



Air Resources Board



Matthew Rodriguez
Secretary for
Environmental Protection

Mary D. Nichols, Chairman
1001 I Street • P.O. Box 2815
Sacramento, California 95812 • www.arb.ca.gov

Edmund G. Brown Jr.
Governor

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: May 21, 2015

SUBJECT: GREENHOUSE GAS REDUCTION FUND: DEPARTMENT OF WATER
RESOURCES EXPENDITURE RECORD FOR FISCAL YEAR 2014-15

Thank you for submitting the final expenditure record (attached) on behalf of the Department of Water Resources (DWR) on May 21, 2015, 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-Energy Efficiency Projects and Programs.

This memorandum documents that Air Resources Board (ARB) staff concurred on May 21, 2015 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 DWR 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

Tracie Billington
May 21, 2015
Page 2

cc: (via email)

Kasey Schimke
Assistant Director, Legislative Affairs
California Department of Water Resources
Kasey.Schimke@water.ca.gov

Martha Guzman-Aceves
Office of Governor Edmund G. Brown Jr.
Martha.Guzman-Aceves@GOV.ca.gov

Cliff Rechtschaffen
Office of Governor Edmund G Brown Jr.
Cliff.Rechtschaffen@GOV.ca.gov

Greenhouse Gas Reduction Fund: Expenditure Record

Fiscal Year: 2014-15

Department of Water Resources
Water Efficiency Projects & Programs

On March 27, 2015 the Department of Water Resources (DWR) was appropriated state operations and local assistance funding in AB 91 (Committee on Budget), which amended the 2014-15 Budget Act to provide \$1 million for state operations support and \$9 million for “local assistance for local agencies, joint powers authorities, or nonprofit organizations to implement residential, commercial, or institutional water efficiency programs or projects that reduce greenhouse gas emissions (GHG), and also reduce water and energy use.”

(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
<input type="checkbox"/> Amount of proposed expenditure and appropriation reference	<ul style="list-style-type: none"> ▪ The total expenditure is \$10 million (\$9 million for local assistance; \$1 million for state operations), per Provision 2 of Section 3860-101-3228, of the Budget Act of 2014, as amended by Chapter 1, Statutes of 201 in AB 91 (Committee on Budget).
<input type="checkbox"/> Intended recipients	<ul style="list-style-type: none"> ▪ Local agencies ▪ Joint powers authorities ▪ Nonprofit organizations
<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"> ▪ Residential, commercial, or institutional water efficiency programs or projects that reduce greenhouse gas emissions, and also reduce water and energy use. Each of these projects 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.

Process for selecting projects for funding

- Applications are evaluated to assess the sufficiency, adequacy, and supporting documentation of the estimated water saving, associated energy savings; 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 on energy savings and water savings and categorized as high, medium, or low based on where they fall in the ordinate ranking and disadvantaged community benefits, categorized on a yes/no basis. Applications are then placed into a priority funding matrix and applications are funded based on the amount of available funding, requested funding, and where in the priority funding matrix the application falls. Special consideration may be given in response to the Governor's Executive Orders proclaiming drought.
-

(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 reflected in the three-year Investment Plan

- In many instances there exists a direct nexus between water and energy use. For instance, the California Energy Commission (CEC) 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. Beyond CEC estimates, other state efforts, such as the AB 32 Scoping Plan, the Embedded Energy in Water Pilot Impact Evaluation, and the “Cap-and-Trade Auction Proceeds Investment Plan” have also identified the energy intensity of water use and highlighted the need for improved water-use efficiencies. This research and documentation establishes investments in water conservation and water pumping or conveyance, fueled by renewable or low-carbon energy, as potential GHG reduction strategies for California. To be eligible, water-energy projects under the proposed grant program must demonstrate water savings, the linkage to energy reduction, and the corresponding GHG reduction.
 - 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, identified 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.
-

(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><input type="checkbox"/> Expected time frame when reductions will be achieved and how expenditure will maintain GHG reductions</p> | <ul style="list-style-type: none">▪ The reduction in GHG for a grant program that implements water efficiency programs or projects that (1) reduce GHG emissions, and also reduce (2) water use and (3) energy use, can be calculated. DWR will require grant recipients to identify the savings described above as part of accounting procedures associated with the grant requirements. Energy use and GHG emission reduction will occur upon implementation of the funded projects, which will begin in year 2016. Water saving fixture projects also provide immediate water savings and savings for their useful life of up to 20 years. |
|---|---|
-

(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.

-
- | | |
|--|---|
| <p><input type="checkbox"/> Expected co-benefits, particularly environmental, economic, public health and safety</p> | <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 reduction in utility costs. |
|--|---|
-

- | | |
|---|--|
| <p><input type="checkbox"/> Disadvantaged community benefits, if applicable, as defined in ARB guidelines</p> | <ul style="list-style-type: none">▪ The Water-Energy grant program was designed to provide targeted benefits to disadvantaged communities consistent with ARB guidelines including clean, affordable drinking water, reduced water utility costs, and providing public health benefits, such as the elimination of contaminant pathways through fixing leaky infrastructure. |
|---|--|
-

- | | |
|---|---|
| <p><input type="checkbox"/> Percentage of total funding that will be expended for projects that benefit disadvantaged communities, per ARB guidelines</p> | <ul style="list-style-type: none">▪ The Water and Energy grant program places a higher funding priority for those projects that provide benefit to disadvantaged communities. DWR's intent is to award at least 50% of the funding to projects that provide direct benefit to disadvantaged communities. The way the program is designed, the percentage is not restricted to 50%, but rather, can exceed 50% to disadvantaged communities. |
|---|---|
-

-
- | | |
|--|--|
| <p>□ How the project will support other AB 32 objectives (see below)</p> | <p>▪ 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 a drought can provide other co-benefits such as reduced customer utility bills or expenses for procuring alternate supplies</p> |
|--|--|
-

(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> | <p>▪ Water management typically requires some level of energy to convey water. Energy use in water management also includes the treatment of water to achieve a level of quality that is adequate for its intended use. Depending upon the source of energy and the distance or energy intensity to transport or treat the water, the level of GHG emissions can vary. While during a drought, any saved water is likely used elsewhere, water use efficiency projects, by definition, provide for a more efficient use of water. Where such efficiency reduces the need for transportation or treatment of additional water, or provides for the reuse of water in ways that limit further energy needs, a reduction in GHG emissions can be calculated. Pursuing water efficiency in times of scarcity can also minimize and prevent the pursuit of more energy-intensive sources, including desalination and increased groundwater pumping. Avoiding carbon-intensive marginal water supplies during drought can prevent investment in physical infrastructure that locks in energy-intensive water supplies.</p> <p>▪ The calculations regarding energy reductions (and correspondingly, reductions to GHG emissions) requires a knowledge of the volume of water saved, the energy intensity of that water for that locale, and the amount of GHG emissions associated with the energy source. Different sources of energy (natural gas, coal, hydroelectric, solar, wind) are imbedded with different intensities of GHG emissions, or potentially none. Applicants will be required 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. The calculation of GHG, water, and energy savings will be made using methodologies developed by ARB and DWR. Grant agreements that govern the use of</p> |
|--|---|
-

funding and metric reporting will require grant recipients to provide status on project progress and how the project is performing via 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 will collect data on project location, baseline and estimated water and energy usage, type of project (i.e., upgrade that was installed), expected project life, and other data in accordance with ARB reporting guidelines.

How the agency will report on program status

- Program status and benefits, including GHG emission reductions, will be reported in the Department of Finance's annual report on Greenhouse Gas Reduction Fund expenditures, as required by Health and Safety Code Section 39720.
 - DWR will provide regular updates on expenditures, project location, project status, and benefits in reports prepared according to ARB guidelines. At a minimum, the reports will include expenditure amounts, current estimates of GHG emission reductions, and quantification of other applicable co-benefits.
-