

Enclosure 2: California Climate Investments – Program-Level Response to Joint Legislative Audit Committee – June 30, 2016
Data from 2016 Annual Report to the Legislature (as of December 2015)



The information provided on the table below is included as Enclosure 2 to ARB’s response to the Joint Legislative Audit Committee’s letter dated June 2, 2016, requesting additional information on the programs and projects that receive funding from the Greenhouse Gas Reduction Fund (GGRF).

In response to that letter, ARB collected and compiled the following information from agencies that administer California Climate Investments. The table below provides program information specifically responsive to items ‘a’ and ‘c-g’ in the JLAC letter.

| A | | B | C | | | | D | E | F | G |
|--|-------------------------|---|------------------|--|---------------------------------|---------------------------------|--|--|---|--|
| Administering Agency and GGRF Funding Appropriated (\$M) | Program | Method to Estimate GHG Reductions ¹ | \$ Awarded (\$M) | GHG Reductions (MTCO _{2e}) | MTCO _{2e} / \$ Awarded | \$ Awarded / MTCO _{2e} | Does the Program Have a GHG Cost-Effectiveness Threshold or is GHG Cost-Effectiveness a Factor for Eligibility or Ranking? | Other Metrics for Evaluating Program Effectiveness | Could GHG Reductions Have Been Achieved Through Existing Regulations? | Timeframe Over Which GHG Reductions are Estimated ² |
| High-Speed Rail Authority Appropriated: \$850M* *Approximate value based on 25% continuous appropriation | High-Speed Rail Project | Enclosure 4 includes all ARB quantification methods developed to-date | \$850 | For GHG reductions from HSR system, see Footnote 3. ³ | N/A ³ | N/A ³ | Yes, because the Authority uses GHG cost-effectiveness in a range of program delivery components, including competitive procurement for contractors. | <ul style="list-style-type: none"> • Air pollution reduction • Economic development • Mobility and access • Jobs | No, GHG emissions resulting from shifting passengers from air travel to High Speed Rail would not be achieved under existing regulations. Although emissions reductions attributable to reduced passenger vehicle use are from sources covered by the Cap-and-Trade regulation, the regulation is not designed to achieve all of the same objectives as this program. | 2025-2075 |

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| California State Transportation Agency Appropriated: \$265M* *Approximate value based on 10% continuous appropriation | Transit and Intercity Rail Capital Program | Enclosure 4 includes all ARB quantification methods developed to-date | \$224.3 | 865,000 | 0.004 | \$259 | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Increased ridership through expanded and improved rail and transit service (including connectivity to rail services through expanded and improved transit and/or feeder bus services) • Reduced VMT from automobiles and the number of automobile trips through growth in ridership • Integration of the services with the state's various rail and transit operations, including integration with the state's high-speed rail system • Improved safety for users or non-users of the transit or rail service • Benefits to disadvantaged communities | Yes, because the program funds GHG reductions from or emission sources covered by Cap-and-Trade. However, this program furthers additional objectives, which include reducing VMT from automobiles and the number of automobile trips through growth in transit ridership, increasing ridership through expanded and improved rail and transit service, and enhancing the connectivity, integration, and coordination of the state's various transit systems, including the high-speed rail system. | 2015-2035 |

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| Department of Transportation (Caltrans) Appropriated: \$145M* *Approximate value based on 5% continuous appropriation | Low Carbon Transit Operations Program | Enclosure 4 includes all ARB quantification methods developed to-date | \$24.2 | N/A ⁴ | N/A | N/A | No, the program does not have a GHG cost-effectiveness threshold or use cost-effectiveness to select projects because the program funds transformative technology demonstration/deployment needed for future GHG reductions (e.g., zero-emission equipment); it is designed to provide significant benefits to disadvantaged communities and/or co-benefits, in addition to reducing greenhouse gases. | <ul style="list-style-type: none"> • Demonstrate that each project reduces GHG emissions • Increase mode share • Increase ridership, • An emphasis on 50% of program funds benefiting disadvantaged communities | Yes, because the program funds GHG reductions from emission sources covered by Cap-and-Trade. However, this program furthers additional objectives, which include increasing transit mode share, increasing ridership through expanded and improved transit service, connectivity to intercity rail and various transit systems with an emphasis in providing benefits to disadvantaged communities. | 2015-2065 |

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| Strategic Growth Council Appropriated: \$610M* *Approximate value based on 20% continuous appropriation | Affordable Housing and Sustainable Communities | Enclosure 4 includes all ARB quantification methods developed to-date | \$154.4 | 810,000 | 0.005 | \$191 | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Reduction of housing costs • Reduction of transportation costs • Increased access to active modes of transportation • Improved air quality • Increased access to parks • Reduced water use | Yes, because the program funds GHG reductions from emission sources covered by Cap-and-Trade. However, this program funds project types (e.g. the integration of affordable housing and transportation) and furthers additional objectives, which include affordable housing and disadvantaged community benefits, which are not required by regulation. | 2015-2045 |
| | Sustainable Agricultural Lands Conservation | Enclosure 4 includes all ARB quantification methods developed to-date | \$4.2 | 71,000 | 0.017 | \$59 | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Acres of agricultural land conserved • Habitat and/or ecosystem services role of the land • Greenbelt or urban separator role of the land | Yes, because the program funds GHG reductions from emission sources covered by Cap-and-Trade. However, this program furthers additional objectives, which include conserving threatened agricultural land, that are not required by regulation. | 2015-2045 |

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| Air Resources Board Appropriated: \$325M | Clean Vehicle Rebate Project | Enclosure 4 includes all ARB quantification methods developed to-date | \$204.3 | 4,470,000 | 0.022 | \$46 | No, the program does not have a GHG cost-effectiveness threshold or use cost-effectiveness to select projects because the program funds transformative technology demonstration and deployment needed for future GHG reductions (e.g., zero-emission equipment). | <ul style="list-style-type: none"> • Progress of California ZEV market using sales and registration data • Number of rebates issued, funding levels, and rebates for disadvantaged communities • Participant demographics (income levels and geographic distribution of rebates) using application data and recipient surveys • Emission reductions (GHG, NOx, ROG, PM) | Yes, because the program funds GHG reductions from emission sources covered by the Cap-and-Trade and Advanced Clean Cars regulations. However, as a result of this funding program GHG reductions are expected to begin sooner and in excess of what would occur under the Advanced Clean Car regulation because the regulatory program applies only to manufacturers to offer vehicles for sale, not to consumers to make the purchase. | 2015-2030 |
| | Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project | Enclosure 4 includes all ARB quantification methods developed to-date | \$19.9 | 44,000 | 0.002 | \$452 | No, the program does not have a GHG cost-effectiveness threshold or use cost-effectiveness to select projects because the program funds transformative technology demonstration and deployment needed for future GHG reductions (e.g., zero-emission equipment). | <ul style="list-style-type: none"> • Sales growth • Manufacturer diversity • Purchase price • Participating business/fleet type • Disadvantaged community benefits • Emission reductions (GHG, NOx, ROG, PM) | Yes, because the program funds GHG reductions from emission sources covered by Cap-and-Trade. However existing regulations would not accomplish the same objectives of this program, which includes funding projects that advance zero and near-zero emission technology, reduce harmful air pollution, and benefit disadvantaged communities. In addition, the GHG reductions are expected to begin sooner than would occur under Cap-and-Trade. | 2014-2030 |

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| Air Resources Board (cont.) | Enhanced Fleet Modernization Program Plus-Up | Enclosure 4 includes all ARB quantification methods developed to-date | \$12.0 | 29,000 | 0.002 | \$414 | No, because the program is designed to provide significant benefits to disadvantaged communities and/or co-benefits, in addition to reducing greenhouse gases. | <ul style="list-style-type: none"> Participant experience Number and types of vehicles funded Fuel economy of vehicle replacements Age and mileage of the retired and replaced vehicles Income level and whether the consumer resides in or near a disadvantaged community Emission reductions (GHG, NOx, ROG, PM) | Yes, because the program funds GHG reductions from emission sources covered by the Cap-and-Trade and Advanced Clean Cars regulations. However, as a result of this funding program GHG reductions are expected to begin sooner and in excess of what would occur under the Advanced Clean Cars regulation because the regulation applies only to manufacturers that offer vehicles for sale, not to consumers that make the purchase. Additionally, California's existing climate regulations are not designed to achieve the same objectives as this program, which include maximizing disadvantaged community benefits. | 2015-2018 |
| | Car Sharing and Mobility Options Pilot | Enclosure 4 includes all ARB quantification methods developed to-date | \$2.0 | TBD | TBD | TBD | No, because the program is designed to provide significant benefits to disadvantaged communities and/or co-benefits, in addition to reducing greenhouse gases. | <ul style="list-style-type: none"> Number of participants Demographics Participant transportation uses and needs Number, type, and mileage of trips taken Fuel/electricity used Changes in participant knowledge and acceptance of clean vehicles Opportunities for enhancing usefulness for participants and | Yes, because the program funds GHG reductions from emission sources covered by the Cap-and-Trade and Advanced Clean Cars regulations. However, as a result of this funding program GHG reductions are expected to begin sooner and in excess of what would occur under the Advanced Clean Cars regulation because the regulation applies only to manufacturers that offer vehicles for sale, not to consumers that make the purchase. Additionally, California's | 2016-2019 |

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| Air Resources Board (cont.) | | | | | | | | project continuation and expansion • Emission reductions (GHG, NOx, ROG, PM) | existing climate regulations are not designed to achieve the same objectives as this program, which include maximizing disadvantaged community benefits. | |
| | Public Fleets Increased Incentives Pilot | Enclosure 4 includes all ARB quantification methods developed to-date | \$2.9 | 4,000 | 0.001 | \$725 | No, because the program is designed to provide significant benefits to disadvantaged communities and/or co-benefits, in addition to reducing greenhouse gases. | • Number of rebates issued and funding levels • Location, types, and number of vehicles purchased • Emission reductions (GHG, NOx, ROG, PM) | Yes, because the program funds GHG reductions from emission sources covered by the Cap-and-Trade and Advanced Clean Cars regulations. However, as a result of this funding program GHG reductions are expected to begin sooner and in excess of what would occur under the Advanced Clean Cars regulation because the regulation applies only to manufacturers that offer vehicles for sale, not to consumers that make the purchase. Additionally, California's existing climate regulations are not designed to achieve the same objectives as this program, which include maximizing disadvantaged community benefits. | 2015-2018 |
| | Financing Assistance Pilot Project | Enclosure 4 includes all ARB quantification methods developed to-date | TBD | TBD | TBD | TBD | No, because the program is designed to provide significant benefits to disadvantaged communities and/or co-benefits, in addition to reducing greenhouse gases. | • Number of participants • Demographics (income, zip code/census tract) • Cost, type, age, and mileage of vehicles purchased or leased • Amount and type of financing assistance provided | Yes, because the program funds GHG reductions from emission sources covered by the Cap-and-Trade and Advanced Clean Cars regulations. However, as a result of this funding program GHG reductions are expected to begin sooner and in excess of what would occur under the Advanced | TBD |

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| Air Resources Board (cont.) | | | | | | | | <ul style="list-style-type: none"> • Loan term, amount, interest rate • Progress on outstanding loans • Emission reductions (GHG, NOx, ROG, PM) | Clean Cars regulation because the regulation applies only to manufacturers that offer vehicles for sale, not to consumers that make the purchase. Additionally, California's existing climate regulations are not designed to achieve the same objectives as this program, which include maximizing disadvantaged community benefits. | |
| | Zero Emission Truck and Bus Pilot Projects | Enclosure 4 includes all ARB quantification methods developed to-date | TBD | TBD | TBD | TBD | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Technology performance • Zero-emission range and mileage accumulation; • Fuel and energy usage • Vehicle reliability • Costs (vehicle, infrastructure, maintenance) • Emission reductions (GHG, NOx, ROG, PM) • Fleet acceptance and driver experience • Potential for technology transfer to freight • Potential for cost reductions with production increases | Yes, because the program funds GHG reductions from emission sources covered by Cap-and-Trade. However existing regulations would not accomplish the same objectives of this program, which includes funding projects that advance zero and near-zero emission technology, reduce harmful air pollution, and benefit disadvantaged communities. In addition, the GHG reductions are expected to begin sooner than would occur under Cap-and-Trade. | TBD |

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| Air Resources Board (cont.) | Advanced Technology Freight Demonstration Projects: Multi-Source Facility Projects | Enclosure 4 includes all ARB quantification methods developed to-date | TBD | TBD | TBD | TBD | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Potential commercial viability • Zero-emission range and mileage/hour accumulation • Fuel and energy usage • Vehicle/equipment performance • Vehicle/equipment reliability • Costs (vehicle, infrastructure, maintenance) • Emission reductions (GHG, NOx, ROG, PM) • Potential for technology transfer to other sectors • Fleet acceptance and driver/operator experience | Yes, because the program funds GHG reductions from emission sources covered by Cap-and-Trade. However existing regulations would not accomplish the same objectives of this program, which includes funding projects that advance zero and near-zero emission technology, reduce harmful air pollution, and benefit disadvantaged communities. In addition, the GHG reductions are expected to begin sooner than would occur under Cap-and-Trade. | TBD |
| | Advanced Technology Freight Demonstration Projects: Drayage Trucks | Enclosure 4 includes all ARB quantification methods developed to-date | TBD | TBD | TBD | TBD | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Potential commercial viability • Zero-emission range • Fuel and energy usage • Vehicle performance • Vehicle reliability • Costs (vehicle, infrastructure, maintenance) • Emission reductions (GHG, NOx, ROG, PM) • Potential for technology transfer to other sectors • Fleet acceptance and driver experience | Yes, because the program funds GHG reductions from emission sources covered by Cap-and-Trade. However existing regulations would not accomplish the same objectives of this program, which includes funding projects that advance zero and near-zero emission technology, reduce harmful air pollution, and benefit disadvantaged communities. In addition, the GHG reductions are expected to begin sooner than would occur under Cap-and-Trade. | TBD |

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| Department of Community Services and Development Appropriated: \$154M | Single-Family/Small Multi-Family Energy Efficiency and Solar Water Heating | Enclosure 4 includes all ARB quantification methods developed to-date | \$24.0 | 85,000 | 0.004 | \$282 | Yes, GHG cost-effectiveness and the lifetime of each measure are used to determine which combination of energy efficiency measures will be installed. The thresholds depend upon whether programs are implemented in partnership with other state or federal programs. | <ul style="list-style-type: none"> • Energy savings • Energy cost savings for low-income households | Yes, because the program funds GHG reductions from emission sources covered by Cap-and-Trade and the Renewable Portfolio Standard. However, this program furthers additional objectives, which include energy cost savings for low-income households in disadvantaged communities. | 2015-2035 |
| | Single-Family Solar Photovoltaics | Enclosure 4 includes all ARB quantification methods developed to-date | \$22.3 | 106,500 | 0.005 | \$209 | Yes, GHG cost-effectiveness is used to determine whether solar projects should be installed at a given dwelling. | <ul style="list-style-type: none"> • Energy savings • Energy cost savings for low-income households | Yes, because the program funds GHG reductions for emissions covered by Cap-and-Trade and the Renewable Portfolio Standard. However, this program furthers additional objectives which include energy cost savings for low-income households in disadvantaged communities. | 2015-2040 |
| | Large Multi-Family Energy Efficiency and Renewables | Enclosure 4 includes all ARB quantification methods developed to-date | \$24.0 | 67,500 | 0.003 | \$356 | Yes, GHG cost-effectiveness and the lifetime of each measure are used to determine which combination of energy efficiency measures will be installed. The thresholds depend upon whether programs are implemented in partnership with other state or federal programs. | <ul style="list-style-type: none"> • Energy savings • Energy cost savings for low-income households | Yes, because the program funds GHG reductions for emissions covered by Cap-and-Trade and the Renewable Portfolio Standard. However, this program furthers additional objectives which include energy cost savings for low-income households in disadvantaged communities. | 2015-2040 |

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| Pending ⁵ Appropriated: \$20M | Energy Efficiency: Public Buildings | N/A | \$0 | | 0 | 0 | N/A | N/A | N/A | N/A |
| California Department of Food and Agriculture Appropriated: \$75M | Dairy Digester Research and Development Program | Enclosure 4 includes all ARB quantification methods developed to-date | \$11.1 | 1,377,000 | 0.124 | \$8 | No, the program does not have a GHG cost-effectiveness threshold or use cost-effectiveness to select projects because the types of projects the program funds are inherently cost-effective. | <ul style="list-style-type: none"> Renewable energy production Odor reduction Pathogen reduction | No, GHG reductions being achieved by this program are not required by existing regulations. The Proposed Short-Lived Climate Pollutant Strategy identifies the need for a future regulation to reduce manure methane emissions from the dairy industry. | 2015-2025 |
| | State Water Efficiency and Enhancement Program | Enclosure 4 includes all ARB quantification methods developed to-date | \$18.1 | 552,000 | 0.030 | \$33 | No, because the program is designed to provide significant co-benefits, in addition to reducing greenhouse gases (e.g., water savings). | <ul style="list-style-type: none"> Water savings | Yes, because the program funds GHG reductions from emission sources covered by Cap-and-Trade. However, this program furthers additional objectives which include water savings, reduced energy costs, improved air quality, and protection of water quality. | 2015-2030 |
| | Biofuels ⁶ | N/A | \$0 | 0 | 0.000 | \$0 | N/A | N/A | N/A | N/A |

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| Department of Water Resources Appropriated: \$70M | Water-Energy Grant Program | Enclosure 4 includes all ARB quantification methods developed to-date | \$27.8 | 197,000 | 0.007 | \$141 | Yes, because the projects were ranked high to low based on water saved per total project cost and energy saved per total project cost. Projects with highest water savings per total project cost and highest energy savings per total project cost were funded first. | <ul style="list-style-type: none"> • Benefits to disadvantaged communities • Water savings • Energy savings | Yes, because the program funds GHG reductions from emission sources covered by Cap-and-Trade. However, this program furthers additional objectives which include water and energy savings. | 2016-2041 |
| | Turbines ⁷ | Enclosure 4 includes all ARB quantification methods developed to-date | \$20.0 | TBD | TBD | TBD | No, the program does not have a GHG cost-effectiveness threshold or use cost-effectiveness to select projects. | <ul style="list-style-type: none"> • Sustainability and reliability of the benefits | Yes, because the program funds GHG reductions from emission sources covered by Cap-and-Trade and the Renewable Portfolio Standard. However, GHG reductions are expected to begin sooner as a result of this funding. | 2015-2045 |

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| Department of Fish and Wildlife Appropriated: \$27M | Sacramento-San Joaquin Delta and Coastal Wetland Restoration | Enclosure 4 includes all ARB quantification methods developed to-date | \$15.4 | 519,000 | 0.034 | \$30 | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Habitat restoration and enhancement • Improved habitat connectivity • Improved flood protection for local communities • Reduction or reversal of land subsidence • Protection and improvement of water quality through filtration and pollution reduction • Enhanced readiness to climate changes | No, GHG reductions being achieved by this program are not required by existing regulations. The program only funds projects that provide benefits that are greater than any required applicable environmental mitigation measures or compliance obligations, where applicable. | 2020-2070 |
| | Mountain Meadow Ecosystems Restoration | Enclosure 4 includes all ARB quantification methods developed to-date | \$5.9 | 52,000 | 0.009 | \$113 | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Habitat restoration and enhancement • Reduction and delay of peak flows within and downstream of mountain meadows • Increased late season flows downstream of mountain meadows • Increased water storage capacity in mountain meadows • Protect and provide climate refugia | No, GHG reductions being achieved by this program are not required by existing regulations. The program only funds projects that provide benefits that are greater than any required applicable environmental mitigation measures or compliance obligations, where applicable. | 2018-2068 |

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| Administering Agency and GGRF Funding Appropriated (\$M) | Program | Method to Estimate GHG Reductions ¹ | \$ Awarded (\$M) | GHG Reductions (MTCO _{2e}) | MTCO _{2e} / \$ Awarded | \$ Awarded / MTCO _{2e} | Does the Program Have a GHG Cost-Effectiveness Threshold or is GHG Cost-Effectiveness a Factor for Eligibility or Ranking? | Other Metrics for Evaluating Program Effectiveness | Could GHG Reductions Have Been Achieved Through Existing Regulations? | Timeframe Over Which GHG Reductions are Estimated ² |
| Department of Forestry and Fire Protection (CALFIRE) Appropriated: \$42M | Forest Health Program | Enclosure 4 includes all ARB quantification methods developed to-date | \$7.7 | 2,046,000 | 0.266 | \$4 | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Wildlife habitat improvement • Water quality improvement • Number of acres treated • Biomass used for energy production • Biomass used for harvested wood products | No, GHG reductions being achieved by this program are not required by existing regulations. | 2019-2096 |
| | Forest Legacy Program | Enclosure 4 includes all ARB quantification methods developed to-date | \$4.0 | 387,000 | 0.097 | \$10 | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Wildlife habitat protection • Water quality protection • Number of acres protected | No, GHG reductions being achieved by this program are not required by existing regulations. | 2015-2025 |
| | Urban and Community Forestry Program | Enclosure 4 includes all ARB quantification methods developed to-date | \$15.6 | 134,000 | 0.009 | \$116 | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Creating jobs • Increasing energy conservation • Reducing storm-water runoff • Improving local air and water quality • Improving public health outcomes • Utilization of removed trees to avoid such trees ending up in landfills • Reduction of urban heat island effect (reduced temps. on hot days) | No, GHG reductions being achieved by this program are not required by existing regulations. | 2016-2056 |

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| A | | B | C | | | | D | E | F | G |
|--|---------------------------------------|---|------------------|--------------------------------------|---------------------------------|---------------------------------|--|--|---|--|
| Administering Agency and GGRF Funding Appropriated (\$M) | Program | Method to Estimate GHG Reductions ¹ | \$ Awarded (\$M) | GHG Reductions (MTCO _{2e}) | MTCO _{2e} / \$ Awarded | \$ Awarded / MTCO _{2e} | Does the Program Have a GHG Cost-Effectiveness Threshold or is GHG Cost-Effectiveness a Factor for Eligibility or Ranking? | Other Metrics for Evaluating Program Effectiveness | Could GHG Reductions Have Been Achieved Through Existing Regulations? | Timeframe Over Which GHG Reductions are Estimated ² |
| Department of Resources Recycling and Recovery (CalRecycle) Appropriated: \$31M | Organics/ Composting Digestion Grants | Enclosure 4 includes all ARB quantification methods developed to-date | \$14.5 | 1,658,000 | 0.114 | \$9 | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Waste diversion • Air/water quality pollution reductions • Cost savings • Food rescue • Food waste prevention • Benefits to disadvantaged communities | No, GHG reductions being achieved by this program are not required by existing regulations. The Proposed Short-Lived Climate Pollutant Strategy identifies the need for a future regulation to effectively eliminate organic disposal in landfills. | 2016-2025 |
| | Recycling Manufacturing | Enclosure 4 includes all ARB quantification methods developed to-date | \$5.0 | 323,000 | 0.065 | \$15 | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Waste diversion • Air/water quality pollution reductions • Cost savings • Food waste prevention • Benefits to disadvantaged communities (hiring/training employees and community outreach) | No, GHG reductions being achieved by this program are not required by existing regulations. | 2015-2025 |
| | Organics and Recycling Project Loans | Enclosure 4 includes all ARB quantification methods developed to-date | \$1.7 | 470,000 | 0.276 | \$4 | Yes, GHG cost-effectiveness is one of the factors considered in project selection. | <ul style="list-style-type: none"> • Waste diversion • Air/water quality pollution reductions • Cost savings • Food rescue • Food waste prevention • Benefits to disadvantaged communities | No, GHG reductions being achieved by this program are not required by existing regulations. The Proposed Short-Lived Climate Pollutant Strategy identifies the need for a future regulation to effectively eliminate organic disposal in landfills. | 2016-2025 |

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1. The Quantification Methodologies are available on ARB's website (<http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/quantification.htm>) and are also provided as Enclosure 4, *California Climate Investments Quantification Methodologies for Estimating Greenhouse Gas Reductions and Supporting Materials*.
2. Column G lists the timeframe over which GHG reductions are estimated, or the reporting timeframe specified by the quantification methodology. In many cases, the GHG benefits are expected to continue beyond that time.
3. The High Speed Rail Project (HSR) is expected to reduce GHG emissions by 44 million metric tons, per the 2016 Annual Report to the Legislature. The 2016 Annual Report includes the estimated GHG reductions from the complete High Speed Rail System, but does not attribute these total system reductions to a particular year of funding. The High-Speed Rail Authority's updated forecasts (to be provided for ARB and public review in its forthcoming Sustainability Report) based on the 2016 Business Plan, provide a range of 58 to 71 million MTCO_{2e} in reduced emissions over the first 50 years of its operating life. GGRF funds provide a critical part of the total funds for the system, though it is difficult to estimate precisely what the ultimate GGRF investment will be, and consequently, a comparable cost effectiveness per ton of emissions reduced. Analyzing the proposed capital cost, without Federal or Prop 1a funds (approximately \$51.6 billion), results in between \$718 and \$888 per ton, and .0014 to .0011 ton/\$.
4. For FY 2014-15, as an interim guide to comply with the GHG reduction requirement, Caltrans, in consultation with ARB, developed and used a list of eligible projects determined to meet the statutory requirements of SB 862 for distribution of funds, and did not quantify GHG emission reductions at the project scale. For FY 2015-16, ARB and Caltrans developed a quantification methodology to estimate GHG emission reductions prior to project implementation.
5. Although funding for public buildings was initially appropriated to the California Energy Commission, the Administration has proposed in the FY 2016-17 Budget to have Department of General Services administer this program. The California Energy Commission did not receive any GGRF funding in FY 2014-15 or 2015-16.
6. CDFA's Alternative and Renewable Fuels Program was an in-house research program designed to review adopt and develop standards and specifications for low carbon renewable and zero-emission biofuels derived from agricultural waste.
7. ARB and DWR are working to finalize quantification of GHG reductions for the turbine projects and will include project-level data in the supplemental material to be posted online.