



# Air Resources Board



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**Edmund G. Brown Jr.**  
Governor

TO: Howard Levenson  
Deputy Director  
Materials Management and Local  
Assistance Division  
California Department of Resources,  
Recycling and Recovery

FROM: Cynthia Marvin, Chief  
Transportation and Toxics Division

DATE: April 22, 2016

SUBJECT: GREENHOUSE GAS REDUCTION FUND: CALRECYCLE  
EXPENDITURE RECORD FOR FISCAL YEAR 2015-16 GREENHOUSE  
GAS REDUCTION LOAN PROGRAM

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Thank you for submitting the final expenditure record (attached) on behalf of the California Department of Resources Recycling and Recovery (CalRecycle) on April 11, 2016 to satisfy the requirements of Senate Bill 1018 (Budget and Fiscal Review Committee, Chapter 39, Statutes of 2012) for expenditures from the Greenhouse Gas Reduction Fund (Fund). We appreciate the iterative consultation process with CalRecycle staff on the development of this record to support expenditures from the Fund for the Greenhouse Gas Reduction Loan Program.

This memorandum documents that Air Resources Board (ARB) staff concurred on April 22, 2016 that the attached record is consistent with the statutory requirements of Government Code Section 16428.9 and with ARB's expectations, as documented in the *Funding Guidelines for Agencies that Administer California Climate Investments*.

The CalRecycle Expenditure Record for the Greenhouse Gas Reduction Loan Program for Fiscal Year 2015-16, along with this memorandum, will be published on the ARB Cap-and-Trade Auction Proceeds website at: [www.arb.ca.gov/auctionproceeds](http://www.arb.ca.gov/auctionproceeds).

If you have any questions concerning this memorandum, please contact me at (916) 324-0062 or via email at [Cynthia.Marvin@arb.ca.gov](mailto:Cynthia.Marvin@arb.ca.gov).

Attachment

cc: See next page.

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.*

California Environmental Protection Agency

**Greenhouse Gas Reduction Fund: Expenditure Record**

**Fiscal Year: 2015-16**

CalRecycle

Greenhouse Gas Reduction Loan Program

**Authorizing legislation:** SB 862, Chapter 36, Statutes of 2014

**(1) A description of each expenditure proposed to be made by the state agency pursuant to the appropriation**

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<input type="checkbox"/> Agency that will administer funding	<ul style="list-style-type: none"><li>▪ Department of Resources Recycling and Recovery (CalRecycle)</li></ul>
<input type="checkbox"/> Amount of proposed expenditure and appropriation reference	<ul style="list-style-type: none"><li>▪ The total proposed expenditure is \$6,534,000 per Public Resources Code (PRC) section 42996(c). This includes \$5,000,000 (both State Operations and Local Assistance) for FY 2015-16 and \$1,534,000 remaining from FY 2014-15 in the CalRecycle Greenhouse Gas Reduction Revolving Loan Fund.</li><li>▪ Awarded loans come from the local assistance appropriation 3970-101-9747 which has a total of \$4,529,000 allocated for FY 2015-16.</li><li>▪ Per appropriation 3970-001-9747, administrative costs total \$471,000.</li><li>▪ A total of \$6,063,000 is available for local assistance in the forms of loans.</li></ul>
<input type="checkbox"/> Estimated amount of expenditures for State agency administrative costs	<ul style="list-style-type: none"><li>▪ The total expenditure includes \$471,000 for State Operations costs in FY 2015-16.</li></ul>
<input type="checkbox"/> If applicable, identify laws or regulations that govern how GGRF funds will be used	<ul style="list-style-type: none"><li>▪ PRC section 42997.<ul style="list-style-type: none"><li>(a) The CalRecycle Greenhouse Gas Reduction Revolving Loan Program is hereby established and shall be administered by the department.</li><li>(b) (1) The department shall expend the moneys transferred pursuant to subdivision (c) of PRC section 42996, and any additional moneys appropriated by the Legislature for the purposes of this subdivision, to provide loans to reduce greenhouse gas emissions by promoting in-state development of infrastructure to process organics and other recyclable materials into new value-added products. The moneys shall be expended consistent with the requirements of Article 9.7 (commencing with Section 16428.8) of Chapter 2 of Part 2 of Division 4 of Title 2 of the Government Code and Chapter 4.1 (commencing with</li></ul></li></ul>

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Section 39710) of Part 2 of Division 26 of the Health and Safety Code.

(2) For a loan made pursuant to this subdivision, the department shall expend the moneys in the loan fund to provide loans to public and private entities located in the state for any of the following:

(A) Organics composting.

(B) Anaerobic digestion.

(C) Recyclable material manufacturing infrastructure projects or other related activities that reduce greenhouse gas emissions.

(3) For purposes of this subdivision, eligible infrastructure

projects that reduce greenhouse gas emissions include, but are not limited to, any of the following:

(A) Capital investments in new facilities and increased throughput at existing facilities for activities, such as converting windrow composting to aerated-static-pile composting to use food waste as feedstock.

(B) Designing and constructing anaerobic digestion facilities to produce biofuels and bioenergy.

(C) Designing and constructing facilities for processing recyclable materials.

- AB 1532 (Pérez, Chapter 807, Statutes of 2012), SB 535 (de León, Chapter 830, Statutes of 2012), SB 1018 (Budget and Fiscal Review Committee, Chapter 39, Statutes of 2012), and SB 862 (Committee on Budget and Fiscal Review, Chapter 36, Statutes of 2014) provide the general framework for how the auction proceeds will be administered to further the purposes of AB 32.

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Continuation of existing Expenditure Record

- This fiscal year's appropriation will fund a continuing program, the revolving loan program for Greenhouse Gas Reduction Fund projects. The revolving loan program has been previously funded under an existing Expenditure Record that covered both the revolving loan program and a grant program. This Expenditure Record reflects only the revolving loan program funded with existing appropriations.

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Project category

- Waste Diversion

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Type of projects that will be eligible for funding

Eligible projects must be located in California and result in permanent, annual, and measurable greenhouse gas (GHG) emission reductions as well as increases in the quantity of materials diverted from landfills; a portion of the projects must also provide economic/environmental benefits to disadvantaged communities. The types of eligible projects include:

- Construction, renovation, or expansion of facilities to increase in-state infrastructure for:

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1. The digestion or composting of organics into compost, soil amendments, biofuels, or bioenergy; or
  2. The manufacturing of value-added finished products using California derived recycled content fiber, plastic, or glass.
- Construction, renovation, or expansion of facilities to increase in-state infrastructure for:
    1. The preprocessing of organics when providing preprocessed materials to an in-state digestion or composting facility that is using the waste to make compost, soil amendments, biofuels, or bioenergy; or
    2. The preprocessing of fiber, plastic or glass waste when providing preprocessed materials to an in-state manufacturing facility that is using the waste to make finished products.
  - Food waste prevention projects result in measurable reduction in food waste normally destined for a landfill. These project can prevent food waste through source reduction and/or edible food rescue. Source reduction can be achieved through equipment or technology improvements that result in less measurable food waste being generated by the applicant that was previously disposed in a landfill. Food rescue may result in rescued food being distributed to people in a disadvantaged community with any food waste residuals from the project being sent to a compost, digestion, or fermentation facility when one is available within the food waste prevention project's service area.
  - New and expanded facilities will be required to use the best available control technology (BACT) to limit emissions and ensure compliance with air quality standards.
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Intended recipients

- Local governments
    - Cities, counties, and cities and counties as defined in PRC section 30109.
    - Regional or local sanitation agencies, waste agencies, or Joint Powers Authorities.
  - Private, for-profit entities. For purposes of this program, a "private, for-profit entity" is defined as a business intended to operate at a profit and return a profit to its owners. The business must be qualified to do business in California and in good standing with all applicable California state agencies, including, but not limited to, the Secretary of State and the Franchise Tax Board.
  - Nonprofit organizations (except private schools) registered with the federal government under 501(c)3, (c)4, (c)6 or (c)10 of the Internal Revenue Code.
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□ Process for selecting projects for funding

- CalRecycle anticipates releasing the loan application in April 2016 with announcement of awards on a monthly basis as loan applications are received, processed, and approved. Loans will be evaluated and scored by a CalRecycle review panel based on the scoring criteria approved by CalRecycle's Director in October 2015 (Scoring Criteria was revised March 2016) and available at:  
<http://www.calrecycle.ca.gov/Actions/PublicNoticeDetail.aspx?id=1613&aiid=1465>.
  - Applications will be further evaluated by CalRecycle's independent loan committee to ensure that the applicants are viable financially and will be able to repay the loans as required.
  - Loans will be evaluated and processed on a first-come, first-served basis and must attain a passing score of 30 points to be eligible for funding. If oversubscribed and several applications are being considered simultaneously, applicants must attain a passing score of 30 points and will be processed competitively based on the highest score received. Staff will cease accepting loan applications when all funds have been encumbered.
  - CalRecycle reserves the right to partially fund or fund individual phases of selected proposals, and CalRecycle may fund an amount less than requested. To ensure successful completion for projects that are partially funded by CalRecycle, applicants are required to submit financial information including other funding sources, which are taken into consideration by CalRecycle.
  - Loan administration: The loan interest rate is 4.00-percent fixed for the term of the loan. The loan term is ten years when the loan is secured by business assets, including the equipment funded from loan proceeds, or 15-years when real estate is also taken as loan collateral. Repayment is ten or 15 years, with interest only during the first six months to allow time for the equipment to be installed and operational, plus 114 monthly payments of principal and interest. The repayments are deposited back into the Greenhouse Gas Reduction Loan Funds as received on a monthly basis, and the funds become immediately available to fund new loans.
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**(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.**

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□ How the expenditure is reflected in the three-year Investment Plan and the Scoping Plan

- Appropriated funds are to be used for capital costs such as construction or equipment that will support the expansion of existing, and establishment of new, organic materials management and recyclable commodities manufacturing facilities in California. Organic materials management will result in reduced methane emissions from landfills and recyclable commodities manufacturing will reduce greenhouse gas emissions in upstream management and manufacturing processes.
  - The 2013 “Cap-and-Trade Auction Proceeds Investment Plan” lists as an eligible investment “Natural Resources and Solid Waste Diversion”, specifically: reducing GHG emissions through “increased in-state diversion of municipal solid waste from disposal through waste reduction, diversion, and reuse.” In addition, Appendix B of the Investment Plan states that loans could be issued through CalRecycle’s Recycling Market Development Zone loan program. CalRecycle could process loans for new/expanded recycled fiber, plastic and glass manufacturing, composting and anaerobic digestion facilities.
  - The 2014 Scoping Plan Update identifies such facilities as key priorities in the waste sector and highlights the need to divert compostable organic material, the primary source of fugitive methane emissions at landfills. The 2014 Scoping Plan Update further describes the potential for the waste sector to achieve reductions of as much as 20-30 million metric tons CO<sub>2</sub>e, with most of the estimated emissions benefits outside of California. In state, total emissions from composting and landfill operations are estimated to be 8.5 million metric tons, which is primarily from organic materials (*ARB’s Greenhouse Gas Inventory Data*). This is supported by various models and studies, including the U.S. EPA Waste Reduction Model (WARM), ARB’s Low Carbon Fuel Standard pathways for anaerobic digestion, ARB’s official emission reduction factors (e.g., for composting and recycling).
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**(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.**

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<p><input type="checkbox"/> Describe how expenditures will achieve GHG reductions or net GHG benefits</p>	<ul style="list-style-type: none"><li>▪ Expenditures will achieve GHG emission reductions by expanding existing capacity or establishing new facilities in California to reduce the amount of California-generated green materials, food materials, and/or Alternative Daily Cover (ADC) being sent to landfills, which represent one of the largest anthropogenic sources of methane (<i>US EPA Inventory of U.S. greenhouse gas emissions and sinks, ARB's Greenhouse Gas Inventory Data</i>). ADC is cover material other than earthen material placed on the surface of the active face of a municipal solid waste landfill at the end of each operating day to control vectors, fires, odors, blowing litter, and scavenging.</li><li>▪ Organics projects achieve net GHG benefits by redirecting organic materials from landfills to composting and anaerobic digestion facilities.</li><li>▪ Recycled fiber, plastic, and glass projects achieve net GHG benefits by substituting California-generated recyclable commodities for virgin materials in manufacturing processes, to produce recycled-content products.</li></ul>
<p><input type="checkbox"/> Expected time frame when reductions will be achieved and how expenditure will maintain GHG reductions or net GHG benefits</p>	<p>GHG emission reductions will begin to accrue shortly after loan awards are made, construction and equipment installation is completed, and projects are fully implemented. GHG emission reductions should begin for most projects in calendar year 2016, increase as projects become fully implemented, and then continue at maximum levels for the lifetime of the facilities (typically estimated to be 20 years for most types of facilities). GHG emissions that result from avoided landfill methane emissions will continue into the future since the waste is diverted from landfills.</p>

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**(4) A description of how the state agency considered the applicability and feasibility of other nongreenhouse gas reduction objectives of Division 25.5 (commencing with Section 38500) of the Health and Safety Code.**

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

- The waste diversion projects will yield economic, environmental, and public health co-benefits. These projects will provide California jobs both during construction and afterward. Reducing the amount of municipal solid waste landfilled will improve air quality by reducing criteria and toxic pollutants and GHG emissions from landfills in California. Improvements to existing recycling facilities can allow for increased throughput while reducing air pollutants, for example, conversion of open-windrow composting to aerated static piles with biofilters, reduces emissions of VOCs and GHGs from piles, as well as NOx and particulate emissions from diesel-powered windrow turning. Similarly, electrification of grinders and trommels reduces NOx and particulate emissions associated with these activities. In the case of anaerobic digestion, processing of highly putrescible feedstocks within a closed system reduces fugitive emissions of GHGs and criteria pollutants, while producing the value-added products of solid and liquid fertilizers, renewable electricity and clean-burning low-carbon vehicle fuels. In addition, projects involving reduced transport distances for hauling material will result in additional GHG emission reductions and reduced emissions of toxic pollutants and fine particulates.
  - Compost and anaerobic digestion projects produce valuable soil amendments which have a number of environmental co-benefits such as reducing soil erosion, displacing of synthetic fertilizers, and increasing soil water holding capacity. Combined, these environmental co-benefits can help California agriculture adapt to climate change.
  - Waste diversion projects may also reduce the distance waste is hauled to landfills, thereby reducing vehicle miles travelled, as well as the associated criteria and toxic air pollutants.
  - Application of compost improves soil health and reduces the amount of water needed for irrigation and potentially reduces fertilizer applications. In turn, this results in less energy use for water pumping and movement and potentially less nitrogen loading into the atmosphere and groundwater. Reduces methane emissions in landfills and upstream GHG emissions associated with manufacturing products.
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<p>❑ How the project will support other AB 32 objectives</p>	<ul style="list-style-type: none"> <li>▪ Improves and modernizes California’s energy infrastructure by funding distributed, small-scale bioenergy projects such as anaerobic digesters.</li> <li>▪ Complements the State’s efforts to improve water and/or air quality (reduced criteria and toxic emissions) because expanded and new composting facilities will have to take advantage of new technologies and best management practices, and through electrification of equipment.</li> <li>▪ Directs public and private investment towards disadvantaged communities in California due to the design of the scoring criteria.</li> </ul>
<p>❑ Percentage of total funding that will be expended for projects that are “located within” and “provide benefits to” disadvantaged communities, per the criteria in Volume 2 of ARB’s Funding Guidelines</p>	<ul style="list-style-type: none"> <li>▪ CalRecycle has a goal of awarding at least 25 percent of the total available funds to projects that meet the common needs of and provide benefits to disadvantaged communities. The department also has a goal of awarding at least 10 percent of the total available funds to projects that meet the common needs of, provide benefits to, and are located within disadvantaged communities. Disadvantaged communities are those identified using CalEnviroScreen version 2.0.</li> </ul>
<p>❑ Describe the disadvantaged community benefits and explain strategies the agency will use to maximize benefits</p>	<ul style="list-style-type: none"> <li>▪ These expenditures will support projects that meet the common needs of and are located within or provide benefits to residents of disadvantaged communities. CalRecycle will prioritize projects that meet at least one, and preferentially multiple criteria for evaluating benefits to disadvantaged communities listed in ARB’s Funding Guidelines Appendix 2.A. CalRecycle will prioritize projects that meet common needs of disadvantaged communities (as described in ARB’s Funding Guidelines Table 2-2).</li> <li>▪ Investment in waste diversion projects can: improve air and water quality in disadvantaged communities (see examples in previous co-benefit section); provide access to jobs/job training for disadvantaged community residents; and/or locate food rescue projects in disadvantaged communities, among other benefits. CalRecycle is using the following strategies to maximize community benefits: <ol style="list-style-type: none"> <li>1. awarding additional points to applicants that can demonstrate they meet the common needs of and provide benefits to a disadvantaged community;</li> <li>2. incentivizing programs with food rescue projects that</li> </ol> </li> </ul>

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increase food access to disadvantaged community residents;

3. requesting that applicants contact disadvantaged community representatives to discuss their project and request letters of support; and

4. providing outreach using a variety of approaches (technical and business assistance to all communities; distributing funding and application information via statewide listserves; and promoting the loan program through Recycling Market Development Zone coordinators located in regions throughout the State).

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**(5) A description of how the state 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.**

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| <p>☐ How the agency will track and report progress to make sure projects are implemented per GGRF requirements</p>  | <ul style="list-style-type: none"> <li>▪ CalRecycle will report the loan disbursements and identify the equipment and related expenses that was paid by loan proceeds. Expenditures are approved by CalRecycle and disbursed by an escrow company directly to vendors on previously approved expenses.</li> <li>▪ The borrowers will be required to submit annual reports to CalRecycle for a 12-month period ending September 30, to ensure that CalRecycle has sufficient time to compile and review the loan borrower’s annual survey, and submit final reports to ARB as required for the annual report to the Legislature.</li> <li>▪ Project tracking and reporting will be conducted as described in ARB’s Funding Guidelines.</li> </ul>  |
| <p>☐ Approach that will be used to document net GHG reductions before and after project completion. Include citations for references that support methodology</p> | <ul style="list-style-type: none"> <li>▪ Borrowers will calculate the net GHG emission reductions from waste diversion projects using the ARB approved Greenhouse Gas Quantification Methodology as found at <a href="http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/quantification.htm">http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/quantification.htm</a>. Borrowers will use the ARB Draft Quantification Methodology for Fiscal Year 2015-16 until the final version is approved by ARB, at which time borrowers GHG emission reduction calculations will be modified if necessary.</li> <li>▪ CalRecycle will work closely with ARB staff to refine GHG emission reduction quantification methodologies and estimates to ensure that only projects with net GHG reductions are funded with GGRF.</li> </ul> |
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- Type of information that will be collected to document project results, as described in ARB guidelines
    - To determine the job creation benefits, the CalRecycle will compile data from funding recipients, including: number of job-years provided, average wages and benefits, the number of people who completed job training or received industry-recognized certifications, and census tract location of job/training recipients.
    - CalRecycle will collect data on project location, baseline and estimated GHG emissions, expected project life, and other data as specified in ARB's guidelines.
    - For the loan program, as specified in the borrower's loan agreement, borrowers will be required to report annually on data required by Table 3.A-14 in the ARB Funding Guidelines which includes expenditure amounts, project description and locations, greenhouse gas emission reductions and tons of material diverted from landfills, estimates of other applicable co-benefits, jobs created, and description of benefits to disadvantaged communities and associated census tracts for those communities. Borrowers and guarantors will also be required to provide current financial information annually.

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- How the agency will report on program status

CalRecycle will provide regular updates on expenditures, project status, and benefits in reports prepared according to ARB guidelines. At a minimum, the reports will include expenditure amounts, project description and locations, current estimates of GHG emission reductions and tons of material diverted from landfills, estimates of other applicable co-benefits, jobs created, and description of benefits to disadvantaged communities and associated census tracts for those communities. In addition, CalRecycle will provide periodic updates on the programs' status at its regular monthly public meetings.

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