

Mobile Application to show the location and availability of Electric Vehicle (EV) chargers at Sembcorp facilities in mainland Singapore & Jurong Island, with online payment capability

Challenge Owner	Sembcorp Industries
Opening date for proposal submission	12 November 2019
Closing date for proposal submission	14 February 2020, 12 pm (UTC+8)
	Proposals and all accompanying attachments must be submitted through the Sustainability Open Innovation Challenge portal.

BACKGROUND

Sembcorp currently has fewer than 5 EV chargers deployed in Singapore and envisages expanding this network around Singapore. An integrated mobile Application is sought where Users can, at minimum: i) check the location & availability of the chargers, ii) navigate to the location to charge the EV, and iii) make payment (via banking account or credit card). The App should also allow other small-scale EV owners in Singapore to access and tap on the platform. Other advanced functions may include:

- Pop-up notification when Users pass by EV chargers within the network
- Showing amenities in the area (e.g. restroom, café, grocery market, etc.)
- Easy-to-use options to activate charging and payment (e.g. car plate number recognition, Near Field Communication, etc.)

DESIRED OUTCOMES

The desired outcome of the App is to :

- 1) Enhance the utilisation of Sembcorp’s EV charging points; and
- 2) Allow open access to other small-scale EV charging owners to use and generate revenue.

Applicants can propose other ideas and features that will contribute to the above outcomes.

TECHNICAL SPECIFICATIONS AND REQUIREMENTS

- End use environment is a full-scale commercial application where EV car owner can use this App to access Sembcorp’s and other supplier’s EV chargers to charge their vehicles islandwide.
- Solution should be capable of integrating with both AC/DC 43kV and 50kV chargers to indicate location and availability.
- App should be easily downloadable via iOS & Android, and perform the functionalities mentioned.
- Product functionality and user experience are paramount. Proposals should include information on any proof-of-concept (POC)/minimum viable product (MVP) that is non-sensitive.

- Applicant should indicate estimated commercial price of solution, cost of operation/maintenance and cost-benefit analysis of the solution in the proposal

Besides addressing the above requirements, the proposed solution should also fulfil the following criteria:

- Not be readily or commercially available in the market.
- Wherever applicable, aim to:
 - Enhance safety of operations; and/or
 - Reduce reliance of manpower; and/or
 - Improve quality, consistency and service delivery; and/or
 - Achieve cost-effectiveness; and/or
 - Improve efficiency/productivity.

BUSINESS OPPORTUNITY

Sembcorp is open to buying over the entire App from the developer. Alternatively, a leasing model is also possible. The applicant may wish to propose a commercialisation strategy, for further discussion with Sembcorp.

DEVELOPMENT TIMELINE

A completed prototype is expected in 6-12months. A fully operational App that integrates seamlessly with the charging station should be completed within 2 years.

THE RULES AND REGULATIONS ON THE CHALLENGE WEBSITE APPLIES, WITH ADDITIONAL INFORMATION BELOW.

FUNDING SUPPORT

Enterprise Singapore may support shortlisted local SMEs/startups with funding of up to 70% of the qualifying project cost, capped at \$250,000.

Foreign solution providers are encouraged to work with local SMEs/startups for solution development.

ADDITIONAL RESOURCES

Sembcorp will allow access to their EV chargers for the development. Concurrently, there are plans to add more chargers around Singapore, which may be added to the App in the prototype and full development stages. Sembcorp's in-house Digital and Technology team may provide support to the App development.

EVALUATION CRITERIA

Proposals will be evaluated against the following criteria:

- Technical feasibility of solution [30%]:
 - Effectiveness in addressing the challenge statement
 - Operational feasibility for deployment with EV charger network, which may require modification or additional functionalities to be installed
 - Minimal/ no nuisance and disruption to existing operation
 - Minimal alterations to existing infrastructure
- Economic feasibility of solution [30%]:
 - Commercialisation strategy
 - Estimated commercial price/leasing price
 - Estimated operating, life cycle costs and return on investment upon deployment
- Capacity and expertise to execute project [25%]:
 - Requisite capabilities and committed resources to undertake solution development
- Clarity of proposal and accompanying information on POC/MVP [15%]

TECHNICAL BRIEFING

A technical briefing will be held to provide interested applicants with more information. The details for the briefing are as follows:

Date :	18 Nov 2019 (<i>Monday</i>)
Time:	9am to 12 pm
Location:	230 Victoria Street, Bugis Junction Office Tower, Level 10, Singapore 188024 - Room: Little Red Dot

Please register your interest [here](#) by 14 Nov 2019, 12pm.

PROPOSAL SUBMISSION

Submit your proposal using the Application Form, together with all supporting documents, in the Sustainability Innovation Call portal.

CONTACT

For further enquiries, please email:

- tan.phaykiat@sembcorp.com – for matters pertaining to the challenge statement
- Sustainability_Challenge@enterprisesg.gov.sg – for assistance on:
 - *Using the Sustainability Open Innovation portal for registration, submission of proposal, etc.*
 - *Funding enquiry*