

**RULE 2202 EMISSION REDUCTION QUANTIFICATION PROTOCOL FOR
ELECTRIC VEHICLE CHARGING STATION PROJECTS**

(a) Purpose

The purpose of this Protocol is to establish procedures for evaluating, approving, and monitoring eligible electric vehicle charging station projects submitted under the Rule 2202 Air Quality Investment Program (AQIP) solicitation or pursuant to Rule 2202(f)(6).

(b) Applicability

This Protocol applies to persons who voluntarily elect to generate Rule 2202 credits or submit proposals under the Rule 2202 AQIP through the deployment of electric vehicle charging stations at any parking lot or structure located within the jurisdiction of the South Coast Air Quality Management District (SCAQMD) where the charging stations are accessible to the general public or at private parking lots and structures designated for employee parking only.

(c) Definitions

- (1) AVERAGE VEHICLE RIDERSHIP (AVR) means the current number of employees scheduled to report to work during the window for calculating AVR divided by the number of vehicles arriving at the worksite during the same window.
- (2) CONTRACTOR means a person or entity who has an executed contract under a Rule 2202 Air Quality Investment Program (AQIP) solicitation to implement an Electric Vehicle Charging Station Project per the provisions of this Protocol. Contractor also includes a person or entity who contracts with the approved Rule 2202(f)(6) Applicant to implement the Project.
- (3) ELECTRIC VEHICLE CHARGING STATION (EVCS) means a device or station that provides power to charge the batteries of a dedicated battery-electric vehicle (BEV) or a plug-in hybrid electric vehicle (PHEV). These chargers are classified according to output voltage and the rate at which they can charge a battery. Level 1 charging can be done through most wall outlets at 120 volts and 15 amps AC. Level 2 charging is done at less than or equal to 240 volts and 60 amps AC, with a power output of less than or equal to 14.4 kW. Level 3 charging can be done with power output of greater than 14.4 kW.

- (4) EMISSION REDUCTION TARGET (ERT) means the annual VOC, NO_x, and CO emissions required to be reduced based on the number of employees per worksite and the employee emission reduction factor, determined in accordance with the provisions of subdivision (e) of Rule 2202.
 - (5) EMPLOYER means any person(s), firm, business, educational institution, non-profit agency or corporation, government agency, or other entity that employs 250 or more employees. Several subsidiaries or units that occupy the same work site and report to one common governing board or governing entity or that function as one corporate unit are considered to be one employer.
 - (6) REPORTING PERIOD means every six months, but no longer than 12 months. The reporting period may be different based on the Rule 2202 AQIP contract or the SCAQMD approved Rule 2202(f)(6) application, but may not exceed 12 months.
 - (7) RULE 2202(f)(6) APPLICANT means any entity who submits a Rule 2202(f)(6) application to implement an electric vehicle charging station project that meets the provisions of this Protocol.
 - (8) RULE 2202 CREDIT means the emissions reductions associated with the amount of electricity consumption used to charge a ZEV as calculated by the emissions reduction quantification equation provided in this protocol, and is generated under a Rule 2202(f)(6) application and issued by the SCAQMD for the purposes of complying with Rule 2202.
 - (9) WORKSITE means a structure, building, portion of a building, or grouping of buildings that are in actual physical contact or are separated solely by a private or public roadway or other private or public right-of-way, and that are occupied by the same employer. Employers may opt to treat more than one structure, building or grouping of buildings as a single worksite, even if they do not have the above characteristics, if they are located within a 2-mile radius and are in the same Performance Zone as defined in Rule 2202.
 - (10) ZERO-EMISSION VEHICLE (ZEV) means, for the purposes of this Protocol, any vehicle that has an electric range powered by batteries and requires the use of an electric vehicle charging station to replenish the batteries. Examples include battery-electric vehicles (BEV) and plug-in hybrid electric vehicles (PHEV).
- (d) Eligible Projects
- (1) Eligible projects include the installation of new electric vehicle charging stations installed on or after January 14, 2014 at any parking lot or structure located within the jurisdiction of the SCAQMD where the charging stations are accessible to the

general public or at private parking lots and structures designated for employee parking only.

(2) Notwithstanding subparagraph (e)(1), the following types of EVCS installations shall not be eligible to generate Rule 2202 credits:

(A) Electric vehicle charging stations that have received full funding from California Energy Commission, California Air Resources Board, or SCAQMD including the Mobile Source Emissions Reduction Review Committee (MSRC).

(B) For electric vehicle charging stations that have received partial funding from any of the entities listed in subparagraph (d)(2)(A), the prorated portion based on the amount of funding received as a percentage of the total charging station project cost and as provided in the Emission Reduction equation pursuant to subparagraph (f)(2).

(C) Parking lots or structures that are owned by or have an arrangement with a Rule 2202 employer to provide parking to its employees, and the Rule 2202 employer accounts for zero emission vehicles as part of its AVR Adjustment in the Rule 2202 compliance reporting under Appendix A (Average Vehicle Ridership Survey Form and Instructions).

(e) Credit Generator Requirements

Any person who elects to generate Rule 2202 credits under this Protocol shall submit a Rule 2202(f)(6) application pursuant to Section II.F of the Rule 2202 On-Road Motor Vehicle Mitigation Option Implementation Guidelines.

(1) A Rule 2202(f)(6) application must be submitted within 90 days,

(A) From the date of installation of new charging stations installed after May 1, 2015; or

(B) From May 1, 2015 for electric vehicle charging stations installed on or after January 14, 2014 and prior to May 1, 2015.

(2) The Rule 2202(f)(6) application shall describe how any of the above-qualified electric vehicle charging stations will be monitored separately from any existing unqualified charging stations.

(f) Emission Reduction Quantification

(1) Emission reductions generated shall be based on actual electricity consumption at the electric vehicle charging station(s), which shall be located within the jurisdiction of the South Coast Air Quality Management District shown in Attachment I of Rule 2202.

- (2) The emission reductions shall be quantified using the following equation.

$$\mathbf{Emissions\ Reduction} = \left[\frac{\mathbf{AL}}{\mathbf{FE}} \times \mathbf{EF} \times (\mathbf{1} - \mathbf{FD}) \right] \div (\mathbf{8320} \times \mathbf{DF})$$

Where:

Emissions Reduction = Emissions reduction of VOC, NO_x, or CO (lbs/yr).

AL = Activity Level is the total electricity usage from all EVCSs identified in the project used to charge zero-emission vehicles (kilowatt-hrs – kWh) during the reporting period

FE = Average combined fuel economy of BEVs and PHEVs for the current and past model years based on BEV and PHEV models provided at the Department of Energy's website(kWh/mile). (Default = 0.34 for Model Years 2013/2014)

EF = Emission Factor for VOC, NO_x, or CO (lbs/yr/daily commute/vehicle) as provided in Table 5, Rule 2202 On-Road Motor Vehicle Mitigation Options – Emission Factor Methodology

FD = The ratio of the public funding to total funding of an electric vehicle charging station or a group of electric vehicle charging stations. (Default = 0.0 if no public funding incentives were received from the California Energy Commission, California Air Resources Board, or the SCAQMD including funding from the Mobile Source Air Pollution Reduction Review Committee (MSRC). Value is 1.0, if the electric vehicle charging stations were funded entirely by the California Energy Commission, California Air Resources Board, or the SCAQMD including funding from the MSRC.)

8320 = Conversion factor for **EF** from lbs/year to lbs/mile

DF = Discount Factor for the VOC, NO_x, or CO (lbs/mile) (Default = 1.20)

- (3) The emission reductions can only be generated during the project life specified in the Rule 2202 AQIP contract or the project life specified in the Rule 2202(f)(6) application approved by the SCAQMD.
 - (4) Any additional emission reductions that are achieved by the project beyond the term of the contract or application approval may be used by the SCAQMD to further incentivize the deployment of zero-emission vehicles.
- (g) Credit Generation, Issuance, Use, and Project Life
- (1) Rule 2202 credits:
 - (A) Shall be generated by an entity, including a Rule 2202 employer, that has a SCAQMD-approved Rule 2202 (f)(6) application to implement an EVCS project;
 - (B) Shall have a useful credit life of one year from the date of issuance of the Rule 2202 credit;
 - (C) Shall only be applied towards compliance as allowed under Rule 2202;
 - (D) May only be used, traded, or sold within the useful credit life for Rule 2202 purposes; and
 - (E) Shall not be transferable for compliance with any other local, state, or federal rules or regulations unless explicitly allowed under such regulations, in which case they may not be used for Rule 2202 compliance.
 - (2) All projects shall be inspected by SCAQMD prior to and following project implementation. Contractor or Rule 2202(f)(6) Applicant shall guarantee SCAQMD access to the site where EVCSs are installed for auditing and/or inspection purposes.
 - (3) Rule 2202 credits will not be issued or emission reductions generated for AQIP purposes will not be approved by the SCAQMD until a post-inspection of the project has been completed by the SCAQMD to verify that the project was implemented as approved. This provision shall be included in the contracts and/or agreements between Contractor or Rule 2202(f)(6) Applicant and all other parties involved in this project.
 - (4) If a Rule 2202 employer obtains Rule 2202 credits under this Protocol through a purchase or trade for such credits, the Rule 2202 employer is not eligible to credit zero emission vehicles as part of their AVR Adjustment in the Rule 2202 compliance reporting under Appendix A (Average Vehicle Ridership Survey Form and Instructions) for the useful life of the Rule 2202 credits.

- (5) If an EVCS project is approved by the SCAQMD under a Rule 2202(f)(6) application or Rule 2202 AQIP contract and the project is located at a Rule 2202 worksite, the Rule 2202 employer is not eligible to switch to crediting zero emission vehicles as part of their AVR Adjustment in the Rule 2202 compliance reporting under Appendix A (Average Vehicle Ridership Survey Form and Instructions) for the duration of the project life specified in the applicable Rule 2202(f)(6) application or Rule 2202 AQIP contract.
 - (6) The project life shall be shortened by the District to that period ending on the day upon which the emission reductions associated with the project cannot be used for Rule 2202 compliance or the project is found to be inconsistent with any federal, state or local regulation, or SCAQMD approved guidelines.
- (h) **Monitoring, Recordkeeping, and Reporting**
- (1) **Monitoring**
 - (A) Each electric vehicle charging station or each group of electric vehicle charging stations under the project shall monitor the electricity consumed during vehicle charging and the electricity consumed shall be recorded in logs as required under the Recordkeeping Section of this Protocol.
 - (i) The Contractor or Rule 2202(f)(6) Applicant shall provide documentation as part of the AQIP solicitation (for Rule 2202 AQIP Contractor) or in the Rule 2202(f)(6) application (for Rule 2202(f)(6) Applicant or its Contractor) as to how electricity consumption shall be monitored or that the charging station has a usage meter installed and the usage information is recorded and reported to a central location.
 - (ii) If a meter cannot be installed on an electric vehicle charging station or on a group of electric vehicle charging stations, the Rule 2202(f)(6) Applicant or Contractor may use an alternative form of reporting electricity usage if the Rule 2202(f)(6) Applicant or Rule 2202 AQIP Contractor, at the time of the Rule 2202(f)(6) application submittal or AQIP contract execution, demonstrates to the satisfaction of the Executive Officer that the alternative form of reporting is equivalent to having a meter or meters installed.
 - (B) Should the usage meter require repair and/or replacement, a maintenance record shall be prepared and submitted to the SCAQMD with the activity level data report as provided in the Reporting Section below. The maintenance record shall include: the date of the repair and/or

replacement, type of repair and/or replacement, meter reading at time of repair and/or replacement, and date of completion with the new meter reading.

- (C) Emission reductions will be verified and credits will be issued only for electric vehicle charging stations identified in the Rule 2202(f)(6) application. If additional electric vehicle charging stations are added to the previously approved and identified group of electric vehicle charging stations, then a new Rule 2202(f)(6) application shall be submitted for the new electric vehicle charging stations within 90 days from the installation of the new charging stations.

(2) Recordkeeping

- (A) Contractor or Rule 2202(f)(6) Applicant shall ensure that the following records are maintained:

- (i) A log of total electricity consumption(the reporting period for the logged data shall be provided as part of the Rule 2202 AQIP Contract or Rule 2202(f)(6) application);
- (ii) Records of electricity charges paid to an electric utility or utilities (if appropriate), or equivalent documentation as described in the Rule 2202 AQIP Contract or Rule 2202(f)(6) application;
- (iii) Rule 2202 credits claimed, and the calculations demonstrating how the emission reductions were determined, and any data not already included in the proposal/application that is used to calculate the emission reductions;
- (iv) Records of any maintenance or repairs performed; and
- (v) The data shall be recorded on a non-rewritable, non-volatile storage media, such as a CD or any other storage media such that the data can be readily accessed at the request of the District pursuant to subparagraph (i)(1). The original copy shall be maintained for at least three years after submittal of data for Rule 2202 credit evaluation.

- (B) Records shall be maintained by the project proponent during the project life and for three (3) years after the termination of the project or contract.

(3) Reporting

- (A) Contractors or Rule 2202(f)(6) Applicants shall submit progress reports to the SCAQMD every three months following contract execution or plan

approval until project implementation, and then activity level data reports annually thereafter for the life of the project.

- (B) Applicants generating Rule 2202 credits pursuant to Rule 2202(f)(6) or Rule 2202 AQIP Contractors generating emission reductions under an AQIP contract may submit semi-annual activity level data and credit issuance requests in lieu of annual reporting if requested and approved by SCAQMD at the time of application approval or execution of an AQIP contract.
- (C) Each activity level data report shall be submitted within 60 days after the end of the reporting period.
- (D) If the report is not timely submitted, the SCAQMD will not approve the emission reductions for the reporting period.
- (E) A time extension not exceeding 30 days may be allowed to supplement the activity data report with new information that that was not available during the 60 day period.
- (F) The SCAQMD shall notify the Applicant within 30 calendar days of receipt of a Rule 2202 credit request and activity level data report as to whether or not the request contains sufficient information to be deemed complete.
- (G) Within 45 days of submittal of a complete request, SCAQMD will either approve or disapprove the issuance of Rule 2202 credits for the reporting period.
- (H) Each activity level data report shall, at a minimum, include:
 - (i) A brief description and location and number of electric vehicle charging station(s), only if this information has changed since the original application;
 - (ii) Number of kilowatt-hours consumed at the electric vehicle charging station(s) during the reporting period including all documentation and information necessary to verify the electricity consumption at the electric vehicle charging station(s);
 - (iii) Time period that the report covers;
 - (iv) Actual emission reductions, as calculated by the SCAQMD approved method in this Protocol;
 - (v) A brief description of any maintenance or repairs performed during the reporting period; and

- (vi) All assumptions, calculations, and factors used to determine the activity level and derive the actual emission reductions that are not already included in the proposal/application;
- (i) Auditing and Failure to Implement Rule 2202(f)(6) Application Provisions or AQIP Contract Provisions
 - (1) The records created pursuant to subparagraph (h)(2)(A) shall be made available to SCAQMD upon request for purposes of inspection and verification.
 - (2) If Contractor or Rule 2202(f)(6) Applicant or other parties involved in the project fail to adequately maintain records/logs pursuant to paragraph (h)(2), Rule 2202 credits, or emission reductions generated under an AQIP contract, will not be approved for any period in which the records/logs were not maintained.
 - (3) Failure to produce all requested records to the SCAQMD pursuant to subparagraph (g)(1) within 10 business days of the request may result in loss of Rule 2202 credits, or emission reductions for AQIP purposes, for the time period following the request up until the time that records are produced.
 - (A) Egregious or prolonged delays in submittal of requested records resulting in over 45 days from the date of request of request by the SCAQMD, may result in more severe penalties for violating Rule 2202, including rescinding of unused credits approved for a prior reporting period.
 - (4) Any person submitting a Rule 2202(f)(6) application or under an AQIP contract who falsifies information in the application or fails to implement any provision of the application, shall be subject to penalties specified in law, including, without limitations, those in the Health & Safety Code.
 - (A) The SCAQMD may also take one or more of the following actions:
 - (i) Rescind its approval of the application in whole or in part and void any unused, previously issued Rule 2202 credits or emission reductions for AQIP purposes in whole or in part, and report any falsification of information to the State for appropriate action if the credits are generated under a State program, and/or
 - (ii) Designate the Applicant or Contractor to be ineligible to generate Rule 2202 credits or emissions reductions pursuant to this program or any other District program.
- (j) Other Conditions

To the extent that conflicting provisions are contained in an approved District regulation, the provisions of the regulation, and not of these Guidelines, are controlling.