

**RULE 1633. PILOT CREDIT GENERATION PROGRAM FOR TRUCK/
TRAILER REFRIGERATION UNITS**

(a) Purpose

The purpose of this rule is to provide opportunities to generate NO_x mobile source emission reduction credits (MSERCs) for use in RECLAIM through the voluntary electrification of truck/trailer refrigeration units.

(b) Applicability

(1) This rule applies to persons who voluntarily elect to generate NO_x MSERCs, which may be used in RECLAIM pursuant to Rule 2008 – Mobile Source Credits, through the conversion or purchase of truck or trailer refrigeration units that are equipped with electric standby mode that uses electric power instead of a diesel-fueled auxiliary engine to operate the truck or trailer refrigeration unit at a distribution center.

(2) This rule does not apply to any:

(A) emission reductions produced by monies from any public air quality related funding program including but not limited to Rule 2202, the Carl Moyer Memorial Air Quality Standards Attainment Program, or AB2766 funding; or

(B) emission reductions required pursuant to any law, rule, or regulation, or legal instrument such as a legal settlement or consent decree.

(c) Definitions

(1) **ACTIVITY LEVEL (AL)** means for the purpose of this rule, the number of kilowatt-hours (kW-hr) used by each truck or trailer refrigeration unit while in electric standby mode per quarter for retrospective credit issuance and per year for prospective credit issuance.

(2) **APPLICATION** means for the purpose of this rule, the Rule 1633 MSERC Application as specified in subdivision (e).

(3) **AUXILIARY ENGINE** means an off-road engine less than 100 horsepower which is used to power a truck or trailer refrigeration unit.

- (4) BASELINE EMISSION FACTOR (EF_{base}) means for the purpose of this rule, the emission factor used to quantify annual emissions from a diesel-fueled engine used to supply power to a truck or trailer refrigeration unit.
- (5) CREDIT GENERATION PERIOD means for the purpose of this rule, the timeframe that MSERCs are being generated and begins on the date that the requirements of subdivision (d) are met. The first segment of the credit generation period, which may be 3 months or less, is referred to as the “initial credit generation period” and each 3-month segment thereafter that begins on a calendar quarter is referred to as the “quarterly credit generation period.” The “first two-year annual credit generation periods” is the first eight full quarterly credit generation periods.
- (6) CREDIT ISSUANCE PERIOD means the timeframe that MSERCs are issued and begins on the date that the requirements of subdivision (h) are met.
- (7) DIESEL FUEL means any fuel that is commonly known as diesel fuel No. 1-D or 2-D, or meets the specifications in ASTM D 975, Standard Specifications for Diesel Fuel Oils.
- (8) DISTRIBUTION CENTER means for the purpose of this rule, a warehouse or goods transportation facility where refrigerated trucks and trailers are loaded, unloaded, or transferred.
- (9) DISTRIBUTION CENTER OPERATOR means the operator of the distribution center that has the rights through direct ownership, or an agreement or contract to provide electric energy to operate truck or trailer refrigeration units during electric standby mode.
- (10) DISTRICT means the geographical area defined by Rule 103 – Definition of Geographical Area.
- (11) ELECTRIC STANDBY MODE means the operation of a truck and trailer refrigeration unit using an electric motor powered by electricity supplied by the distribution center.
- (12) EVALUATION YEAR means for the purpose of this rule, 2006 which represents the initial evaluation year and subsequent years thereafter as determined pursuant to paragraph (g)(3) during which the District, CARB, and EPA will assess whether MSERCs may continue to be generated or if a portion or all future MSERCs need to be discontinued or discounted to ensure credits remain surplus.

- (13) GLOBAL POSITIONING SYSTEM OR GPS means a satellite-based radionavigation receiver capable of providing the time, date, and position of a unit.
- (14) MOBILE SOURCE EMISSION REDUCTION CREDIT (MSERC) means for the purpose of this rule, emission reduction credits that meet the requirements of this rule and are issued as specified in paragraph (h)(2).
- (15) OPTIONAL EMISSION FACTOR (EF_{opt}) means for the purpose of this rule, the emission factor used to quantify annual emissions from the use of electric standby mode for a truck or trailer refrigeration unit and is based on an in-Basin power generation emission factor of 0.232 pounds per megawatt-hour.
- (16) PROSPECTIVE CREDIT ISSUANCE OR PROSPECTIVELY means that MSERCs will be issued annually prior to generating credits.
- (17) QUARTER OR QUARTERLY is any three-month period from January 1 to March 31, April 1 to June 30, July 1 to September 30, or October 1 to December 31, inclusive.
- (18) RECLAIM FACILITY means any stationary source subject to Regulation XX, pursuant to Rule 2001 – Applicability.
- (19) RETIRE OR RETIRED means that the credit, regardless of the expiration date of the credit, can no longer be transferred or used.
- (20) RETROSPECTIVE CREDIT ISSUANCE OR RETROSPECTIVELY means that MSERCs will be issued quarterly following submittal of the actual activity level specified in paragraph (i)(1) and the quarterly validation has been completed pursuant to subdivision (k).
- (21) SURPLUS means that emission reductions achieved throughout the duration of the emission reduction activity that are not required or relied upon by any local, state, or federal rule, or regulation, and the federal Clean Air Act; and are not required or relied upon in an attainment demonstration, reasonable further progress demonstration, or emissions inventory thereby ensuring that there is no double counting of emission reductions.

(22) TRUCK OR TRAILER REFRIGERATION UNIT means a refrigeration chiller powered by a diesel-fueled auxiliary engine or electric motor that is mounted on a truck body or a trailer container for the purpose of providing chilled air to the contents of the truck container or trailer. For purposes of this rule, truck or trailer refrigeration units use engines that are separate from the primary engine used for propulsion.

(d) Credit Generator Requirements

Any person that elects to generate MSERCs under this rule shall meet all of the following requirements:

- (1) Use of electric power in lieu of auxiliary engines to power a truck or trailer refrigeration unit which is used at a distribution center;
- (2) Demonstrate that the conversion or purchase of the truck or trailer refrigeration unit with electric standby mode was initiated no earlier than March 1, 2001;
- (3) Demonstrate that the infrastructure which includes a stationary ground power supply and transmission system necessary to provide electric power at the proper frequency and voltage at a distribution center for use by truck or trailer refrigeration units operating in electric standby mode is installed no earlier than March 1, 2001;
- (4) Demonstrate that the distribution center operator has the right through direct ownership or an agreement or contract to provide electric energy to operate a truck or trailer refrigeration unit during electric standby mode.
- (5) Demonstrate that each truck or trailer refrigeration unit is equipped with data recorders or another method as approved by the District, ARB, and EPA capable of recording the location, date, and time when the electric standby mode is used;
- (6) Demonstrate that the distribution center is equipped with a totalizing meter capable of measuring and recording the electric power measured in kilowatt hours (kW-hr) consumed for truck or trailer refrigeration units used during electric standby modes or another method as approved by the District, ARB, and EPA;

- (7) Demonstrate that each truck or trailer refrigeration unit is equipped with a GPS or another method as approved by the District, ARB and EPA that is capable of monitoring and recording truck or trailer refrigeration units located at the distribution center during periods when electric standby mode is used;
- (8) Demonstrate that the distribution center is located in the District;
- (9) Submit an Application as specified in subdivision (e); and
- (10) Demonstrate compliance with the monitoring, recordkeeping, and reporting requirements specified in subdivision (i).

(e) Application

- (1) Any person that elects to generate MSERCs under this rule shall submit an Application to the District no later than 30 days after the conversion or purchase of a truck or trailer refrigeration unit and before January 1, 2004. The Application shall include the following:
 - (A) A description of the distribution center, including at a minimum:
 - (i) location of the distribution center, including GPS coordinates;
 - (ii) a description of the products handled at the facility; and
 - (iii) facility plot plan including locations of all truck or trailer loading/unloading and staging areas identifying those which will be used to provide power for electric standby mode.
 - (B) Proof of purchase for each new truck or trailer refrigeration unit capable of operating in electric standby mode.
 - (C) The projected initial date that the distribution center operator will provide electric energy to converted or newly purchased truck or trailer refrigeration units that would represent the beginning of the credit generation period; and
 - (D) Identification of the intended user(s) of the MSERCs, if available.
- (2) If the initial conversion or purchase date of a truck or trailer refrigeration unit that is equipped with an electric standby mode, as specified in subparagraph (e)(1)(C), is before the Application is approved, the Application shall include the following additional information:

- (A) Proof of purchase and acquisition of each truck or trailer refrigeration unit that is equipped with an electric standby mode; and
- (B) Proof that the distribution center operator has an agreement or contract to provide electric energy to operate a truck or trailer refrigeration unit during electric standby mode.
- (3) The Application shall be deemed a plan, and plan fees shall be assessed in accordance with Rule 309 – Fees for Regulation XVI.
- (4) The Executive Officer shall approve or disapprove the Application and any subsequent revisions submitted to paragraph (e)(5), in writing within 90 days of submittal of a complete Application or Application revision.
- (5) Any person that submits an Application may amend the Application to:
 - (A) Revise information provided under subparagraphs (e)(1)(A) through (e)(1)(D) at any time;
 - (B) Include information required under subparagraphs (h)(4)(A) and (h)(4)(B) if the credit generator elects to have MSERCs issued prospectively; or
 - (C) Revise the activity levels specified in subparagraph (h)(4)(B) no later than 180 days after the beginning eligibility credit issuance date pursuant to subparagraph (h)(2)(C).
- (f) MSERC Quantification
 - (1) MSERCs shall be quantified using the following equation:

$$\text{MSERC} = \frac{(\text{EF}_{\text{base}} - \text{EF}_{\text{opt}}) \times \text{AL}}{454}$$

Where

MSERC = Mobile source emission reduction credit (pounds of NO_x)

EF_{base} = Baseline emission factor (g/kW-hr)

EF_{opt} = Optional emission factor (g/kW-hr)

AL = Activity level (kW-hr)

454 = Conversion factor from grams to pounds

- (2) The value of the NO_x baseline emission factor shall be based on 92 percent of NO_x + total hydrocarbon (THC) EPA certified emission level pursuant to 40 CFR Part 89.112 and Subparts D and E for each diesel-fueled engine or if no certification exists, the baseline emission factors shall be taken from Table 1 –NO_x Baseline and Optional Emission Factors based on the type of refrigeration unit.
 - (3) The value of the NO_x optional emission factors shall be taken from Table 1 based on type of refrigeration unit.
 - (4) The actual activity level used to quantify the MSERCs shall be determined pursuant to subdivision (i) and either the quarterly validation if credits are issued retrospectively or twelve-month reconciliation if credits are issued prospectively pursuant to subdivision (k).
- (g) Source Category Evaluation
- (1) On or before July 1, 2006, the Executive Officer with CARB and EPA shall complete an evaluation of truck and trailer refrigeration units and agree whether future MSERCs, need to be discontinued or discounted to ensure credits remain surplus.
 - (2) The evaluation shall include, but is not limited to, an assessment of current and future local, state, and federal rules and regulations affecting truck and trailer refrigeration units.
 - (3) After the initial evaluation year specified in Table 1, the evaluation performed in paragraph (g)(1) shall be completed on a timeframe as agreed to by the District, CARB, and EPA, but not more than once per year.
 - (4) Subsequent evaluations performed pursuant to paragraph (g)(3) shall be completed at least six months prior to end of each evaluation period specified in paragraph (g)(3), for the remainder of the pilot program.
 - (5) No future MSERCs shall be issued if the evaluation is not completed or the District, CARB and EPA do not agree on whether future MSERCs need to be discontinued or the amount that the MSERCs need to be discounted.

- (h) Credit Issuance
- (1) The Executive Officer shall issue MSERCs provided:
 - (A) the Application has been approved by the Executive Officer;
 - (B) the credit generator has submitted the information specified in subparagraphs (e)(2)(A) and (e)(2)(B);
 - (C) the credit generator has submitted records and reports pursuant to subdivision (i); and
 - (D) the Executive Officer has completed the quarterly validation of the activity level pursuant to subdivision (k) if the MSERCs are issued retrospectively pursuant to paragraph (h)(3).
 - (2) The Executive Officer shall issue MSERCs:
 - (A) to the distribution center operator that meets the applicability requirements pursuant to subdivision (b) and the requirements pursuant to subdivision (d);
 - (B) retrospectively through the first two-year annual credit generation periods pursuant to paragraph (h)(3);
 - (C) either retrospectively for subsequent quarters following the end of the first two-year annual credit generation periods pursuant to paragraph (h)(3) or prospectively for subsequent annual credit generation periods following the end of the first two-year annual credit generation periods pursuant to paragraph (h)(4); and
 - (D) designated with a beginning and ending date based on the date of credit issuance.
 - (3) The Executive Officer shall issue MSERCs retrospectively in quarterly increments, in pounds of NO_x:
 - (A) for each quarter through the end of the first two-year annual credit generation periods;
 - (B) for subsequent quarterly credit generation periods following the end of the first two-year annual credit generation periods if the credit generator elects to continue retrospective credit issuance and has not submitted a written request to the Executive Officer pursuant to subparagraph (h)(4)(A) to issue MSERCs prospectively;

- (C) for any quarterly generation period between the end of the first two-year annual credit generation periods and the next annual credit generation period that coincides with either the RECLAIM Compliance Cycle 1 or 2 as designated by the credit generator pursuant to paragraph (h)(7) if the credit generator elects to have MSERCs issued prospectively; and
 - (D) after the Executive Officer completes the quarterly validation pursuant to subdivision (k) and within 30 days after the submittal of the actual activity level pursuant to paragraph (i)(2).
- (4) The Executive Officer shall issue MSERCs prospectively in annual increments, in pounds of NO_x:
- (A) following the end of the first two-year annual credit generation periods and each annual credit generation period thereafter for a period not to exceed five years, provided the credit generator submits a written request to amend the Application for prospective credit issuance and designation of the RECLAIM Compliance Cycle for each annual credit generation period to the Executive Officer within 30 days after the end of the first two-year annual credit generation periods;
 - (B) in an amount based on an activity level as specified by the credit generator that is included in an amendment to their Application, that shall not exceed 120% of the annual average activity level that was reported and validated through the first two-year annual credit generation periods; and
 - (C) beginning on either a RECLAIM Cycle 1 or 2, as designated by the credit generator pursuant to subparagraph (h)(4)(A).
- (5) The Executive Officer shall discount MSERCs upon issuance by:
- (A) nine percent which will be retired for the benefit of the environment; and
 - (B) one percent which will either fund the Rule 518.2 – Federal Alternative Operating Conditions offset program, or if Rule 518.2 funding is not needed, be retired for the benefit of the environment.

- (6) Notwithstanding paragraph (h)(5), MSERCs generated from the use of electric standby mode for truck refrigeration units shall be further discounted by 30 percent prior to issuance.
 - (7) Any reductions other than NO_x that result from implementation of projects subject to this rule shall be retired for the benefit of the environment and ineligible for transfer or use.
 - (8) Notwithstanding Rule 2008 – Mobile Source Credits, for MSERCs issued retrospectively pursuant to paragraph (h)(3), MSERCs converted to RTCs shall be issued for the RECLAIM Compliance Cycle 1 or 2 that the credit generator selects provided the initial or quarterly credit generation period and subsequent quarterly credit generation period coincide with the entire RECLAIM Compliance cycle plus the reconciliation period of that cycle.
 - (9) Notwithstanding Rule 2008 – Mobile Source Credits, for MSERCs issued prospectively pursuant to paragraph (h)(4), MSERCs converted to RTCs shall be issued for either RECLAIM Compliance Cycle 1 or 2 provided that each annual credit generation period coincides with the entire cycle selected. If the initial credit generation period begins prior to the start of a complete RECLAIM Compliance Cycle, that portion of MSERCs converted to RTCs shall be issued for the current or previous cycle provided that this initial credit generation period completely coincides with the cycle selected.
 - (10) Any MSERCs not used by the specified expiration date shall be retired to benefit the environment and be ineligible for transfer or use.
- (i) **Monitoring, Recordkeeping, and Reporting**
- (1) For each truck and trailer refrigeration unit that uses electric energy from the distribution center, credit generators shall monitor and maintain records for the initial and each subsequent quarterly credit generation periods of the following:
 - (A) Numbers of kilowatt-hours that each refrigeration unit consumes while in electric standby mode using a non-resettable automatic data recorder or another method as approved by the District, ARB, and EPA;
 - (B) Cargo carried and loading and unloading times while at the distribution center;

- (C) Date stamped record of truck container or trailer door openings using an automatic data recorder or another method as approved by the District, ARB, and EPA; and
 - (D) Truck and trailer refrigeration unit identification, identification of the existing diesel-fueled engine used to power the refrigeration unit, including engine manufacturer, engine model, engine model year, engine displacement, engine horsepower, EPA certified emission factor; identification of the electric motor used to power the refrigeration unit during electric standby mode, including motor manufacturer, model number, model year, horsepower, and power consumption rate.
- (2) Within 30 days after the end of the initial and each subsequent quarterly credit generation period if credits are issued retrospectively, and within 30 days after the end of each twelve-month credit generation period if credits are issued prospectively, the credit generator shall submit the activity level specified in paragraph (i)(1).
 - (3) Notwithstanding paragraph (i)(2), if the initial credit generation period begins prior to a quarter and is two months or less, the credit generator shall submit the information specified in paragraph (i)(1) within 30 days after the end of the first quarterly credit generation period. For an initial credit generation period that is greater than two months, the credit generator shall submit the information specified in paragraph (i)(1) within 30 days after the end of the initial credit generation period.
 - (4) The credit generator shall maintain all data required to be gathered, computed, or reported pursuant to this rule for three years after each quarterly report is submitted to the District.
- (j) **Credit Use**
MSERCs generated under this rule may be used as RTCs under the provisions of Regulation XX – Regional Clean Air Incentive Market (RECLAIM).

- (k) Quarterly Validation and Reconciliation
 - (1) For MSERCs issued retrospectively pursuant to paragraph (h)(4), the reported activity level submitted pursuant to paragraphs (i)(2) and (i)(3) shall be reviewed by the Executive Officer upon submittal to validate the activity level. If the review indicates that the activity level reported is not consistent with records submitted pursuant to paragraph (i)(1), the Executive Officer shall appropriately adjust the activity level reported.
 - (2) The Executive Officer shall validate the activity level reported based on the analysis specified under paragraphs (k)(1) within 30 days after the reported activity level is submitted pursuant to paragraphs (i)(2) and (i)(3) for MSERCs issued retrospectively.
 - (3) For MSERCs issued prospectively pursuant to paragraph (h)(5), the actual activity level submitted pursuant to paragraph (j)(4) shall be reviewed upon submittal to evaluate if any shortfall exists between the actual activity level and activity level specified by the credit generator pursuant to subparagraph (h)(4)(B).
 - (4) If a shortfall exists between the actual and projected activity levels, the credit generator and user are subject to the penalty provisions specified under subdivision (l).
 - (5) If the actual activity level exceeded the activity level specified by the credit generator pursuant to subparagraph (h)(4)(B), then the Executive Officer shall after performing the evaluation required by paragraph (k)(3) issue additional MSERCs equal to the amount of the increase and pursuant to subdivision (h) for use in the current RECLAIM Compliance Cycle that ends no later than six months from the last day of the credit generation period of which the increase in activity level occurred.
- (l) Penalties
 - (1) If a shortfall exists pursuant to paragraph (k)(3), credits equal to 110 percent of the shortfall shall be obtained and surrendered to the Executive Officer such that the applicant shall retire NO_x MSERCs generated under the same or different Application or RTCs that are approved and designated for use within the same RECLAIM cycle or if not available, from the next RECLAIM cycle.

- (2) Any person submitting an Application who falsifies information in the Application or fails to implement any provision of the Application, shall be subject to the penalties specified in the Health and Safety Code for violation of District rules and shall be grounds for the Executive Officer to take one or more of the following actions:
 - (A) disapprove the Application and void all previously issued MSERCs, and those already converted to RTCs, that have not yet expired;
 - (B) designate the applicant to be ineligible to generate MSERCs; or
 - (C) assess the penalty specified in paragraph (1)(1).
 - (3) Any person who uses MSERCs converted into RTCs generated under this rule at a RECLAIM facility where previously issued MSERCs, and those already converted to RTCs, that have not yet expired are voided, shall be subject to the provisions specified in Rule 2010 – Administrative Remedies and Sanctions for RECLAIM rule violations. If there are multiple credit holders or users of credits generated under the same Application, each holder or user shall retire MSERCs or RTCs according to their prorated share of credits purchased.
- (m) Program Review
- (1) On or before April 2003 and biannually thereafter, up until credits are discontinued according to the source category evaluation performed pursuant to subdivision (g), the Executive Officer shall complete a review and present a report to the Governing Board that includes but not be limited to the following information:
 - (A) General description of projects participating in the pilot program and the amount of NO_x MSERCs, including the amount converted to RTCs, generated under the pilot program;
 - (B) The location of the credit generation projects and facilities using RTCs under this pilot program;
 - (C) The amount of NO_x MSERCs retired to benefit the environment; and
 - (D) The amount of concurrent non-NO_x emission reductions such as PM and toxic air contaminants, generated under the pilot program that have been retired to benefit the environment.

- (2) The Governing Board may suspend approval of pending Applications and receipt of additional Applications through a noticed public hearing.

Table 1
NO_x Baseline and Optional Emission Factors

Refrigeration Unit Type	NO_x Baseline Emission Factor (g/kW-hr)	NO_x Optional Emission Factor (g/kW-hr)¹
Truck	4.0	0.1
Trailer	4.7	0.1

1. Based on an in-Basin NO_x emission factor of 0.232 pounds per megawatt-hour.