

Introduction:

Agency/Team is responsible for overall web portal & application architecture and development including concept, design, testing, installation & online training. It is envisioned that the proposed solution would be highly effective due to the inherent cut down in reporting time and better quality of reports. The data will be fetched from the predefined format in a central database and all the data should be directly updated to the central database.

Web Portal

The objective of Web Portal

- Detailed information i.e., charging stations data with no. of guns, types of chargers, availability of chargers with energy consumption, no. of vehicles being charged, EV tariff, ownership of charging station, its GPS coordinates.
- The web portal will have limited access only through a user ID and password
- There will be 3 types of users - Admin, Web Portal Users & Website User (open to all).
- Provision should be available to Admin / Super User to add or delete columns in the multiple prescribed formats.
- The portal must have two-way capabilities for information validation. If superuser updates information on website/portal, it must reflect each web portal user's home page along with mail notification to web portal users.

Functional Requirements of Web Portal

- The homepage should be attractive and well-constructed so that it makes a good first impression to all the visitors.
- Tag line should increase the user's understanding of the site.
- The homepage should clearly communicate the site's purpose and show all major options available on the Website
- Much of the homepage should be visible "above the fold" and should contain a limited amount of prose text
- Easy access to the homepage should be provided from every page in the site.
- Key topic areas should be presented in order of importance and should be easy to scan

- Up-to-date news stories should be focused on the homepage. News shall be displayed on the homepage or in another tab. News shall be updated by EVDT or its appointed bidder as per the direction of EVDT.
- Provision should be provided to CPOs to upload documents necessary for verification purposes. The documents can be in agreement with Land Owning Agency, electricity connection from DISCOMs, etc. and the document type will be either PDF/word/image with a file size not more than 5 MB / document. However, the documents size limit can be customized at the time of development.

Feature of Web Portal

- The content uploaded on the website/portal & application would be completely isolated and would have restricted access. Only superusers can add/edit/update the content
- A feedback management system shall facilitate the collection of feedback from visitors to the site in the predefined form
- Provision of exporting detailed sheet, pdf, image, HTML, web page to mail
- Provide graphs/illustrations of selected parameters like EV Charging tariff., visualize reports through a variety of graphs like column charts, bar charts, line charts, pie charts, area charts, scatter etc. instead of fixed graph formats. These reports will be downloadable reports i.e., word/pdf/excel etc.
- Downloadable data sheet from website/portal Full Text Searching Database should be designed to permit secure logins to update the mobile application database as and when required. Data on web portal and mobile application shall be managed by the bidder as per the direction of Super Admin.
- Database and web server should be Load balanced to handle multiple users in parallel The selected agency should provide proof of ownership (licenses) of various software used by them for the development as well as for the hosting of mobile application.
- The bidder will bear the cost for license software.
- Admin User will be able to see the list of login/logout information for the user through authentication report screen
- Please note the above features are not exhaustive in nature and the bidder to finalize the detailed requirements during requirement finalization phase.
- Web portal should incorporate features to facilitate and capture charging related vehicle to grid (V2G) data like Energy Consumption in kWh, Capacity of Battery

in kWh, SOC of Battery, Type of connector, charging duration, capacity utilization etc. exchange in real-time and maintain database on the server.

Mobile Application

Objectives of Dynamic Mobile Application

- Mobile application must be synchronized with web portal
- The proposed mobile application intends to provide detailed information to EV users, about public EV charging stations installed across India including location, type of chargers available, Tariff for charging etc.
- Application should help EV users in finding the nearest EV charging station along with navigation features. GIS service of Google/Map my India etc. will be used for navigation & bidder shall bear the cost for this.
- Application should be able to store the technical and general information of user like (type of charger used based on user input or real time mapping, location of charging stations, energy consumption by the user, duration of charging of batteries which should help application to suggest the right set of charging stations to the user. Application should support multiple number of users simultaneously at a given point in time and have multi features to authenticate, capabilities to retrieve, change passwords via email id, mobile no through OTP etc
- Users can book/Cancel a slot for EV charging through this mobile application based on availability & type of charger and the application should be able to redirect the user to appropriate payment gateways for making payments. There will be no provision of queue position numbering
- The duration of slot booking for charging will be set by the CPOs.
- Application should be capable of ensuring safety of user data at all times.
- The mobile application is to be linked with multiple payment gateways - UPI, Wallets, Credit / Debit Cards, etc also.

Functional Requirements of Web Portal

- Easy to use and navigate
- All the design/creatives/images to be provided by the selected agencies
- The application should support multi-lingual interface - Hindi & English initially and rest as per requirement.
- The mobile apps need to alert the user to download the latest version, which ever available.
- Protecting against Denial-of-Service (DoS) attack targeting application like locking of the application
- Secure mechanism of changing the password in lost/forgotten scenario
- The mobile applications should work in all networks irrespective of mobile device make and model
- All functions must stay within the mobile platform boundaries
- All data must be easily viewable on different Mobile platform matrix given above
- Free downloads from Google Play Store & iTunes Store. The Play Store accounts will be provided by EVDT.

Feature of Mobile Application

- Suggestion on the nearby charging location, charging slot booking options etc. Mobile application should have capabilities to provide the details of the charging stations like current slots available, rate, type, distance etc.
- GPS navigation option to the nearest charging location Charging/Consumption history details in graphical view/ tabular form Average daily/monthly/yearly charging details Energy saving suggestions via comparing charging rates nearby vs historical
- The application shall display simple messages, such as:
 - ▶ Greetings
 - ▶ Special information (e.g.: any promotion/offers)
- The mobile application shall have self-help information, FAQs, and support center details Setup & User Accounts Management:
- The Application shall provide the ability to create and update user passwords, update user email accounts and to send notifications related to the recovery of password procedure through predefined user preferences (email, web, SMS / text)
- The Application user account setup/maintenance operation shall provide the ability for two-step verification (an acceptable two-step verification would be the

email/web portal or SMS/web portal validation), for any login detected from a different web device

- The application shall require encryption using latest security methods.
- The bidder will bear this cost for such security methods.
- Please note the above features are not exhaustive in nature and the bidder to finalize the detailed requirements during requirement finalization phase.
- Bidder to create the APIs and integration of provided APIs.
- Bidders to provide the methodology for capturing the data from charging stations.

Note:

Technical maintenance support Minimum support period along with hosting is two (2) years after acceptance of all deliverables Selected agency should provide support 24*7

Training

For the effective uses of the supplied software/application licenses & their functionalities, the selected bidder must compulsorily provide online training. Handover a training video for future reference also. Following training needs are to be provided by the bidder as part of the scope:

- Content Management Training
- Deployment & Hosting Training
- Application Submission Training
- Support Handover

Project timeline:

Total duration of the project is three (3) months and thereafter two (2) years of technical maintenance support post Go-Live.