CITY OF BRUGES
ENVIRONMENTAL DIVISION

BRUGGE

INSTALLATION AND OPERATION OF DC FAST CHARGING STATIONS

Submission of candidacy by **28 August 2020** at the latest to the Environmental Division of the City of Bruges, in electronic form (PDF format) FAO e-mail address Koen.Timmerman@brugge.be or veronique.soulliaert@brugge.be

1 POSITION & PURPOSE

1.1 INITIATOR

City of Bruges, Environmental Division

The City of Bruges subscribes to the Covenant of Mayors 2030 and, for this reason, is aiming to reduce local CO_2 emissions by 40% by 2030. For this purpose, a 2030 climate plan will be drawn up with consideration for the following deliverables: 1) heating differently, 2) more local solar and wind energy, 3) CO_2-neutral mobility, 4) CO_2-neutral manufacturing, 5) CO_2-neutral consumption, and 6) climate adaptation

As part of its climate plan for 2020-2030, the City of Bruges aims to have particular consideration for the energy transition in mobility flows. More specifically, the City of Bruges wishes to facilitate the charging of electric vehicles. Today, there are 60 public AC charging stations in Bruges, operated by the firm Allego, in collaboration with Fluvius. In addition, there are a number of fast charging stations in private operation.

The City of Bruges wishes to add public fast charging stations to this offering.

The policy around climate objectives in the City of Bruges is monitored by the strategy unit via a multi-disciplinary internal climate team.

1.2 PURPOSE

The City of Bruges aims to put its best efforts into the developments around electric mobility. It is clear that the charging time for electric vehicles is becoming an ever more important element in this, in particular for professional users (e.g. taxi firms, courier companies, sales representatives, etc.), but also for recreational visitors to the city and its residents.

Fast charging stations that make use of direct current (known as "DC charging stations") are becoming ever more prominent as a suitable solution for the public charging of electric vehicles. These charging stations allow for a far higher charging power than charging stations using alternating current (AC charging stations). More and more electric vehicles have the ability to use DC charging. The City therefore expects that demand will rise for charging stations where users can charge their vehicles quickly.

The market for electric vehicle charging, however, remains in rapid development and there are a great many uncertainties that must be taken into account. For example, it remains unclear what the charging behaviour of motorists will be: will most of them "fill up" at home or at their employer's/customer's premises, or will they use public charging stations while on the road or at their destination. In addition, the technical development of charging stations is seeing rapid evolution, in particular as regards DC charging stations.

In order to offer its citizens, companies and visitors the opportunity to charge their electric cars quickly despite these uncertainties, the City of Bruges has decided to offer various providers the opportunity to install a DC fast charging station at two locations in the territory of Bruges. This will take the form of **a two-year pilot project**. Following this two-year period, an evaluation will be made to determine the further strategy and approach based on the information obtained thanks to the pilot project.

1.2.1 Preparations

Prior to issuing this selection procedure, the Environmental Division has had an investigation carried out into the necessary technical preconditions, potential operating conditions and the present range of DC charging stations available on the market.

The locations at which the opportunity would be offered to install a DC charging station and the conditions for this were arrived at based on the information collected during the preparatory phase.

1.2.2 2nd step of the market consultation

Given that the first step of the market consultation revealed that the market for DC charging is still at an early stage, with a multitude of actors and a wide range of offerings, the City has decided to utilize an open approach, whereby the opportunity to install a DC charging station will be offered to various providers. **This will allow the providers to test out their market model, both functionally and technically, at a commercially interesting location.** The City is setting multiple conditions for this in order to ensure that its own objectives, being offering the opportunity to charge electric vehicles quickly while gaining information on charging behaviour, are also met.

2 PILOT PROJECTS FOR DC FAST CHARGERS

2.1 PRE-SELECTION

2.1.1 Approach

Given that the City of Bruges aims to apply as broad and open an approach as possible, it was decided to make a selection as to which candidates will be permitted to install a DC charging station. A pre-selection will be made on the basis of the technical and commercial proposal submitted, within the framework of conditions described below.

All interested actors who can carry out the services described within the conditions set are invited to participate in this.

Based on the proposal provided, a maximum of 2 candidates (or consortia) will be selected to install and operate a DC charging station.

Should it emerge that additional information is necessary in order to make a final choice, the City will give the candidates the opportunity to further clarify their proposal.

2.1.2 Technical and functional requirements

In order to be eligible, the proposal will need to meet at least the following technical and functional requirements:

- Scope of the proposal:
    - Installation and operation over a two-year period of a DC charging station with a minimum charging capacity of 50kW, which has a real-time data communication facility through the use of a mobile data connection;
- Interoperability and publication:
    - the charging station must be able to be activated by a multitude of Mobility Service Providers (thanks to the use of OCPI, for example)
    - the charging station must be published via collaboration agreements on a variety of platforms and smartphone apps
    - charging cycles must be able to start through at least the use of an RFID charging pass and, potentially, a smartphone app
    - real-time information on the charging station must be shared (including status, number of charging points and tariff)
- Presence of an occupation management system
- At least the following data must be collected by the operator and this data must be shared with the City of Bruges every six months:
    - Performance overview for the charging points;
    - General overview of the charging transactions with daily and monthly totals;
    - Detailed overview of the charging sessions: Start date & time, Stop date & time, Volume (kWh), Max. charging capacity used, Charging point ID, Charging point address, authentication ID (e.g. UID of the RFID pass).

Besides this, we are asking for a description of the extent to which the candidate is in a position to share information on the nationality of the charging station's users and whether or not the usage is of a professional nature.

Several of these functional and technical requirements are described in more detail in point 2.2, along with the award criteria.

Award criteria
The selection of the candidate for installation and operation will take place on the basis of the following differentiating criteria:

- Quality of the proposal, including its innovative and forward-looking nature

- The candidate's experience with similar projects
- Availability guarantee:
    - guaranteed availability percentage
    - proposal for compensatory penalties in the event of unavailability
- Tariffs for charging sessions
- Concession fee

2.1.3 Preparation

The following details can be made available to any interested companies in preparation:

- A detailed description (with photos) of the two proposed locations for which a bid can be submitted for installing the DC charging stations
- The technical properties of the electrical connection at the proposed locations

2.2 EXPECTATIONS OF PROPOSAL

2.2.1 Approach

The City of Bruges is offering companies involved in the production, installation and/or operation of DC charging stations the opportunity to install and operate a DC charging station at a commercially attractive location.

The City is tendering a concession for this for a two-year period and views this two-year collaboration as a pilot project. Once this two-year period ends, the City of Bruges will make an evaluation of the collaboration and results of these pilot projects. The City of Bruges will then decide whether to proceed with a permanent fast charging infrastructure offering and in what form.

After assessing the proposals submitted, the City of Bruges will make a choice as to the two candidates with whom a concession agreement for the installation and operation of a DC charging station will be concluded on the basis of the award criteria. The City reserves the right to select only one or even none of the proposals submitted here, should it deem that the proposals submitted do not meet its expectations.

2.2.2 Contents

The proposal must describe the following topics:

Identification of the candidate

Full description of the candidate's identity, legal form, company number, legal representatives, etc.

Track record

The candidate must describe its experience in the production, installation and/or operation of charging stations in general and DC charging stations in particular.

Choice of location and timing of implementation

Two locations have been selected where a DC charging station could be installed. In principle, the City of Bruges will choose a different candidate for each location. The candidate should indicate in its proposal whether they are interested in both locations, including a preference for one of the locations (if any).

Following the award, the concession-holder should install the DC charging station and commission it by 18 december 2020 at the latest. The candidate should confirm in its proposal that they can carry out the installation and commissioning by the aforementioned date, taking account of the timing described in point 2.4.2 of this call.

The candidate should describe what the maximum period is that they will need after the selection date to install and commission the DC charging station.

Description of the proposed type of DC charging station

The candidate must describe exactly which type of DC charging station they will install and include a detailed data sheet with the proposal, along with an indication of how many charging stations of this type have already been installed worldwide.

The proposal should also confirm that the charging station has a real-time data communication facility through the use of a mobile data connection. No Ethernet or other cabled data communication connection will be made available at the location.

Given that the present call regards the implementation of a pilot project, the City of Bruges is also open to proposals using a new type of DC charging station or a prototype in an advanced phase of testing. In this case, the proposal should describe the entire course of development up to now and what advantages this new type or prototype offers compared to more common, commercially available, types of DC charging stations.

Publication and compatibility with (other) providers of charging services

It is of the utmost importance that the charging station is published on as many platforms as possible, usable by a maximum number of users and can be found on the most common apps.

The candidate must demonstrate in its proposal that they will meet the following conditions:

- the charging station can be activated by a multitude of Mobility Service Providers (thanks to the use of OCPI, for example)

- the charging station will be published via collaboration agreements on a variety of platforms and smartphone apps
- charging sessions can be started through at least the use of an RFID charging pass and, potentially, a smartphone app
- real-time information on the charging station will be shared (including status and number of charging points)

Approach to charging station occupation

In order to ensure that the charging station can see maximum usage, the operator should provide a system that avoids unnecessary occupation of the charging station. This could be, by way of example, through choosing a charging tariff with a fee per minute of occupation, through a notification via an app or by text, after which any occupation fee is charged, or through other innovative methods.

The candidate should describe in the proposal what approach will be taken in order to ensure that the charging station does not see unnecessary occupation.

Collection and sharing of the operational data

In order for the City of Bruges, during the course of the pilot project and once it has ended, to make an analysis of the project's success, the developments, the types of users, the charging behaviour, etc., operational data should be collected and the City should receive this data from the operator on a regular basis.

The proposal must describe what data the candidate will share with the City of Bruges and the frequency with which this reporting will take place (monthly, quarterly or half-yearly).

In any event, the candidate must confirm in the proposal that:

- The charging station has a real-time data communication facility through the use of a mobile data connection;
- At least the following data will be collected by the operator and that this data will be shared with the City of Bruges every six months:
    - Performance overview of the charging points;
    - Summary overview of the charging transactions with daily and monthly totals, distribution of the charging transactions throughout the day, etc.;
    - Detailed overview of the charging sessions: Start date & time, Stop date & time, Volume (kWh), Max. charging capacity used, Charging point ID, Charging point address, authentication ID (e.g. UID of the RFID pass);

In addition, we are asking for the extent to which the candidate will be able to share information on the nationality of the charging station's users and whether or not the usage is of a professional nature.

Availability guarantee and helpdesk:

The operator will be asked to provide an availability guarantee. This means that the selected candidate must offer a guarantee that the charging station will be technically available (i.e. functional and charging or ready to charge) for a certain minimum duration during the year.

The City of Bruges is aiming for a minimum availability level of 95%, calculated every six months from the date of the charging station's commissioning. This means that the charging station is technically available for 4,161 of the 4,380 hours covered by a six-month period. However, the City of Bruges will leave it to the candidate's discretion as to whether to give a higher or lower percentage in the proposal, so that this can be used as a differentiating factor between the proposals.

The availability percentage will be calculated after deducting the time when the charging station was unavailable owing to one of the following reasons:

- planned maintenance on the charging station and appurtenances (frequency and duration to be indicated in the proposal);
- physical inaccessibility of the charging station, which was not caused by the operator, those appointed by them or their sub-contractors;
- causes outside of the charging station operator's control, with an obligation upon the operator to keep these as short as possible (for example, in the event of damage to the charging station, the operator should repair this as soon as possible).

The candidate must describe in the proposal what availability guarantee they are offering and what financial compensation (the penalty amount) they propose for every 6 hours that the charging station has not been available when it should have been. This penalty amount will also be used as a differentiating factor between the proposals.

In addition, the proposal must also confirm that a 24/24-hour, 7/7-day helpdesk service will be offered for the charging station's users, along with a description of how this helpdesk service will be organised.

Tariffs for charging sessions

The candidate must indicate in the proposal what charging tariff they will apply. There are three possible types of tariffs for charging sessions:

- Fixed starting tariff (charged irrespective of the charging station's duration of use)
- Tariff per kWh charged
- Tariff per minute that the vehicle is occupying the charging station

The proposal should describe what tariffs the operator will apply (types of tariff, level of the tariff, etc.). The tariff per kWh charged may not exceed €0.50/kWh.

The candidate must confirm in the proposal that the tariff will be published in the area of the charging station and will be clearly visible, and will be made available via the collaboration platforms, so that the user knows the charging tariff before commencing the charge.

The tariffs will be used as a differentiating factor between the proposals.

Concession fee

The City of Bruges offers the candidate the possibility to pay an annual concession fee to the City. The proposed concession fee will also be taken into consideration when assessing the proposals in respect of one another.

The City is open to both fixed concession fees and variable concession fees here (based on the number of kWh charged, for example).

2.2.3 Preparation

See 2.1.3

2.3 CONSORTIA

Candidates are allowed to form a consortium, if they wish. In such an event, they should report the name of the consortium and of its responsible contact, along with the identification of the participating partners.

2.4 AWARDING THE CONCESSION

2.4.1 Submitting a proposal

A maximum of two candidates will be selected to install and operate a DC charging station. In order to be part of this selection, interested candidates should submit a proposal that meets the expectations described in point 2.2, so that the proposal can be assessed in accordance with the criteria described.

- Quality of the proposal, including its innovative and forward-looking nature
- The candidate's experience with similar projects
- Availability guarantee:
    - guaranteed availability percentage
    - proposal for compensatory penalty payments in the event of unavailability
- Tariffs for charging sessions
- Concession fee

The proposal should be provided by 28 August 2020 at the latest in electronic form (PDF) FAO: Koen.Timmerman@Brugge.be

2.4.2 Implementation of the proposal after selection

The candidates will be notified of the results of the selection by 30 September 2020 at the latest. This communication will solely announce whether or not the candidate's proposal was selected. No information will be shared on the identity of the other candidates or the content of their proposals.

The City of Bruges will conduct extensive public communication around the selection and the commissioning of the DC charging stations. This communication will take place in consultation with the selected candidates. Information will be included on the City of Bruges website about this pilot project and media attention will be requested for its implementation.

2.5 MORE INFORMATION

Any additional information or answers to questions on content can be obtained from:

About the procedure: Koen.Timmerman@Brugge.be
About the content and technical criteria: frank@calixinfrastructure.eu