5: Recommendations for action

Summary of the results and recommendations for the optimal charging solution (hardware, software), the implementation and operation of the charging infrastructure including an overview of the expected total costs.

**Goal:** *Basis for a following detailed electrical planning, implementation and operation of the charging solution*