

## Q&A for NEW SM-E-2023-2 'EV Charger Interoperability'

1. Is there a CRC template available to use to generate the monthly/final reports?  
CRC does not have a standard template for monthly and final reports, but does use a standardized cover sheet. To see examples of published CRC reports, visit [crcao.org](http://crcao.org).
2. Is there a limitation for the locations that can be used for this project?  
No, but location selection will be subject to approval by the CRC project panel. It is assumed that a moderate-to-substantial population of privately-operated EVs will be in use within these locations.
3. Can multiple EVSE used in one location? (testing different EVSE in the same location)  
Yes. However, note that finding multiple EVSEs available for testing at a single location might necessitate testing very late at night or very early in the morning.
4. Will CRC provide documentation/mandate to visit different EVSE? How about a documentation/mandate to ask the questions to OEMs?  
It is assumed that the testing will be relatively discreet and will cause minimal disruption to normal EVSE station operation. If that is the case, no special permission or documentation should be required. Regarding the OEM interviews, the CRC can help facilitate that activity.
5. Does CRC have any preference, ideas or preliminary plans for the 300 locations or that will be totally up to us?  
No, but as previously stated, location selection will be subject to approval by the CRC project panel. California leads the nation in terms of charging locations and ports, and the weather is generally favorable. Therefore, it is assumed that locations within CA will be considered.
6. What is the expected timeline for this project? What is the desired start date and a rough duration?  
Start date and duration / timeline should be determined by the bidder in the proposal and based on the length of time the bidder deems necessary for the technical scope of work.
7. Are these EVSE open to public? Or should we plan to test private ones as well?  
No need to test private stations. Note that some public stations might require a parking fee in addition to any charging costs.
8. Apart from what is described in the bid, what are the additional plan for the outcome of the project?  
As with all CRC projects, the final report will be posted on the CRC's public website, where anyone can view the report at no charge. Note that the CRC does not engage in advocacy activity.

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9. Is there an anticipated or preferred budget range for the project?

There is no established ceiling award amount for this project. During the selection process, CRC members will evaluate proposals by balancing the available funding against the project's value relative to other priorities. Proposers are welcome to submit a primary proposal for their desired scope of work, as well as a more limited scope (with a reduced budget) if they believe that flexibility would assist in the selection process.

10. Is the 10-page limit for the technical proposal inclusive of a cover page and appendices, such as team bios and case studies?

No, the limit is for the technical scope of work.

11. Are there recommended or restricted testing windows to minimize customer disruption?

No, but a common-sense approach is recommended. For example, testing at a particular station should be postponed if EV drivers have formed a queue.

12. Is prior approval or coordination required with charging network operators, site hosts, or OEMs before testing public chargers?

See response to Question 4. Assuming the testing will be nonintrusive, no approval from charging networks or EVSE OEMs should be required. In fact, such prior communication could bias the results, e.g., the charging network could repair a malfunctioning charger before the testing takes place. Regarding site hosts, the use of best judgement is recommended. In most cases, the testing will presumably be transparent to the site host. In cases where the location is strictly monitored, permission might be required. Examples of the latter include traditional (gasoline/diesel) service stations, and patrolled parking areas such as amusement parks.

13. If a bidder elects to submit a proposal for only Step 3, does this imply that CRC or another party will determine and provide a) testing parameters and b) specifications/model numbers of required testing equipment?

Yes. The contractor responsible for Steps 1 and 2 will work closely with the Step 3 contractor.

14. With respect to the Accessibility observations, should the assessment be conducted from the perspective of a typical EV driver experience, or is a more comprehensive accessibility evaluation expected (e.g., ADA compliance verification, operable part height measurements, path-of-travel analysis, etc.)?

The EV driver experience. For the purpose of the SOW, "accessibility" applies simply to whether the driver can easily plug in the EV. One example: Lack of communication between the site host and EVSE installer can result in bollards or other obstructions being placed such that the charging cable cannot reach the

charging port on some vehicle models. (Hence the SOW request to note the usable length of the cable.)

15. Given that DC fast charging stations are more technically complex and have historically presented greater customer experience challenges, is the proposed 1/3 DC and 2/3 Level 2 allocation flexible, or is this distribution a firm requirement?

This is highly flexible. It is recognized that DCFC stations are typically more problematic, but there was a concern that DCFC stations are less prevalent than Level 2 EVSEs. For example, they represent about 10% of the total nonresidential charging ports in CA. The CRC project panel would welcome suggestions for alternative testing scenarios. If multiple scenarios are proposed, the cost for each should be noted in the cost proposal document. (Examples of alternative scenarios: A different proportion of Level 2 to DC chargers, or testing of less or more than the target of 300 connectors.)

16. In addition to the 300-connector target, are there specific targets or expectations regarding the number of charging sites, charger brands, or charging networks to be included in the study?

See response to Question 16 above. Testing multiple ports per site is acceptable, with the caveat noted in the response to Question 3. Regarding EVSE brands and charging networks, an effort should be made to test a representative number of combinations. That is, a rough reflection of the proportions in the region being tested. Note that the CRC project panel will edit the final report such that all references to specific EVSE OEMs, charging networks, and test sites will be “blinded.” That is, they will be replaced with alphanumeric designations. This is the CRC’s standard practice before posting the report.

17. When does CRC anticipate concluding the bidder selection process for this study?

CRC follows a Committee review and approval process that is dependent on variable factors; there is no set review period, but potential bidders are welcome to reach out for an update.

18. The RFP states that secondary activities should be performed whenever conditions permit. Can CRC define minimum expectations for secondary activities data collection (for example, “at least X percent of sites”)?

Given that the secondary activities basically consist of walking around a site and making quick visual observations, this activity should always be performed if it can be done safely and without disturbing other drivers. The app check only needs to be performed once per location, unless multiple EVSE brands are in use.

19. Is the intent to collect all primary activity items at all 300 connections, or is it acceptable to have partial data fields when conditions do not permit?

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Partial data fields are acceptable. However, reoccurring instances of instrument-related data loss should be reported to the CRC project panel.

20. How does CRC define a “successful charging session”? Is successful initiation sufficient, or does power need to be sustained for a minimum duration or energy threshold?

Once charging has initiated and all data are acquired, the test can be considered complete and successful. It is assumed that this will take at least a few minutes. Given that DC Fast Chargers have a ramp-up period, measurement of maximum delivered power should be taken at the end of this period, but before the eventual power attenuation period.

21. If an initial charging attempt fails, how many retry attempts (if any) are expected before categorizing a connector as unsuccessful or inoperative?

Two retries should be attempted, using exactly the same procedure, unless a safety concern exists. If a different initiation procedure is attempted after three unsuccessful attempts, this should be recorded as a “fresh” initial attempt.

22. Should different activation methods (app, RFID, credit card) each be attempted before determining failure?

Yes, when available. As per the response to Question 22 above, three attempts should be made with each activation method (assuming successful activation had not occurred with any previous tries). That is, once successful activation has been achieved, there is no need to try other methods.

23. For a defined geographic area, is the bidder expected to assess a specific percentage (or the entirety) of networks operating within that area? Additionally, should the bidder test all available activation methods for each network—such as RFID, network mobile applications, Plug and Charge, credit card readers, and any other supported access mechanisms?

See responses to Questions 17 and 23.