



Air Resources Board



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Edmund G. Brown Jr.
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TO: Tracie L. Billington
Division of Integrated Regional Water Management
Department of Water Resources
901 P Street, Room 213-A
Sacramento, California 95814

FROM: Cynthia Marvin, Chief
Transportation and Toxics Division

DATE: August 5, 2016

SUBJECT: GREENHOUSE GAS REDUCTION FUND: DEPARTMENT OF WATER
RESOURCES EXPENDITURE RECORD FOR FISCAL YEAR 2015-16
WATER EFFICIENCY PROJECTS AND PROGRAMS

Thank you for submitting the final expenditure record (attached) on behalf of Department of Water Resources (DWR) on August 5, 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 DWR staff on the development of this record to support expenditures from the Fund for Water Efficiency Projects and Programs.

This memorandum documents that Air Resources Board (ARB) staff concurred on August 5, 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 DWR Expenditure Record for Water Efficiency Projects and Programs 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.

If you have any questions concerning this memorandum, please contact me at (916) 324-0062 or via email at 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

Department of Water Resources
Water Efficiency Projects & Programs

Authorizing legislation: Budget Act of 2015, as amended by Chapter 321, Statutes of 2015 in Senate Bill (SB) 101 (Committee on Budget and Fiscal Review)

(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	<ul style="list-style-type: none">▪ Department of Water Resources (DWR)
<input type="checkbox"/> Amount of proposed expenditure and appropriation reference	<ul style="list-style-type: none">▪ The total expenditure is \$20 million (\$19 million for local assistance; \$1 million for state operations), per the Budget Act of 2015, as amended by Chapter 321, Statutes of 2015 in SB 101 (Committee on Budget and Fiscal Review).
<input type="checkbox"/> Estimated amount of expenditures for State agency administrative costs	<ul style="list-style-type: none">▪ DWR is using \$1 million from the FY13-14 budget for state operations in FY 15-16. \$1 million for state operations from the FY 15-16 budget will be spent in FY 2016-17 and FY 2017-2018.
<input type="checkbox"/> If applicable, identify laws or regulations that govern how GGFR funds will be used	<ul style="list-style-type: none">▪ 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.▪ SB 101 (Committee on Budget and Fiscal Review) lays out program specifications and eligible applicants.
<input type="checkbox"/> Continuation of existing Expenditure Record	<ul style="list-style-type: none">▪ This fiscal year's appropriation supports a continuing program that will fund similar types of projects that have been previously funded under an existing Expenditure Record.
<input type="checkbox"/> Project category	<ul style="list-style-type: none">▪ Water-energy efficiency
<input type="checkbox"/> Type of projects that will be eligible for funding	<ul style="list-style-type: none">▪ For the 2016 solicitation, DWR's draft guidelines and proposal solicitation package proposes funding commercial or institutional water efficiency programs or projects, or residential water efficiency programs or projects benefitting disadvantaged communities, that reduce greenhouse gas (GHG) emissions, and also reduce water and energy use. Each project will produce water savings and reduce energy use. Specific amounts of energy and water savings will depend upon the type(s) of projects, the location, and water system specifics.

<input type="checkbox"/> Intended recipients	<ul style="list-style-type: none">▪ Local agencies▪ Joint powers authorities▪ Nonprofit organizations
<input type="checkbox"/> Process for selecting projects for funding	<ul style="list-style-type: none">▪ DWR conducts a competitive solicitation to select projects for funding. Following public review, DWR issues written Program Guidelines and related documents detailing the specific processes used to solicit and select projects for funding. Applications are evaluated to assess the sufficiency, adequacy, and supporting documentation of the estimated water savings, associated energy savings and GHG reductions, agreement components, and whether the project provides benefits to a disadvantaged community. Corrections are made to energy and water savings estimates, if necessary. Deficiencies or questions on the other aspects of the applications are also noted. Applications are ranked based on criteria published in the program's guidelines. The project rankings are the basis for selecting projects for funding, in conjunction with the amounts of requested funding and available funding.

(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.

<input type="checkbox"/> How the expenditure is reflected in the three-year Investment Plan and the Scoping Plan	<ul style="list-style-type: none">▪ AB 1532 requires that GGRF moneys be appropriated in a manner that is consistent with the three-year Investment Plan. The 2013 "Cap-and-Trade Auction Proceeds Investment Plan" recommends funding water system and use efficiency. In addition, Appendix B of the Investment Plan specifically describes competitive grants or direct funding to reduce GHG emissions related to water supply, use, and conveyance. Therefore, the expenditures covered by this record are consistent with the Investment Plan and align with the priorities expressed in the Plan.▪ The First Update to the Climate Change Scoping Plan, released in May 2014, identifies key strategies and recommendations to continue reducing GHG emissions and achieve the goals and purposes of AB 32. The recommended actions for the water sector include prioritizing investments in conservation and water-use efficiency activities.
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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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| <input type="checkbox"/> Describe how expenditures will achieve GHG reductions or net GHG benefits | <ul style="list-style-type: none">▪ The California Energy Commission estimates that the operation of water supply and wastewater systems throughout the state, especially end uses, accounts for about 19 percent of the state's total use of electric power and 30 percent of non-power plant natural gas use in California. Because end uses comprise the vast majority of this energy intensity, a focused effort on integrating water and energy efficiency at the customer level has the potential to reduce the GHG emissions of water use in California. In particular, conserving hot water use in the urban settings, such as in the commercial, institutional, and industrial sectors, has the greatest potential for energy and GHG savings. For example, the energy intensity of hot water can be between 20-40 times greater than that of cold water.▪ The reduction in GHG for a grant program that implements water efficiency programs or projects can be calculated. DWR will only fund projects where the energy use reduction is directly linked or connected to the reduction in water use at the project's location. DWR requires grant recipients to identify the water and energy savings as part of accounting procedures associated with the grant requirements. ARB's Quantification Methodology¹ calculates the GHG reductions, water savings, and energy savings for each project. |
| <input type="checkbox"/> Expected time frame when reductions will be achieved and how expenditure will maintain GHG reductions or net GHG benefits | <ul style="list-style-type: none">▪ Energy savings and GHG emission reductions will occur upon implementation of the funded projects, which will begin in year 2017. Water saving fixture projects provide immediate water and energy savings, and savings over their useful life, which depending on the type of project funded, can be up to 20 years. |
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¹ Greenhouse Gas Quantification Methodology for the Department of Water Resources Water-Energy Grant Program, Greenhouse Gas Reduction Fund FY 2015-16 available at: <http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/quantification.htm>

(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.

<input type="checkbox"/> Expected co-benefits, particularly environmental, economic, public health and safety, and climate resiliency	<ul style="list-style-type: none">▪ Expected co-benefits of funded projects include water savings, energy savings, improved drinking water quality, water supply reliability, increased employment, and reduced utility costs. The California Water Action Plan² states that conservation and efficiency are keys to reducing the energy needed to pump, transport, treat and deliver water and contribute to reducing GHG emissions which improves California’s climate resiliency. Residential, commercial, and institutional water conservation helps not only with reducing California’s carbon footprint, but also serves as an important climate adaptation strategy as well.
<input type="checkbox"/> How the project will support other AB 32 objectives	<ul style="list-style-type: none">▪ Maximizes additional environmental and economic co-benefits for California by reducing water use, which is particularly beneficial in a time of drought. Reduced water uses in a time of drought can provide other co-benefits such as reduced customer utility bills or expenses for procuring alternate supplies.
<input type="checkbox"/> 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.	<ul style="list-style-type: none">▪ It is DWR’s intent to give funding priority to projects that provide benefits to disadvantaged communities. The projects may be located within or outside disadvantaged communities, but they must provide direct, meaningful, and assured benefits to a disadvantaged community; and meaningfully address an important community need.▪ DWR’s proposal selection ranking gives higher priority to projects that provide benefits to disadvantaged communities and to those located within disadvantaged communities. We are not proposing specific percentage targets at this time.
<input type="checkbox"/> Describe the disadvantaged community benefits and explain strategies the agency will use to maximize benefits.	<ul style="list-style-type: none">▪ Residential projects benefitting disadvantaged communities will result in lower water and energy bills for residents. It will also improve water conservation for the entire disadvantaged community contributing to a more reliable water supply in their area.▪ Commercial projects (e.g. restaurants or laundromats) can result in reduced utility costs to disadvantaged community business owners but it is unknown if those savings would be passed on to customers. Institutional projects at disadvantaged

² The California Water Action Plan was released by Governor Brown in January 2014. It is available at http://resources.ca.gov/california_water_action_plan/

community schools can result in lower utility costs for school districts which may allow the districts to divert funding to services that directly benefit disadvantaged community children attending the school. However, it is unknown whether the savings from lower utility costs will be diverted directly to benefit the children attending the schools in disadvantaged communities.

- The program implements public outreach to inform potential applicants of upcoming solicitations and uses proposal selection ranking that gives higher funding priority to projects that benefit disadvantaged communities. If a proposal includes sites that are both inside and outside of disadvantaged community census tracts, 75% of the grant funds for that proposal must be allocated to the projects that benefit disadvantaged community residents in order to rank higher in the prioritized funding list.
- Applicants will be required to describe the community need their project addresses and how they identified that community need. Methods to identify the community need include looking at the factors in CalEnviroScreen that caused an area to be defined as a disadvantaged communities; hosting community meetings to get local input; receiving documentation of community support (e.g., letters or emails); or addressing common needs in ARB's Funding Guidelines, Table 2-2³.

(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.

How the agency will track and report progress to make sure projects are implemented per GGRF requirements.

- Grantees provide quarterly progress reports which include updates on all tasks, milestones achieved, impediments in completion of any tasks, solutions to impediments, and photos documenting progress. During the grant implementation, grantees conduct monitoring so that at the completion of the grant, grantees can compare baseline water and energy use to post-project use, and quantify water and energy savings and corresponding GHG reduction resulting from the project. DWR uses information provided by grantees to meet the annual reporting requirements in ARB's Funding Guidelines, Table 3.A-9.

³ Air Resources Board, "Cap-and-Trade Auction Proceeds, Funding Guidelines for Agencies that Administer California Climate Investments", available at: <http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/fundingguidelines.htm>

Approach that will be used to document net GHG reductions before and after project completion. Include citations for references that support methodology.

- DWR will calculate GHG emission reductions in accordance with ARB's Quantification Methodology⁴, based on peer reviewed methods for estimating water and energy savings.
- The calculations regarding energy reductions (and corresponding reductions in GHG emissions) require a knowledge of the volume of water saved and the amount of GHG emissions associated with the energy source (e.g., natural gas, coal, hydroelectric, solar, wind). Applicants use ARB's Quantification Methodology to provide an estimate of the expected GHG, water, and energy reductions of the activities or programs for which they are applying for a grant. Grant agreements that govern the use of funding and metric reporting require grant recipients to provide updates on project progress and how the project is performing in regards to monitored savings as compared to estimated amounts in the application.

Type of information that will be collected to document project results, as described in ARB guidelines

- DWR collects data on project location, project activities completed, baseline water and energy usage, type of project (e.g., upgrade that was installed), water and energy usage resulting from the project, expected project life, and other data in accordance with ARB Funding Guidelines (Table 3.A-9).

How the agency will report on program status

- DWR provides regular updates on expenditures, project location, project status, and benefits in ARB report templates and as required by ARB Funding Guidelines. At a minimum, the reports include expenditure amounts, current estimates of GHG emission reductions, estimated energy savings, estimated water savings, and quantification of other applicable co-benefits.
 - These data will be provided and reported in the Department of Finance's annual report on GGRF expenditures, as required by Health and Safety Code Section 39720.
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⁴ Greenhouse Gas Quantification Methodology for the Department of Water Resources Water-Energy Grant Program, Greenhouse Gas Reduction Fund FY 2015-16 available at: <http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/quantification.htm>