

May 17, 2015

Governor's May Revision: 2015-16 Cap-and-Trade Expenditure Plan

LEGISLATIVE ANALYST'S OFFICE





Background



Assembly Bill 32

- Chapter 488, Statutes of 2006 (AB 32, Núñez/Pavley), commonly referred to as AB 32, established the goal of limiting greenhouse gas (GHG) emissions statewide to 1990 levels by 2020.
- Among other provisions, the legislation directed the Air Resources Board (ARB) to develop a plan to achieve the maximum technologically feasible and cost-effective GHG emission reductions by 2020, as well as achieve co-benefits, such as maintaining air quality.



Cap-and-Trade Program

- The ARB adopted a cap-and-trade program that places a “cap” on aggregate GHG emissions from large GHG emitters (such as large industrial facilities, electricity suppliers, and transportation fuel suppliers), which are responsible for roughly 85 percent of the state’s GHG emissions.
- The cap declines over time, ultimately arriving at the target emission level in 2020. To implement the cap-and-trade program, ARB issues a number of carbon allowances equal to the cap. Each allowance is essentially a permit to emit one ton of carbon dioxide (or the equivalent amount for other GHGs).
- The board provides some allowances for free, making others available for purchase at quarterly auctions.



Background

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State Cap-and-Trade Revenues

- According to state statute, the revenues from auctions are to be deposited in the Greenhouse Gas Reduction Fund (GGRF). The funds are to be used to reduce GHG emissions and, to the extent feasible, achieve co-benefits such as job creation, air quality improvements, and public health benefits.
- In 2015-16 and beyond, state statute continuously appropriates 60 percent of cap-and-trade revenues for specific programs, including high-speed rail and affordable housing and sustainable communities grants. The remaining 40 percent is available for annual appropriation by the Legislature—hereafter referred to as discretionary spending.



Uncertain Legal Restrictions on the Use of Auction Revenues

- There is ongoing litigation over whether the state has the authority to collect revenue from cap-and-trade auctions.
- Even if the courts determine that the state does have the authority to collect auction revenue, it might be required to target spending in certain ways, such as on activities primarily intended to reduce GHG emissions.
- There continues to be uncertainty about what restrictions the courts would ultimately place on the use of these funds.



Cap-And-Trade Revenue Estimates

May Revision Assumes Additional Cap-and-Trade Revenue			
<i>(In Millions)</i>			
	2014-15	2015-16	Total
January budget	\$650	\$1,000	\$1,650
May Revision	1,350	2,000	3,350
Difference	\$700	\$1,000	\$1,700

- May Revision Revenue Estimates Higher Than Assumed in January.** The May Revision assumes a total of \$3.4 billion in total cap-and-trade revenue in 2014-15 and 2015-16—\$1.7 billion more than reflected in the Governor’s January budget.
- Updated Revenue Assumptions Are Reasonable.** The administration’s May Revision revenue estimates are a few hundred million dollars less than our February revenue estimates. However, given the significant uncertainty surrounding future cap-and-trade auction revenues, the administration’s revenue assumptions are reasonable.



2015-16 Expenditure Plan

Governor's 2015-16 Cap-and-Trade Expenditure Plan			
<i>(In Millions)</i>			
	Governor's Budget	Additional May Revision	Total
Continuously Appropriated Funds	\$600	\$600	\$1,200
High-speed rail	250	250	500
Affordable housing and sustainable communities	200	200	400
Transit and intercity rail capital projects	100	100	200
Transit operations	50	50	100
Discretionary Expenditures for New or Existing Programs	\$392	\$645	\$1,037
Incentives to purchase low carbon vehicles	200	150	350
Energy efficiency and renewable energy for low-income households	75	65	140
Forest management and urban forestry	42	50	92
Transit and intercity rail capital projects ^a	—	65	65
Wetland restoration	25	40	65
Energy efficiency and renewable energy for UC and CSU	—	60	60
Water and energy efficiency	30 ^b	60	60
Waste diversion	25	35	60
Energy efficiency and renewable energy for state buildings ^c	20	20	40
Rebates for water efficient appliances	—	30	30
Water and energy technology research and development	—	30	30
Dairy digester research and development	5	20	25
Improved agricultural soil management practices	—	20	20
Totals	\$992	\$1,245	\$2,237
GGRF Fund Balance	\$47	\$453	\$500

^a Additional funding above the existing continuous appropriation.
^b Chapter 1, Statutes of 2015 (AB 91, Committee on Budget) accelerated funding into 2014-15. This amount is not included in totals.
^c May Revision proposes to shift program from California Energy Commission to the Department of General Services.
 GGRF = Greenhouse Gas Reduction Fund.



May Revision Reflects \$600 Million of Additional Revenue Continuously Appropriated. The programs that receive continuously appropriated funds would receive a total of \$1.2 billion under the May Revision revenue assumptions.



2015-16 Expenditure Plan

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May Revision Allocates Additional \$645 Million Through the Budget Act. Most of the additional funding is allocated to programs that received funding in 2014-15 and that were already allocated funds in the Governor's January budget. However, some of the funds are being used for new programs. The major new programs are:

- **Energy Efficiency and Renewable Energy for Higher Education (\$60 Million).** Provides \$25 million to the University of California and \$35 million to the California State University to improve energy efficiency and increase use of renewable energy.
- **Rebates for Water Efficient Appliances (\$30 Million).** Provides rebates for water efficiency appliances and water saving fixtures.
- **Water and Energy Technology Research and Development (\$30 Million).** Provides funding for emerging technologies that display significant potential for both water and energy savings.
- **Healthy Soils Program (\$20 Million).** Provides incentives to change agricultural practices in a way that increases carbon sequestration in soils.



Expenditure Plan Maintains \$500 Million Fund Balance.

The May Revision reflects a 2015-16 GGRF fund balance that is about \$450 million higher than what was included in the January budget.



LAO Comments on May Revision Proposals



Limited Information Provided About Expected Benefits

- Generally, the administration provides limited information about the benefits and outcomes it expects to achieve with the proposed funding. In some cases, these programs are relatively new, and departments have limited experience that could be used to inform estimates.
- For example, the administration allocates funding to different programs intended to reduce water and energy consumption, but it provides little information about the amount of water or energy savings it expects to achieve from these programs.
- Without information about the expected benefits from each program, it is not clear if the proposed distribution of funds would maximize benefits or if some other allocation would achieve greater benefits.
- The Legislature may want to consider asking each department to report at budget hearings on the following: (1) the outcomes it expects to achieve with the additional funds, (2) how it plans to measure outcomes and benefits, and (3) how it plans to evaluate whether or not the program is successful.



LAO Comments On May Revision Proposals

(Continued)



Justification for Permanent Position Authority Is Often Unclear

Non-Continuously Appropriated Departments Requesting Permanent Positions	
Agency or Department ^a	Permanent Positions Requested
Department of Food and Agriculture	14
Air Resources Board	12
CalFire ^b	18
CalRecycle ^c	16
Department of General Services	6
Total	66

^a Does not include requests from agencies with continuous appropriations.
^b Includes nine positions in 2015-16 and nine positions in 2016-17.
^c Includes converting nine limited-term positions to permanent.

- The May Revision includes requests for 66 additional permanent positions across different departments that administer discretionary programs. Discretionary funding allocations are one time and allocations will be revisited annually.
- For loan programs—such as programs administered through CalRecycle and the Department of General Services (DGS)—it is reasonable to expect ongoing workload because loans will be repaid and new loans will be issued in the future. Accordingly, we recommend the Legislature approve those positions associated with ongoing loan programs as permanent positions—four positions for DGS and four positions for CalRecycle.
- For the other positions that are associated with programs that have temporary workload (such as programs that provide grants or rebates) it is unclear whether there is sufficient ongoing workload to justify the need for permanent positions. Thus, we recommend the Legislature approve the remaining positions as limited term.



Issues to Consider When Allocating Cap-and-Trade Funds

The administration's proposal appears generally consistent with the three-year cap-and-trade investment plan. However, the limited amount of reliable information makes it difficult to evaluate whether the proposed allocation is maximizing benefits or achieving legislative goals in the most cost-effective manner. The Legislature could use additional May Revision revenue—relative to what is assumed in the Governor's January budget—in many different ways. Below, we discuss some alternative approaches and issues to consider when determining how to allocate cap-and-trade funds. For more information on these issues, see our February report, *The 2015-16 Budget: Resources and Environmental Protection*.



Spending on Activities That Reduce Emissions From Capped Economy Might Not Change Net Emissions

- The *cap* of the cap-and-trade program ensures total GHG emissions from the capped economy do not exceed a certain level.
- Spending cap-and-trade revenues on activities that reduce GHG emissions from the capped economy might not reduce overall GHG emissions. It might simply result in a different, likely more costly, mix of GHG emission reduction activities.



Issues to Consider When Allocating Cap-and-Trade Funds *(Continued)*



Prioritize Projects That Reduce GHGs From the Uncapped Economy

- One way to avoid this interaction with the cap discussed above is to spend funds on activities that reduce emissions from the uncapped economy. In contrast to the capped economy, spending revenues on activities that reduce GHGs in the uncapped economy would not be offset by an increase in GHG emissions from other sources, thereby resulting in an overall reduction in emissions.
- For example, the administration allocates funds to wetland restoration activities and soil carbon sequestration. The emission reductions from these activities are not part of the capped economy. The Legislature could allocate more funds to these types of activities.



Prioritize Projects That Correct Market Failures

- Another strategy is to use the funds to research and develop GHG reducing technologies that the private market fails to adequately provide, even under the incentives established by the cap-and-trade program.
- The administration's proposal to funding research and development into water and energy technologies is one such strategy. The Legislature might want to consider prioritizing more of these funds for this program or others that promote research and development activities in energy, fuels, and transportation technology.
- The Legislature may wish to ask the administration if it considered any other research and development programs and, if so, why it did not include these programs in its proposal.



Issues to Consider When Allocating Cap-and-Trade Funds (Continued)



Prioritize Programs That Achieve Significant Co-Benefits

- If spending on activities that reduce emissions from the capped economy have little or no impact on net GHGs, the Legislature might want to consider giving greater weight to co-benefits when determining how to allocate funds.
- The figure below describes some of the potential co-benefits that could be achieved by spending funds on different types of activities that reduce GHGs.
- The Legislature may want to either reallocate funds differently among existing programs or allocate funds to new programs in a way that reflects its priorities for these different types of co-benefits.

Potential Co-Benefits Associated With Different GHG Reductions Programs

Program Type	Potential Co-Benefits
Transportation	<ul style="list-style-type: none"> • Improved air quality. • Health benefits from increased walking or biking.
Energy efficiency and renewable energy	<ul style="list-style-type: none"> • Financial savings to government, businesses, or individuals. • Improved air quality.
Water efficiency	<ul style="list-style-type: none"> • Water conservation. • Financial savings for businesses or individuals.
Natural resources	<ul style="list-style-type: none"> • Improved water quality, wildlife habitat, forest health. • Improved agricultural productivity.
GHG = greenhouse gas.	



Issues to Consider When Allocating Cap-and-Trade Funds *(Continued)*



Consider Allocating Additional May Revision Revenue in Future Years

- Given limited information available on the expected GHG and other benefits of programs, the Legislature could choose not to spend additional May Revision revenues in 2015-16, thereby making them available for spending in future years.
- By waiting until future years, the Legislature might have better information about the benefits of the various spending commitments made in 2014-15 and 2015-16 that could help the Legislature determine which programs are providing the greatest value. However, we caution the Legislature that it may be years before the current cap-and-trade projects are fully implemented and there is reliable information that can be used to adequately evaluate their effectiveness.



Offset Other State Spending

- Using revenues to offset other state spending could free up state funds to be used for other legislative priorities.
- For example, DGS is requesting a total of \$15.4 million in General Fund and special funds for water conservation projects in state buildings. It may be appropriate to use cap-and-trade revenue to fund these activities.
- The total amount of state expenditures that could be legally used to offset state General Fund spending is unclear, but the amount is likely small relative to the amount of revenue. In 2012, our office found only a handful of programs—totaling around \$100 million—that could potentially meet the legal restrictions discussed above.



Issues to Consider When Allocating Cap-and-Trade Funds *(Continued)*

- The Legislature may wish to consider using funds to offset existing special fund costs in programs, such as programs that promote energy, fuels, and transportation technologies. For example, it could use the funds to offset costs in the Electric Program Investment Charge program, which could reduce the amount of surcharges paid by investor-owned utility customers.