



Air Resources Board



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TO: Howard Levenson
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California Department of Resources Recycling and Recovery

FROM: Cynthia Marvin, Chief
Transportation and Toxics Division
Air Resources Board

DATE: October 23, 2014

SUBJECT: GREENHOUSE GAS REDUCTION FUND: CALRECYCLE
EXPENDITURE RECORD FOR FISCAL YEAR 2014-15

Thank you for submitting the final expenditure record (attached) on behalf of the California Department of Resources Recycling and Recovery (CalRecycle) on October 23, 2014, 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 waste diversion programs.

This memorandum documents that Air Resources Board (ARB) staff concurred on October 23, 2014 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 August 6, 2014 final ARB *Interim Guidance to Administering Agencies on Expenditure Record and Fiscal Procedures*.

The CalRecycle Expenditure Record for Fiscal Year 2014-15, along with this memorandum, will be published on the ARB Cap-and-Trade Auction Proceeds website at: www.arb.ca.gov/auctionproceeds.

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

Attachment

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: 2014-15

The purpose of CalRecycle’s Greenhouse Gas Reduction Fund (GGRF) programs is to reduce greenhouse gas emissions by providing grants and loans for the development of infrastructure to process California-generated municipal solid waste (i.e., organics, paper, textiles, carpet, wood, plastic, or glass) into new value-added products, and reduce the amount of California-generated municipal solid waste that is sent to landfills. The following is the CalRecycle FY 2014-15 expenditure record for GGRF monies.

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

<input type="checkbox"/> Agency that will administer funding	CalRecycle
<input type="checkbox"/> Amount of proposed expenditure and appropriation reference	<p>Appropriated funds will support the expansion of existing, and establishment of new, organic materials management and recyclable commodities manufacturing facilities in California. This will result in reduced methane emissions from landfills and further greenhouse gas emission reductions in upstream management and manufacturing processes. The 2014 Scoping Plan Update identifies such facilities as key priorities in the waste sector, and organic materials management was a key priority in the Administration’s Investment Plan. Projects can benefit disadvantaged communities by resulting, where locally acceptable, in new or upgraded facilities that reduce greenhouse gas emissions and secondarily provide for greater compliance with water and air quality standards and that create jobs through linkages with local food rescue projects.</p> <p>The 2014 Budget provided:</p> <p>\$20 Million from the GGRF per the Budget Act of 2014 (Chapter 25, statutes of 2014):</p> <ul style="list-style-type: none"> • \$19.521 million for organics and recyclable commodities grants per Item 3970-101-3228, and • \$479,000 for administrative costs per Item 3970-001-3228 <p>\$5 Million from the Greenhouse Gas Revolving Loan Fund per Public Resources Code (PRC) and the Budget Act of 2014 (Chapter 25, statutes of 2014):</p> <ul style="list-style-type: none"> • \$4.662 million for organics and recyclable commodities loans PRC 42997. Any future funds deposited into CalRecycle’s GHG Revolving Loan account (e.g., principal repayment, interest proceeds, or future budget allocations) will be re-invested in additional projects based on availability of cash) • \$338,000 for administrative costs per Item 3970-001-9747 <p>For more information on CalRecycle’s GGRF grants programs, see http://www.calrecycle.ca.gov/Climate/GrantsLoans/default.htm; similar information on the loan program will be posted in fall 2014.</p>

<input type="checkbox"/> Intended recipients	<ul style="list-style-type: none"> • Local governments <ul style="list-style-type: none"> ○ Cities, counties, and cities and counties as defined in Public Resources Code 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. This definition includes benefit corporations, as defined in Corporations Code section 14601(a). 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. • Solid waste service providers, owners/operators of solid waste facilities (e.g., landfills and transfer stations). • Operators of composting or anaerobic digestion facilities or other related digestion or fermentation facilities. • State agencies (including offices, departments, bureaus, and boards). • The University of California, the California State University, or other public universities or colleges. • 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. • Qualifying Indian Tribes. A “Qualifying Indian Tribe” is defined as an Indian tribe, band, nation or other organized group or community, residing within the borders of California, which: <ol style="list-style-type: none"> 1. Is recognized for special programs and services provided by the United States to Indians because of the status of its members as Indians. 2. Can establish that it is a government entity which meets the criteria of the grant program.
<input type="checkbox"/> Project category	Waste diversion

<p><input type="checkbox"/> Type of projects that will be eligible for funding</p>	<p>Grant and loan projects must be located in California and result in permanent, annual, and measurable reductions in greenhouse gas emissions and increases in the quantity of materials diverted from landfills, with funding allocated as follows:</p> <ol style="list-style-type: none"> 1. \$14.521 million in funding for increases in the quantity (tons) of California-generated green materials, food materials, or Alternative Daily Cover (ADC) diverted from California landfills and composted, digested or diverted to other fermentation processes; and 2. \$5 million in funding for increases in quantity (tons) of California-generated fiber, plastic, and glass materials diverted from landfills, and used to manufacture products. <p>Eligible Projects Include:</p> <ul style="list-style-type: none"> • Construction, technology upgrades for environmental improvements (e.g., such as incorporation of aerated static piles), or expansion of facilities in California that compost, anaerobically digest, or use other related digestion or fermentation processes to turn green or food materials into value-added products; this includes purchase of equipment, machinery and site improvements associated with the installation thereof. <ul style="list-style-type: none"> ○ A food waste prevention component may be included within a project described in the bullet above, that rescues edible food in California from becoming waste normally destined for landfills and results in increased food distribution to people, with any food waste residuals from the project being sent to composting or anaerobic digestion or other digestion or fermentation process when they are available within their service areas. • Construction, technology upgrades for environmental improvements, or expansion of facilities in California using California-derived recycled-content fiber, plastic, or glass in the manufacture of value-added products; this includes purchase of equipment, machinery, and site improvements associated with the installation thereof. <ul style="list-style-type: none"> ○ A manufacturing facility may partner with another facility, including a supplier of California recycled-content feedstock.
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❑ Process for selecting projects for funding

Organics and recyclable commodities grant applications will be evaluated and scored by a CalRecycle review panel based on the scoring criteria, available here <http://www.calrecycle.ca.gov/Climate/GrantsLoans/>, for fiscal year 2014/15 approved by CalRecycle's Director in March 2014, which was contingent at that time upon appropriation of funds in the 2014 Budget Act. For grants, all eligible proposals will be ranked according to the total number of points received. An application may receive a maximum of 100 possible points, with a 60-point minimum score and GHG reductions required to be considered eligible for funding. Concise applications with strong detail and justification, logical work plans and budgets, proven readiness to move forward, the greatest plausible environmental benefits, and benefits to disadvantaged communities will earn maximum points. Applications receiving a passing score will be recommended for funding. Grant recommendations will be in ranked order according to each applicant's score (highest passing score to lowest passing score) until funds are exhausted. When eligible grant requests among applicants with tie scores exceed funding availability, the tie shall be brought forward to the Director at the time the awards are considered. The Director shall make the determination on tie scores, as to which applicant, if any, shall receive an award or portion of an award, in a manner that is both fair and equitable. For qualifying applications, CalRecycle staff will develop grant funding recommendations for the consideration and approval of CalRecycle's Director, or her designee; this is scheduled for October and November 2014. CalRecycle reserves the right to partially fund or fund individual phases of selected proposals, and CalRecycle may fund an amount less than requested.

Loan applications will be handled with a similar competitive process and the same basic evaluation criteria. The only major difference is that loan 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. CalRecycle staff will develop loan funding recommendations for the consideration and approval of CalRecycle's Director, or her designee; this is tentatively scheduled for March 2015. 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. Scoring criteria for the grants include project readiness and fiscal soundness.

(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.

<p>□ How the expenditure is reflected in the three-year Investment Plan</p>	<p>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 competitive grants could be distributed, using CalRecycle’s long-established procedures for grants. Loans could be issued through CalRecycle’s Recycling Market Development Zone loan program, modified to allow for some loans outside of zones. CalRecycle could process grants/loans for new/expanded manufacturing, composting and anaerobic digestion facilities and manage research contracts.</p> <p>From a climate change perspective, significant methane emission reductions can be achieved by redirecting organic materials from landfills to composting and anaerobic digestion facilities, as these materials 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>). Similar significant carbon dioxide emission reductions can be obtained by substituting recyclable commodities for virgin materials in manufacturing processes, to produce recycled-content products.</p> <p>The scientific community has long considered carbon dioxide and methane emissions as key contributors to climate change (<i>Intergovernmental Panel on Climate Change (IPCC) Climate Change 2013: The Physical Science Basis</i>), and the ARB’s 2014 Scoping Plan Update further describes the potential for the waste sector to achieve reductions of as much as 20-30 million metric tons CO₂e, 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 (<i>ARB’s Greenhouse Gas Inventory Data</i>). 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). The potential benefit from waste management sector changes is amplified by the fact that the 2013 IPCC 5th Assessment finds that the Global Warming Potential for methane is higher than previously thought, and has been increased from 25 to 28 relative to carbon dioxide.</p>
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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.

<p>❑ Expected time frame when reductions will be achieved and how expenditure will maintain GHG reductions</p>	<p>GHG emission reductions will begin to accrue shortly after grant and loan awards are made and projects are implemented. GHG emission reductions will begin in calendar year 2015, 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). Although projects receiving grants will only receive funding during the grant timeframe itself (i.e., up to 5 years), one of the scoring criteria includes the ability to sustain operations beyond the grant timeframe. For FY 2014/15, the grant encumbrance period is three fiscal years (July 2014-June 2017) and grantees have up to five years to expend (July 2014-June 2019). Facilities will continue to report on emission reductions beyond that timeframe. Expenditures will be awarded on a competitive basis to projects that are able to demonstrate they will continue to operate and realize GHG reductions after grant and loan funds have been spent. Awardees of grants will be required to report on the progress of their project on a quarterly basis, with Final Progress Reports due on April 1, 2019. Detailed reporting information will be included in the Procedures and Requirements (Exhibit B) of each Grant Agreement, and will be revised if needed to be in accordance with Air Resources Board guidance on tracking and reporting that will be provided to agencies later in calendar year 2015.</p> <p>Projects receiving loans will have similar greenhouse gas emission results, but the term of the loans themselves will typically be 7 to 10 years for repayment of principal and interest.</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.

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

- The waste diversion projects will yield economic, environmental, and public health co-benefits. These projects will provide California jobs both during construction and afterward. Operating the next generation of composting and anaerobic digestion plants will require new skills, and, where applicable, job training for disadvantaged community residents. 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, for example, conversion of open-windrow composting to aerated static piles with biofilters, reduces emissions of VOCs and GHGs from the piles, as well as NOx and particulate emissions from diesel-powered windrow turning. Similarly, electrification of grinders and trommels reduce 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. There may be some potential localized impacts, e.g., increased traffic or noise at a project site.
- 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 will also reduce the distance waste is hauled to landfills, thereby reducing vehicle miles travelled, as well as the associated criteria and toxic air pollutants.
- The grantee is required to comply fully with all applicable federal, state, and local laws, ordinances, regulations, and permits, thus ensuring minimization of environmental impacts.

<p><input type="checkbox"/> Disadvantaged community benefits, if applicable, as defined in ARB guidelines</p>	<p>These funds will benefit disadvantaged communities by establishing, where locally acceptable, new facilities that create jobs through manufacturing products, producing compost or bioenergy, or making fertilizer. Benefits also can be achieved by projects that increase throughput at existing facilities but that also involve enhanced technologies that reduce water and air emissions. For example, this could involve example conversion of open-windrow composting to aerated static pile systems, or electrification of existing heavy diesel equipment at compost sites, both of which reduce emissions of ozone precursors. Because the existing open-windrow composting infrastructure is often located in or near disadvantaged communities, the resulting air quality benefits accrue there. Similarly, moving food waste which is landfilled or composted toward anaerobic digestion completely eliminates the fugitive emissions from the degradation of these materials while producing renewable energy or next-generation fuels that have their own clean-air and economic benefits.</p>
<p><input type="checkbox"/> Percentage of total funding that will be expended for projects that benefit disadvantaged communities, per ARB guidelines</p>	<p>CalRecycle's grant program was designed to incentivize programs which include a component that rescues edible food and delivers that to hungry people. Applicants have responded to this opportunity and are reaching out in new ways to build community partnerships which could have profound and long-lasting food security benefits to disadvantaged communities.</p> <p>Overall, waste diversion projects can reduce greenhouse gas emissions and criteria and toxic/hazardous pollutants, and improve water quality by reducing the amount of municipal solid waste that is disposed in landfills in disadvantaged communities. Waste diversion projects in or near disadvantaged communities may also provide California jobs and job training for disadvantaged community residents.</p> <p>CalRecycle's Organics Grant program applicants can include an optional food recovery element in their project, which will help recover edible food before it enters the waste stream and direct it to nearby disadvantaged populations. Such programs have substantial greenhouse gas impacts through reduced need for food production (including reduced irrigation, feed, transportation, processing) and diversion of tonnage from landfills resulting in avoided landfill fugitive emissions.</p>

<p>□ How the project will support other AB 32 objectives</p>	<ul style="list-style-type: none"> • Improves and modernizes California’s energy infrastructure by funding distributed, small-scale bioenergy projects such as anaerobic digesters. • Complements the State’s efforts to improve air quality because expanded and new composting facilities will have to take advantage of new technologies and best management practices, and through electrification of equipment. • Directs public and private investment towards disadvantaged communities in California due to the design of the scoring criteria, as well as the fact that 10-20% of existing composting facilities already are located in disadvantaged communities. • 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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(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.

<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"> • CalRecycle will calculate the net GHG reductions from waste diversion projects using the following ARB approved methodologies: <ul style="list-style-type: none"> ○ Air Resources Board’s Method for Estimating Greenhouse Gas Emission Reductions from Compost from Commercial Organic Waste http://www.arb.ca.gov/cc/protocols/localgov/pubs/compost_method.pdf ○ Low Carbon Fuel Standard Pathways adopted by California Air Resources Board (carbon intensity factors assumed for the proposed project should be ones that best characterize the specific feedstock/product and facility circumstances for the proposed project). http://www.arb.ca.gov/quels/lcfs/workgroups/workgroups.htm#pathways ○ Compliance Offset Protocols adopted by California Air Resources Board. http://www.arb.ca.gov/cc/capandtrade/offsets/offsets.htm ○ For recycled plastic or glass, recycling emission reduction factors for PET, HDPE, mixed plastics, and glass in the California Air Resources Board’s Method For Estimating Greenhouse Gas Emission Reductions from Recycling. http://www.arb.ca.gov/cc/protocols/localgov/pubs/recycling_method.pdf • CalRecycle will coordinate with ARB staff to estimate net GHG reductions and co-benefits (e.g., energy savings) using standardized methodologies with ARB staff’s concurrence. Calculations will be reviewed by CalRecycle staff and ARB for consistency with State GHG reduction efforts. • CalRecycle will work closely with ARB staff to refine GHG reduction methodologies and estimates to ensure that only projects with net GHG reductions are funded with GGRF.
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<p><input type="checkbox"/> Type of information that will be collected to document project results, as described in ARB guidelines</p>	<ul style="list-style-type: none"> • To determine the job creation benefits, the CalRecycle will compile data, including: number of job-years provided, average wages and benefits, the number of people who completed job training or received industry-recognized certifications, and residence 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. • Grantees are required to report on the progress of their grant on a quarterly basis. The Final Progress Report will be due on April 1, 2019. Detailed reporting information is included in the Procedures and Requirements (Exhibit B) of each Grant Agreement. See: http://www.calrecycle.ca.gov/Climate/GrantsLoans/Organics/FY201415/Apply/PandRs.pdf • For the loan program, as specified in the borrower's loan commitment letter and loan agreement, borrowers will be required to report annually on greenhouse gas emissions reduction, waste diversion, benefits to disadvantaged communities, and jobs created as a result of the project. Borrowers and guarantors will also be required to provide current financial information annually.
<p><input type="checkbox"/> How the agency will report on program status</p>	<p>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 locations, current estimates of GHG emission reductions, and quantification of other applicable co-benefits. In addition, CalRecycle will provide periodic updates on the programs' status at its regular monthly public meetings.</p>