Service for Charging Infrastructure Usage Analysis: Service Description

Make the Usage Data Work for You

Summary

This document describes the service offering available from AC2SG Software for analyzing the performance and usage of the Electric Vehicle (EV) charging infrastructure. This service has been designed to provide a practical, high-value set of information for the charging infrastructure owner and/or operator without needing to install specific software or analysis tools for this purpose. In order to do this, the service combines real usage data with AC2SG Software's knowledge and analysis.

The service is always tailored to the specific needs of the client, but the basic outline of the service delivery is as follows:

1) Kick-off meeting to set targets and agree on data collection
2) Data collection set-up
3) Key Performance Indicator (KPI) and report definition
4) Data analysis
5) Report creation and review with the client
6) Ongoing review of KPIs and results (every 1-3 months)
7) Periodic, long-term review (once a year)

Steps 1) – 5) above are related to a one-off project, which is a useful way of approaching things when there is a specific topic that needs to be looked at. In the case that there is a need to review the business and its development over a longer period of time an continuous service is

recommended, this is performed by adding steps 6) – 7) into the process and repeating steps 3) – 7) as often as required by the client.
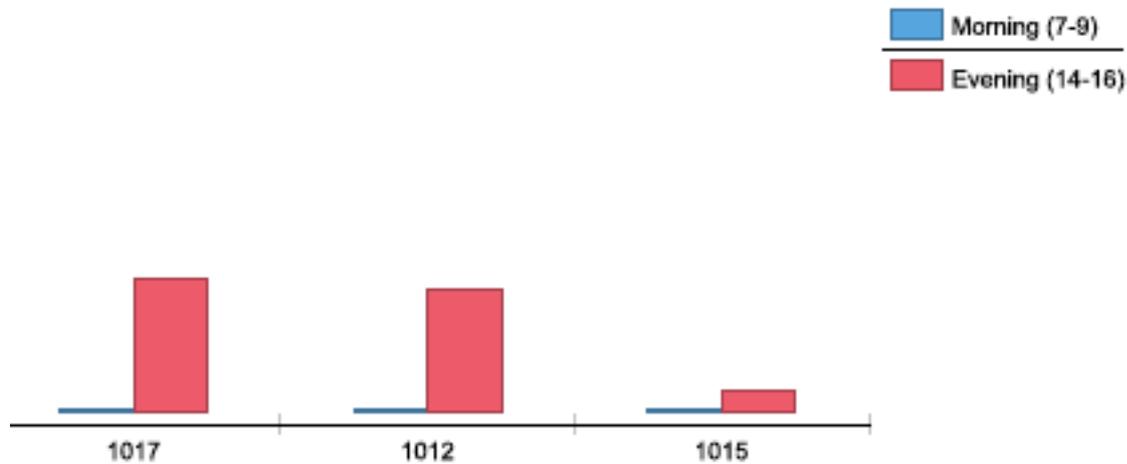

Figure 1: Sample report on distribution of charging sessions on specific times of the day

The service provides the clients with tailored, customer specific analysis of the EV charging infrastructure to help with some or all of the following issues:

- Further planning and expansion of the charging network
- Decision making about the pricing level and structure of the charging service
- Analyzing customer experience, satisfaction and behavior
- Review of customer usage patterns
- Analysis of charging usage patterns based on the time of day, day of the week
- Changes in usage after pricing changes, campaigns or other promotional activities

The usage data is stored in a separate database for the analysis purposes. The data collection can be done as one-off (database transfer) or as real-time collection of data via an on-line interface. These can be set up to facilitate the data transfer and while one-off transfer is easier to perform, it is recommended that an interface be used to ensure that the analysis can be performed on up-to-date data and there is a possibility of repeating the analysis later on.

Main Advantages of the Analysis Service

The analysis service has the ability of analyzing the key issues of the charging infrastructure usage and customer behavior. The analysis can be performed on a variety of factors and can tailored to fir each clients needs. This ensures that the results are relevant and address the key topics to be addressed at any given point in time of the EV charging network operation.

Typical topics to be addressed early on are for example:

- location selection for the poles

- number of poles used

Later on these topics will have less relevance and the analysis should look at:

- capacity issues and expansion needs
- customer usage patterns

Later the emphasis will shift to customer satisfaction:

- customer satisfaction
- usage patterns
- uptime and availability

The service and the KPIs can address any topic that is the most important for the pole owner/operator at any given point in time. The flexibility of the approach makes it possible to analyze any aspect of the network.

The delivery of this as a service for the client means that decisions on permanent data storage solutions and analysis software do not need to be made. The data storage and handling is done by AC2SG Software and is included in the price of the service. This speeds up the delivery of the service, but also creates a possibility of repeating the analysis later on.

Summary

This service provides a turn-key anlaysis of the EV infrastructure usage and patterns. This analysis will help with the investment planning, charging service re-design, planning and distribution of the charging locations as well as with customer service improvements.

The service delivery is fully handled by AC2SG Software, the client simply needs to define the key questions to be answered or indications of the types of indicators that should be followed. It is also possible to have AS2SG Software provide recommendations on these.