CALIFORNIA ENERGY COMMISSION

CALIFORNIA NATURAL RESOURCES AGENCY

MEMORANDUM

TO: Greenhouse Gas Reduction Fund Program

FROM: Wade Crowfoot, Secretary
California Natural Resources Agency

Drew Bohan, Executive Director
California Energy Commission

SUBJECT: Greenhouse Gas Reduction Fund, California Energy Commission
Expenditure Record for Fiscal Year 2023-2024
Industrial Grid Support and Decarbonization Program

DATE: November 8, 2023

This attestation memorandum documents that the California Natural Resources Agency and the California Energy Commission completed the attached expenditure record on November 8, 2023, for the Industrial Grid Support and Decarbonization Program. The record is consistent with the requirements of Government Code Section 16428.9 to support expenditures from the Greenhouse Gas Reduction Fund.

This attestation memorandum and expenditure record will be submitted to the California Air Resources Board for public posting on its website at www.arb.ca.gov/caclimateinvestments.

Questions may be directed to Ilia Krupenich at ilia.krupenich@energy.ca.gov or 916-968-8893.

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California Natural Resources Agency

Greenhouse Gas Reduction Fund: Expenditure Record

California Energy Commission
Industrial Decarbonization and Improvement of Grid Operations (INDIGO) Program
Industrial Grid Support and Decarbonization Program

Authorizing legislation:

Assembly Bill No. 209 (Chapter 251, Statutes of 2022) authorizes the California Energy Commission (CEC) to provide financial incentives for the implementation of eligible projects at eligible industrial facilities to provide significant benefits to the electrical grid, reduce emissions of greenhouse gases, achieve the state's clean energy goals and exceed compliance requirements. The bill created the Industrial Grid Support and Decarbonization Program. The CEC has named the program Industrial Decarbonization and Improvement of Grid Operations Program or INDIGO and this is the name used in this expenditure record.

Assembly Bill No. 103 (Chapter 33, Statutes of 2023) provides the following funding:

- $6.8M in item 3360-001-3228 for administrative costs
- $61.2M in item 3360-101-3228 for incentives for industrial decarbonization

The funds shall be available for encumbrance or expenditure by the CEC until June 30, 2025, and shall be available for liquidation until June 30, 2029.

Element (1) A description of each expenditure proposed to be made by the administering agency pursuant to the appropriation.

Agency that will administer funding:

- California Energy Commission

Amount of proposed expenditure and appropriation reference:

- The total expenditure is $68 million, per Items 3360-001-3228 and 3360-101-3228 of the Budget Act of 2023 (Ting, Chapter 33, Statutes of 2023).

Estimated amount of expenditures for administering agency administrative costs

- The total expenditure includes $6.8 million for administrative costs to support a program providing incentives for industrial decarbonization.

If applicable, identify laws or regulations that govern how funds will be used

- AB 1532 (Pérez, Chapter 807, Statutes of 2012), Senate Bill (SB) 535 (de León, Chapter 830, Statutes of 2012), SB 1018 (Budget and Fiscal Review Committee, Chapter 39, Statutes of

2012), SB 862 (Budget and Fiscal Review Committee, Chapter 36, Statutes of 2014), and AB 1550 (Gomez, Chapter 369, Statutes of 2016) provide the general framework for how the auction proceeds will be administered to further the purposes of AB 32.

- AB 398 (E. Garcia, Chapter 135, Statutes of 2017) prioritizes energy efficiency and renewable energy for expenditures from the Greenhouse Gas Reduction Fund.
- The Budget Act of 2020 provides direction on the types of projects that should be funded.
- AB 1261 (Burke, Chapter 714, Statutes of 2021) to identify overlap among incentive programs.
- AB 209 established the program and provides direction on how the funds will be allocated to recipients, including requirements for project eligibility and program implementation. All funds will be allocated and managed in accordance with this law.

Continuation of existing Expenditure Record

- This is a new Expenditure Record. The Expenditure Record elements include the following: amount of proposed expenditure and appropriation reference, intended recipient that will be eligible for funding, and percentage of total funding that will be expended for projects that benefit disadvantaged and low-income communities and low-income households, per CARB guidance.

Project Type(s)

- Energy efficiency, electrification/decarbonization, renewable energy, energy storage, and carbon dioxide capture and utilization, and demand flexibility. A portion of funds will be used to provide cost-share for California-based entities to leverage federal funding opportunities.

Describe the projects and/or measures that will be eligible for funding

- Energy efficiency, renewable energy technologies, electrification, energy storage, carbon dioxide capture and utilization, and other technologies that can reduce GHG emissions and/or reduce electrical load during net peak periods at industrial facilities. Projects that benefit an oil or gas production, processing or refining facility are ineligible.

Intended recipients

- Industrial facilities, energy management organizations, project aggregators, equipment developers and vendors.

Program structure and process for selecting projects for funding

- Competitive solicitation, evaluation, and selection of projects, including cost-share applications, according to criteria specified in the solicitation manual.

Element (2) A description of how a proposed expenditure will further the regulatory purposes of Division 25.5 (commencing with Section 38500) of the Health and Safety Code, including, but not limited to, the limit established under Part 3 (commencing with Section 38550) and other applicable requirements of law.

How the expenditure is consistent with the Investment Plan and the Scoping Plan

- AB 1532 (Chapter 807, Statutes of 2012) requires that monies from the Fund be appropriated in a manner that is consistent with the three-year Investment Plan. The "Cap and-Trade Auction Proceeds Fourth Investment Plan: Fiscal Years 2022-23 through 2024-25" recommends support for energy efficiency and renewable energy projects for residential, commercial, industrial, and public buildings. The Investment Plan specifically recommends prioritizing GGRF funding for innovative industrial emissions reduction projects.[1] Examples include energy efficiency, renewable energy, electrification, and other efforts to replace fossil fuels (e.g., incorporation of RNG or hydrogen from low-carbon sources for sectors that will be difficult to electrify) and prioritize projects that maximize local air pollution benefits. Therefore, the expenditures covered by this record are consistent with the Investment Plan and align with the priorities expressed in the Plan.
- California's 2022 Climate Change Scoping Plan identified key strategies and recommendations to continue reducing GHG emissions and achieve the goals and purposes of AB 32 and related statutes. The recommended actions for the industrial sector include displacing fossil fuel use with a mix of electrification, solar thermal heat, biomethane, low- or zero-carbon hydrogen, and other low-carbon fuels to provide energy for heat and reduce combustion emissions.[2] Emissions also can be reduced by implementing energy efficiency measures and using substitute raw materials that can reduce energy demand and some process emissions. Some remaining combustion emissions and some non-combustion CO2 emissions can be captured and sequestered. The expenditures covered by this record are consistent with the scoping plan.

Element (3) A description of how a proposed expenditure will contribute to achieving and maintaining greenhouse gas emission reductions pursuant to Division 25.5 (commencing with Section 38500) of the Health and Safety Code.

Describe how expenditures will facilitate the achievement of GHG emission reductions in the State

- Expenditures will reduce or avoid on-site consumption of fossil fuel-based energy or enable load shifting that benefit the electric grid with the goal of facilitating on-site and/ or grid GHG emission reductions by providing grants to support the development and implementation of high energy efficiency, electrification, renewable energy, load flexibility, and other zero carbon technologies.

[1] *Cap-and-Trade Auction Proceeds Fourth Investment Plan*, page 24

[2] *2022 Scoping Plan Update (ca.gov)*, pages 207 to 211

- Implementation of these technologies will lead to process improvements or alternatives that reduce electricity, natural gas and/or fossil fuel use, which will facilitate GHG emissions reduction and may reduce criteria air pollutants.
- Cost-share part of the program will leverage federal funding opportunities to implement above-mentioned technologies.

Explain when GHG emission reductions and/or co benefits are expected to occur and how they will be maintained

- The time required to begin yielding GHG emissions reductions will depend on when the specific projects are installed, but projects are to be completed by 2030.
- It is expected that these projects will maintain GHG emissions reductions for the life of the installed equipment, which could be up to 30 years.

Element (4) A description of how the administering agency considered the applicability and feasibility of other non-greenhouse gas reduction objectives of Division 25.5 (commencing with Section 38500) of the Health and Safety Code.

Expected co-benefits, particularly environmental, economic, public health and safety, and climate resiliency

- Adoption of energy efficiency, on-site renewable energy or other decarbonization technologies will reduce electricity and/or fossil fuel use. Reduction of electricity demand during the net peak periods would be beneficial to the grid and could enhance grid resiliency and reduce emissions from gas-fired peaker plants. Reduction of fossil fuel use would reduce criteria pollutants and improve local air quality. On-site reuse of wastewater could result in less demand for ground water pumping and reduce demand for water which could benefit local communities.
- California's industrial facilities face stiff out-of-state and international competition. Providing support for updating equipment, improving energy efficiency, and use of renewable energy technologies will reduce operating costs and reduce or avoid on-site fossil fuel use and associated emissions. This could help ensure competitiveness of California's industrial sector, its stable operations, and secure jobs associated with industrial operations in California.

How the project will support other objectives of AB 32 and related statutes

- Implementation of the INDIGO Program will support other objectives of AB 32 and related amendments by reducing local air pollutant emissions through the installation of energy efficiency, electrification, renewable energy, and other decarbonization improvements. Other AB 32 objectives supported may include, but are not limited to:
    - The opportunity for industrial facilities to participate in and benefit from statewide efforts to reduce GHG emissions.
    - The State's efforts to improve air quality by reducing air pollutant emissions associated fossil fuels combustion. As a large percentage of industrial facilities are in

disadvantaged communities, INDIGO projects will likely reduce emissions of air pollutants in these communities.
  - Prioritizing project funding toward California's most disadvantaged communities. Over 50 percent of the largest GHG emitters in the industrial sector are located in disadvantaged communities.

Percentage of total funding that will be expended for projects that are located in and benefit priority populations[3] per CARB guidance

- The administering agency has established a target to expend at least 35 percent of the total project funds received under this fiscal year appropriation to fund projects that provide benefits to disadvantaged or low-income communities or low-income households. We expect this amount to include 25 percent of total project funds for investments in and benefiting residents of disadvantaged communities, 5 percent in and benefiting residents of low-income communities or low-income households, and 5 percent in and benefiting low-income communities or low-income households that are within a half mile of a disadvantaged community.

Describe the benefits to priority populations per CARB guidance

- These expenditures will result in the installation of energy efficiency, electrification renewable energy and other decarbonization technologies, some of which will be installed in industrial facilities located in priority populations. This may result in localized reduction of criteria air pollution emissions and improved air quality through reduced and avoided on-site fossil fuel consumption.

Explain strategies the administering agency will use to maximize benefits to disadvantaged communities

- The CEC will include preference points in the solicitation for projects located in and benefiting priority populations. The applicant must provide a meaningful explanation of how the project meets CARB's criteria for providing benefits to priority populations.

Explain how the administering agency will avoid potential substantial burdens to disadvantaged communities and low-income communities or, if unknown, explain the process for identifying and avoiding potential substantial burdens

- The CEC will provide preference points during the scoring phase for applications that are located in and benefiting priority populations. Projects may result in reduced or avoided on-site electricity, natural gas and/or other fossil fuels consumption which could result in reduced criteria air pollutant emissions and improved air quality. Applicants who receive these preference points must ensure their projects do not have substantial burdens to disadvantaged communities and low-income communities.

[3] Priority populations include residents of: (1) census tracts identified as disadvantaged by California Environmental Protection Agency per SB 535; (2) census tracts identified as low-income per AB 1550; or (3) a low-income household per AB 1550. See Section VII.B Funding Guidelines for more information on the definitions of priority populations.

Element (5) A description of how the administering agency will document the result achieved from the expenditure to comply with Division 25.5 (commencing with Section 35800) of the Health and Safety Code.

How the administering agency will track / report progress to make sure projects are implemented per requirements in statute and CARB guidance

- The CEC has over 30 years of experience implementing similar programs and projects. Recipient agreements will include a statement of work, budget, and other documents needed to execute an agreement. Commission staff will track progress for the INDIGO Program projects through active management of the recipients, including the submission of progress reports and invoices (per CARB guidance), with supporting documentation to justify expenditures, on-site verification and evaluation of equipment installations performed by the CEC. Critical project review meetings will ensure the projects are completed and installed according to the approved grant agreement.

Describe the approach that will be used to document GHG emission reductions and/or other benefits before and after project completion

- For the initial estimates of GHG emissions reductions, applicants are required to include the following information:
    - Baseline energy consumption (e.g., kWh, kW, therms)
    - Proposed energy efficiency, electrification, renewable energy and/or other decarbonization measures(s).
    - Post project electricity and fossil fuel reduction; and associated GHG emission reductions.
    - Estimated annual energy savings (e.g., therms, kWh, kW).

  To verify energy savings and GHG emission reductions, recipients may be required to provide an independent evaluation of annual post-project energy consumption for one year after equipment installation.

Type of information that will be collected to document results, consistent with CARB guidance

- To determine the job benefits, the CEC will compile data from funding recipients on jobs provided, both the quality and quantity, consistent with CARB guidance.
- The CEC will collect data on project location, baseline and estimated energy usage, energy costs, type of upgrade that was installed, expected quantification period, and other data, as applicable and as specified in CARB guidance.
- Once operational, the CEC will collect information on project outcomes for at least 25 percent of projects, consistent with CARB guidance.

How the administering agency will report on program status

- The CEC will provide regular updates on expenditures, project status, and benefits in reports prepared according to CARB guidance. At a minimum, the reports will include expenditure amounts, current estimates of GHG emission reductions, quantification of other applicable co-benefits (e.g., jobs created, units retrofitted), and other benefits to priority populations. Reports will also include information on project outcomes for at least 25 percent of operational projects after the start of the project with a requirement of one year tracking or other term based on industry type.