
EASY COME, EASY GO: A GUIDE TO CALIFORNIA CAP-AND-TRADE SPENDING

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INTRODUCTION

*[It] is just sitting there. We need to do something to get a proposal on the table and get the money out the door as soon as possible.*¹

—Assemblyman Jimmy Gomez (D-Los Angeles), Chair,
California State Assembly Committee on Appropriations

At the time of this writing, over \$1.4 billion of unallocated polluter regulatory fees collect dust in a special government bank account as California agencies labor to figure out how to spend it,² or more accurately, how to spend it *fast enough*. While state agency pockets smolder with anticipation, one inconvenience stands in their way: the cash must be used for programs or developments that reduce greenhouse gas (“GHG”) emissions.³ Thus, as lawmakers toil through the night to engineer new and creative spending proposals—ink dripping from the gold-embroidered parchment—the words “emission reductions” continue to get lost between nouns, verbs, exclamations points, and dollar signs.

Simply put, putting a price on carbon emissions has never been more lucrative for the State of California. Polluter fees not only fund the State’s climate change agenda, but also serve as the fiscal linchpin of the Governor’s statewide budgetary plan, from affordable housing development subsidies to the State’s herculean \$64 billion bullet-train

1. Chris Megerian, *California Lawmaker Wants \$1.4 Billion in Polluter Fees That Are ‘Just Sitting There’ Put to Work*, L.A. TIMES (Dec. 16, 2015, 2:40 PM), <http://www.latimes.com/politics/la-pol-sac-cap-and-trade-poor-families-20151216-story.html>.

2. *Id.* (“How to spend the money . . . [is] such a source of contention that Gov. Jerry Brown and top Democratic lawmakers decided to put the question off until later . . . [But the California State Assembly Committee on Appropriations] wants new legislation to spend the cash in the coming months, rather than waiting for another state budget to be finished next summer.”). See also Anne C. Mulkern, *\$2.2B in Cap-and-Trade Funds Begins Flowing, Boosting Rail, Housing, Clean Cars*, E&E NEWS: CLIMATEWIRE (Aug. 25, 2015), www.eenews.net/stories/1060023868.

3. See Megerian, *supra* note 1.

project.⁴ California has never been a state fearful of taking controversial positions on private property rights and protecting the public welfare,⁵ but with cap-and-trade, the entire world is watching.

California is the twelfth largest GHG producer in the world and the original American cap-and-trade pioneer.⁶ On January 1, 2013, the state implemented the most complex market-driven environmental regulatory scheme of its kind ever put into action.⁷ California's cap-and-trade program was designed to be a model which not only other states in the western United States could follow, but one that could eventually be replicated in developed economies across the world in the global movement to reverse centuries of unrestrained GHG pollution.⁸ As a bona fide experimental prototype, the importance of getting the system right cannot be overstated. However, as a concept-in-progress that regulates the sixth largest economy in the world⁹—greater than the likes of Italy, Russia, and India—understanding its contours and evolving mandates could not be more important to the businesses and industry practitioners that are subject to its control. As such, this Note will analyze the practical components of the cap-and-trade program, assess the potential legal risks of current spending trends, and ultimately recommend additional, apt, and effective appropriation vehicles for cap-and-trade revenue.

A. THE RISK OF LEGAL AND ECONOMIC UNCERTAINTY

The cap-and-trade system is California's fundamental device for

4. Chris Megerian & Ralph Vartabedian, *California's Cap-and-Trade Program Faces Daunting Hurdles to Avoid Collapse*, L.A. TIMES (June 14, 2016, 12:05 AM), <http://www.latimes.com/politics/la-pol-sac-climate-change-challenges-20160614-snap-story.html>.

5. See *Nollan v. Cal. Coastal Comm'n*, 483 U.S. 825, 839 (1987) (finding that the California Coastal Commission could not impose a permit condition as an exercise of its land-use powers and noting that this holding is "consistent with the approach taken by every other court that has considered the question, with the exception of the California state courts.").

6. California's 1993 Regional Clean Air Incentives Market was the first cap-and-trade program in the United States. See *An Overview of the Regional Clean Air Incentives Market (RECLAIM) 1* (EPA, Staff Paper, Aug. 14, 2006), <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.187.7379&rep=rep1&type=pdf>.

7. Jeanne-Phillipe Brisson, *Outstanding Design Flows in California's Cap-and-Trade Program 1* (Latham & Watkins, Client Alert 1751, Oct. 16, 2014); see also CAL. ENERGY COMM'N & CAL. PUB. UTILS. COMM'N, PROPOSED FINAL OPINION SUMMARY ON GREENHOUSE GAS REGULATORY STRATEGIES 2–8 (2008), <http://www.energy.ca.gov/2008publications/CEC-100-2008-004/CEC-100-2008-004.PDF> (providing background on the proposed regulatory scheme).

8. See W. CLIMATE INITIATIVE, DESIGN FOR THE WCI REGIONAL PROGRAM 2 (2010); Eleanor Gilbert, *What Role Can CEQA Play in Reaching GHG Emissions Reductions Goals Set Forth in AB 32—An Analysis of CEQA, AB 32 and Recommendations for CEQA Reform 14* (May 16, 2014) (unpublished M.P.S. project, University of San Francisco), <http://repository.usfca.edu/cgi/viewcontent.cgi?article=1018&context=capstone>.

9. *California's Economy is Bigger Than All but Five Nations, World Bank Data Says*, MERCURY NEWS (Aug. 11, 2016, 10:47 PM), <http://www.mercurynews.com/2016/07/05/californias-economy-is-bigger-than-all-but-five-nations-world-bank-data-says/>.

implementing Assembly Bill 32, the 2006 Global Warming Solutions Act (“AB 32”), the state mandate addressing global climate change.¹⁰ Enacted pursuant to an executive order issued by then Governor Arnold Schwarzenegger, AB 32 requires California to reduce greenhouse gas emissions to 1990 levels by 2020,¹¹ by adopting rules and regulations to achieve “the maximum technologically feasible, and cost-effective greenhouse gas emissions reductions.”¹² The bill expressly authorizes the use of “market-based compliance mechanisms.”¹³

In short, cap-and-trade is a market-driven regulatory scheme where the state sets limits on, or “caps” industry emissions, and requires polluters to hold permits, or “allowances” for every ton of carbon they emit.¹⁴ These allowances can be obtained by polluters via state-held quarterly auctions, by trading with other polluters, or by grant from the state. Revenues received by the state in exchange for these allowances are then to be appropriated or reinvested in programs established by AB 32 that further function to reduce GHG emissions. The program aims to cover more than 85 percent of all statewide emissions.¹⁵

AB 32 was drafted within the context of statewide concerns that the effects of global climate change posed grave threats to California’s economic sustainability, public health, and natural resources.¹⁶ The law designates the California Air Resources Board (“ARB”) as the state agency charged with designing regulations, coordinating with other government entities, and the overall execution of achieving the lofty state emission reduction targets.¹⁷

To monitor polluter emissions, ARB chose to follow the standards already in place pursuant to the California Environmental Quality Act (“CEQA”).¹⁸ However, despite decades of effort by agencies into uniformly measuring the weight, appearance, odor, and other

10. KENNETH A. MANASTAR & DANIEL P. SELMI, 2 STATE ENVIRONMENTAL LAW § 22:6 (2016).

11. CAL. HEALTH & SAFETY CODE § 38550–51 (West 2017); Cal. Exec. Order No. S-3-05 (June 1, 2005), <https://www.gov.ca.gov/news.php?id=1861> (requiring a further 80 percent reduction by 2050); MANASTAR & SELMI, *supra* note 10.

12. HEALTH & SAFETY § 38566.

13. HEALTH & SAFETY § 38570.

14. Thomas Henry et al., *California’s Cap and Trade Program Under AB 32—A Primer*, STOEL RIVES (Dec. 2012), https://www.stoel.com/getattachment/Legal-Insights/Article/California-s-Cap-and-Trade-Program-under-AB-32-a/CA_Cap_and_Trade_Program_Under_AB32.PDF.

15. *Overview of ARB Emissions Trading Program*, CAL. AIR RES. BD. (Feb. 9, 2015), https://www.arb.ca.gov/cc/capandtrade/guidance/cap_trade_overview.pdf.

16. HEALTH & SAFETY § 38501.

17. *See* HEALTH & SAFETY § 38510.

18. *See, e.g.*, Phillips 66 Los Angeles Refinery Carson Plant—Crude Oil Storage Capacity Project, South Coast Air Quality Mgmt. Dist. No. 2013091029 (Dec. 2014) (final neg. declaration) § 1.2.

characteristics of carbon and carbon equivalent emissions from pollution sources,¹⁹ comprehensive evaluation metrics remain elusive and controversial.²⁰ Compounding this systemic confusion, any uniform standards for measuring emission *reduction benefits* resulting from reinvested cap-and-trade revenues are by comparison virtually nonexistent, as each individual program is tasked with developing its own tracking methods and performance formulas. As the California Legislative Analyst's Office found in its 2014–2015 report on cap-and-trade expenditures:

[T]here is significant uncertainty regarding the degree to which each investment proposed for funding will achieve GHG reductions. This uncertainty is the result of several factors, including there being only limited data and analysis provided by the administration, as well as the fact that the level of emission reductions achieved would depend on the specific projects funded by departments. Consequently, it is very difficult for the Legislature to have assurance that the specific package of programs proposed by the administration would achieve the greatest reduction per dollar invested possible, or whether a different set of programs might yield better outcomes in a more cost-effective manner.²¹

As evidenced by decades of CEQA challenges, non-uniformity in standards and metrics leads to legal risk (for both private practitioners *and* public agencies), systemic inefficiency, and ultimately infuses the entire regulatory program with instability. With a market-based system, one needs to look no further than the carbon-permit price crash in early 2016 to understand that stability anchors such a system's vitality and long-term viability.²²

As funding increases for existing programs and expands to new ones, the rampancy of potential waste and unnecessary risk continues to grow. To reduce the cap-and-trade program's exposure to the challenges from opponents and to best achieve the goals of AB 32, California lawmakers

19. See *id.* § 2.5 (identifying environmental factors possibly affected by a given project).

20. See, e.g., *Ctr. for Biological Diversity v. Dep't of Fish & Wildlife*, 169 Cal. Rptr. 3d 413, 424–25 (Ct. App. 2015), *rev'd* 62 Cal. 4th 2014 (2015) (listing the causes of action in a challenge to environmental impact report certification); see also Alexander G. Crockett, *Addressing the Significance of Greenhouse Gas Emissions Under CEQA: California's Search for Regulatory Certainty in an Uncertain World*, 4 GOLDEN GATE U. ENVTL. L.J. 203, 209 (2011) (“[M]any have looked to California’s regulatory agencies for direction. . . . The agencies differ in their individual methodologies for addressing the significance of greenhouse gas emissions . . .”).

21. MAC TAYLOR, LEGIS. ANALYST’S OFF., THE 2014–15 BUDGET: CAP-AND-TRADE AUCTION REVENUE EXPENDITURE PLAN 1 (2014), <http://www.lao.ca.gov/reports/2014/budget/cap-and-trade/auction-revenue-expenditure-022414.pdf>.

22. Dan Walters, *California Carbon Emission Auction Proceeds Fall Short*, SACRAMENTO BEE (May 25, 2016, 4:34 PM), <http://sacbee.com/6ps4> (noting that the results of the March 2016 quarterly auction “revealed that instead of the \$500-plus million expected from the sale of state-owned allowances, the state [only received] \$10 million, less than 2 percent.”); Dale Kasler, *California's Cap-and-Trade Carbon Program Sputters Again*, SACRAMENTO BEE (Aug. 23, 2016, 12:16 PM), <http://sacbee.com/7d3X>.

will need to commission the production of systematic and scalable standards to measure the beneficial effects of mitigation measures funded by auction proceeds, sooner rather than later.

B. THE GGRF AND AB 32 INVESTMENTS

Cap-and-trade sets a legally enforceable limit on the amount of GHG or CO₂ equivalent businesses can emit, requiring those that release more than 25,000 metric tons annually to buy or trade for allowances equal to the amount of excess pollution beyond the threshold.²³ Each year, the total number of allowances in circulation—the emissions “cap”—reduces by 3 percent, seamlessly pitting polluters against each other for the reduced supply of permits while maintaining revenue flow into state coffers.²⁴ State proceeds from allowance auctions are then deposited in the Greenhouse Gas Reduction Fund (“GGRF”) for subsequent appropriation.²⁵ The State’s first two appropriation budgets, in fiscal years 2013–2014 and 2014–15, totaled over \$1 billion.²⁶

In January 2015, the program expanded its reach twofold by including the motor fuel sector and other producers of “downstream fuels,”²⁷ which account for an estimated 40 percent of California’s carbon emissions.²⁸ Notably, fuel producers operating in the state were forced to account for *all* consumer fuel sales in California, a number estimated to be around seventeen billion gallons per year.²⁹

For the 2015–2016 fiscal year, ARB has already budgeted over \$2.2 billion in GGRF distributions to state agencies and programs largely focused on reducing GHG emissions.³⁰ Programs designed to reduce individual vehicle transportation and implementing long-term sustainable

23. Jen Kinney, *Connecting California’s Climate Change Fight to Affordable Housing*, NEXT CITY (Mar. 3, 2016), <https://nextcity.org/daily/entry/california-cap-and-trade-revenue-benefits-affordable-development>.

24. *Information for Entities That Take Delivery of Fuel for Fuels Phased into the Cap-and-Trade Program Beginning on January 1, 2015*, CAL. AIR RES. BD. https://www.arb.ca.gov/cc/capandtrade/guidance/faq_fuel_purchasers.pdf; see also JEFFREY RABIN ET AL., LUSKIN CTR. FOR INNOVATION, A GUIDE TO GAS REDUCTION FUND PROGRAM DESIGNS, EXPENDITURES, AND BENEFITS FOR DISADVANTAGED COMMUNITIES 5 (2015), <http://innovation.luskin.ucla.edu/sites/default/files/Final%20081915.pdf>.

25. Kinney, *supra* note 23.

26. *Auction Proceeds Budget Appropriations*, CAL. AIR RES. BD. (Feb. 27, 2017), <https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/budgetappropriations.htm>.

27. Brisson, *supra* note 7.

28. Christine Mai-Duc, *More Than \$1 Billion in Cap-and-Trade Funds Unspent as Budget Negotiations Begin Anew*, L.A. TIMES (Jan. 29, 2016, 12:05 AM), <http://fw.to/UQfIBTB>.

29. Anne C. Mulkern, *Gas Stations to Slap Cap-and-Trade ‘Cost’ Labels on Pumps*, E&E NEWS (July 1, 2016), <http://www.eenews.net/stories/1060039717>.

30. *Auction Proceeds Funded Programs and Events*, CAL. AIR RES. BD., <http://www.arb.ca.gov/cc/capandtrade/auctionproceeds/ggrfprogrampage.htm> (last visited Apr. 7, 2017).

development plans are slated to receive the majority of these funds.³¹ High-speed rail, for example, receives over 25 percent of the GGRF funds each year, with another 15 percent directed to inner-city rail programs and other low-carbon transit infrastructure.³²

By developing sustainable community plans, Governor Schwarzenegger predicted the creation of “environmentally-friendly communities, more sustainable developments, less time people spend in their cars, more alternative transportation options and neighborhoods we can safely and proudly pass on to future generations.”³³ As of 2016, over \$150 million from the GGRF has been utilized to build affordable, transit-oriented development.³⁴ A 2014 report estimated that developing 15,000 such units could prevent 105,000,000 miles of vehicle travel every year. As a result of “taking 140,000 cars off the road for one year,” ARB’s Strategic Growth Council projected that an additional 723,286 metric tons of GHG were avoided in 2015.³⁵

C. AFFORDABLE HOUSING AND SUSTAINABLE COMMUNITIES ACT

Although the overarching purpose of GGRF investments is the reduction of emissions, AB 32 also makes clear that, when possible, investments should be directed towards the creation of aforementioned sustainable developments and the support of disadvantaged communities in California.³⁶ The two concepts, urban planners and environmental scholars believe, go hand-in-hand, given that local governments “are central to the effort to reduce global warming.”³⁷ Under this view, by promulgating land planning norms that incentivize residential density and “reduce the number of vehicle miles traveled, encourage better site design, and [promote] more efficient buildings,” local governments can stabilize and reduce long-term GHG emissions.³⁸ For instance, in areas of moderate or high population densities, mixed use, pedestrian-oriented centers can reduce overall vehicle usage and traffic congestion by encouraging walking, biking, or the use of

31. *See id.*

32. *See id.*; *California Climate Investments from the Greenhouse Gas Reduction Fund*, CAL. AIR RES. BD. (Sept. 2016), https://www.arb.ca.gov/cc/capandtrade/auctionproceeds/final_expenditure_table_revised_10-6.pdf.

33. Steve Lawrence, *Schwarzenegger Signs Greenhouse-Gas Bill*, TAHOE DAILY TRIB. (Sept. 30, 2008), <http://www.tahodailytribune.com/news/schwarzenegger-signs-greenhouse-gas-bill>.

34. Kinney, *supra* note 23.

35. *Affordable Housing and Sustainable Communities Program*, CAL. STRATEGIC GROWTH COUNCIL 6 (Aug. 11, 2015), http://www.scag.ca.gov/programs/Documents/GGRF/CAGold_StrategicGrowthCouncil.pdf.

36. RABIN ET AL., *supra* note 24, at 8.

37. Edna Sussman, *Reshaping Municipal and County Laws to Foster Green Building, Energy Efficiency, and Renewable Energy*, 16 N.Y.U. ENVTL. L.J. 1, 3 (2008).

38. GEORGE LEFCOE, REAL ESTATE TRANSACTIONS, FINANCE, AND DEVELOPMENT 831 (6th ed. 2009).

public transit.³⁹ Consider New York City as compared to Los Angeles—despite hosting a larger population, New York City’s more densely packed compact buildings, smaller-than-average residences, and highly accessible public transportation systems keep the metropolis’s GHG emissions low.⁴⁰

As an outgrowth of this school of thought, the California legislature has appropriated over 70 percent of GGRF funds to investment in “Sustainable Communities and Clean Transportation,” comprised of low carbon transportation programs and the Strategic Growth Council (“SGC”)’s Affordable Housing and Sustainable Communities program (“AHSC”).⁴¹

Effective as of June 2014, the purpose of the AHSC is to “reduce greenhouse gas emissions through projects that implement land use, housing, transportation, and agricultural land preservation practices . . . and that support related and coordinated public policy objectives” such as “[r]educing air pollution,” “[i]mproving conditions in disadvantaged communities,” “[i]ncreasing transit ridership,” and “[i]mproving connectivity and accessibility to jobs, housing, and services.”⁴² Statutorily, the program is intended for the “implementation of sustainable communities strategies required by Chapter 728, Statutes of 2008 (SB 375), and to provide similar support to other areas with GHG reduction policies, but not subject to SB 375 requirements.”⁴³ In practice, this means that in the allocation of GGRF funds, projects that aid “disadvantaged communities” are given priority, as are plans that encourage public transit ridership, provide affordable housing within close proximity of transit stations, or promote infill development and the overall reduction in the number of vehicle miles traveled per prospective resident.⁴⁴

At its inception, the AHSC Program was created and capitalized with 20 percent of the GGRF’s annual proceeds, nearly \$130 million in 2014.⁴⁵ A hypothetical project satisfying this requirement could be one that “increas[es] accessibility of affordable housing, employment centers and key destinations via low-carbon transportation” options such as walking, biking, and transit.⁴⁶ Using the qualitative criteria set by ARB, an eligible

39. *Id.* at 832.

40. John R. Nolon & Jessica A. Bacher, *Zoning and Land Use Planning*, 36 REAL EST. L.J. 211, 212 (2007).

41. CAL. STATE BUDGET 2014–15 42 (2014), <http://www.ebudget.ca.gov/2014-15/pdf/Enacted/BudgetSummary/FullBudgetSummary.pdf>.

42. CAL. PUB. RES. CODE § 75210 (West 2017).

43. CAL. STATE BUDGET, *supra* note 41, at 43.

44. *Id.*

45. *See* CAL. HEALTH & SAFETY CODE § 39719 (West 2017).

46. Cal. Strategic Growth Council, Affordable Housing and Sustainable Communities Program 2015–2016 Guidelines § 101 (Dec. 17, 2015), http://sgc.ca.gov/pdf/ADOPTED_FINAL_15-16_AHSC_

project under this theory could be as simple as one “located within [half a] mile of High-Quality Transit”⁴⁷ or one that provides bus station “area improvements, including bus stop benches or shelters.”⁴⁸

D. THESIS AND ROADMAP

In 2015, state lawmakers introduced more than twenty spending proposals for cap-and-trade funds, many of which stretched the nexus between GGRF investments and actual GHG reductions to increasingly tenuous levels. This Note will provide a detailed overview of the mechanics of AB 32 cap-and-trade spending, assess weaknesses from both legal and economic perspectives, and advocate for California lawmakers to consider different approaches to GGRF appropriations. For practitioners and public agents, I hope to provide insight into the system’s pain points and suggest potential areas where stricter standards and greater uniformity are especially necessary. Finally, for policymakers, I will outline recommendations for investment measures that would conform with AB 32 goals as well as the realities of the legal limitations on spending cap-and-trade funds.

This Note will first explain the regulatory backdrop of AB 32 and ARB’s legislative imperative to reduce polluter emissions and distribute regulatory proceeds. To do so, the essential components of the Climate Change Scoping Plan will be examined, followed by a technical look at how the cap-and-trade allowance and offset systems function as well as how agencies track and monitor tangible progress. Next, I will illuminate the legal issues and common challenges of the cap-and-trade program, specifically reviewing past challenges and the risks associated with pending appropriation proposals drafted by the state legislature. I will also assess the lingering issue of economic inefficiency from multiple perspectives before finally exploring promising new areas of future fund allocations.

II. THE REGULATORY FRAMEWORK OF AB 32

A. BACKGROUND

In 2005, Governor Arnold Schwarzenegger issued Executive Order S-3-05, establishing greenhouse gas emissions reduction targets for California.⁴⁹ All programs developed under AB 32 collectively contribute

Guidelines_with_QM.pdf.

47. *Id.* at 9.

48. Cal. Strategic Growth Council, *AHCG: An Integrated Approach to Housing, Infrastructure, and GHG Reduction Strategies*, LEAGUE OF CAL. CITIES (Oct. 1, 2015), <https://www.cacities.org/Resources-Documents/Education-and-Events-Section/Annual-Conference/2015-handouts/Cap-and-Trade-What-Cities-Needs-to-Know-Joe>.

49. See Cal. Exec. Order No. S-3-05 (June 1, 2005), <https://www.gov.ca.gov/news.php?id=1861>.

to the necessary reductions needed and aim to cause a 15 percent reduction in total state GHG emissions compared to what levels would be in 2020 if nothing were done at all, referred to as the “business-as-usual” scenario.⁵⁰ Over time, the goals should “by 2010, reduce GHG emissions to 2000 levels; by 2020, reduce GHG emissions to 1990 levels; by 2050, reduce GHG emissions to 80 percent below 1990 levels.”⁵¹ These emissions limits are intended to work in concert with other environmental protection regulations and “continue reductions in emissions of greenhouse gases beyond 2020.”⁵²

Subsequently, the legislature enacted AB 32 and later the Sustainable Communities and Climate Protection Act of 2008,⁵³ also known as SB 375. In SB 375, the Legislature found automobiles and light trucks to be responsible for nearly 30 percent of the state’s greenhouse gas emissions, meaning the state’s emissions reductions goals cannot be achieved without an improved land use and transportation policy.⁵⁴ To address this issue, SB 375 directed ARB to develop regional greenhouse gas emission reduction targets for automobiles and light trucks for 2020 and 2035.⁵⁵ As a result, each “urbanized area with a population of more than 50,000 individuals” must adhere to a long-range transportation plan developed by a designated metropolitan planning organization and prepared every four years.⁵⁶

B. QUANTIFYING GHG EMISSIONS

GHG emissions are “typically expressed in metric tons, an international unit of measurement equivalent to approximately 2,200 pounds.” This uniform measurement makes it easier to communicate how various pollution sources coalesce as contributors to global climate change.⁵⁷ In regulatory schemes such as AB 32, GHG emissions are

50. Henry et al., *supra* note 14.

51. Cal. Exec. Order No. S-3-05 (June 1, 2005), <https://www.gov.ca.gov/new?php?id=1861>.

52. CAL. HEALTH & SAFETY CODE § 38551(b) (West 2017).

53. Sustainable Communities and Climate Protection Act of 2008, ch. 728, 2008 Cal. Stat. 5065 (codified as amended at CAL. GOV’T CODE §§ 14522, 65080, 65400, 65583–84, 65587–88 (West 2017); CAL. PUB. RES. CODE §§ 21061, 21159 (West 2017)).

54. *Id.* § 1(a).

55. See CAL. GOV’T CODE. § 65080(b)(2)(A) (West 2017); see also *Cleveland Nat’l Forest Found. v. San Diego Ass’n of Gov’ts*, 180 Cal. Rptr. 3d 548, 560 (Ct. App. 2014), *superseded by* 343 P.3d 903 (Cal. 2015).

56. CAL. GOV’T CODE. § 65080(a), (d) (West 2017); see also 23 U.S.C. § 134(b)(7) (defining “urbanized area” as “a geographic area with a population of 50,000 or more, as determined by the Bureau of the Census.”).

57. Joe Abraham, *What is One Million Metric Ton of Carbon Dioxide-Equivalent?*, SW. CLIMATE CHANGE NETWORK (June 2009), <http://www.southwestclimatechange.org/solutions/reducing-emissions/mmtco2-e>. To help put this number into perspective, “[o]ne metric ton of CO₂ is released to the atmosphere for every 103 gallons of gasoline used. Using a car that gets 25 miles to the gallon, that’s just a bit more than 2,500 miles—about two months of driving for many Americans.” *Id.*

generally expressed in *millions* of metric tons by the unit MMTCO₂e, which is ideal for tracking macro-level changes because it is “scaled up to an entire state or economic sector and reflect[s] emissions reduced over a period of time.”⁵⁸ CO₂ “equivalents” allow for the relative comparison of various GHGs based on their measureable ability to trap heat in the atmosphere, an important component of climate change mitigation because “some gases are more effective at warming the atmosphere than others because they trap heat more effectively and longer.”⁵⁹

AB 32 mandates statewide GHG emission reductions to 1990 levels by 2020.⁶⁰ To determine this number, ARB compiled an exhaustive inventory of California’s 1990 level emissions using a variety of data sources, including “inputs related to fuel combustion, industrial processes, and agricultural practices.”⁶¹ As a result of this research, ARB calculated that the state emitted 427 million metric tons of “carbon dioxide equivalent” that year.⁶²

Using predictions that the state’s emissions would reach 600 million metric tons by 2020, ARB deduced that behavior changes flowing from AB 32 would need to prevent the emission of 173 million tons of carbon dioxide equivalent by 2020.⁶³ Specifically, beginning in 2013, primary GHG-emitting sources, such as energy producers and “large stationary sources (e.g., refineries, cement production facilities, oil and gas production facilities, glass manufacturing facilities, and food processing plants), that emit more than 25,000 MTCO₂e per year” must comply with statutory GHG pollution thresholds under AB 32.⁶⁴

C. SCOPING PLAN

As required by AB 32, ARB and the California Climate Action Team developed a multi-year “Climate Change Scoping Plan” outlining the proposed approach to reducing GHGs and achieving the ultimate “maximum technologically feasible and cost-effective” means of reaching target emission reductions by 2020.⁶⁵

58. *Id.*

59. *Id.*

60. Gilbert, *supra* note 8, at 7 (“Setting the bar even higher is California’s Executive Order S-3-05, which requires an 80 percent reduction in GHGs from 1990 levels by 2050.”).

61. Press Release, Cal. Air Res. Bd., Air Board Passes Two Major Building Blocks in State’s Effort to Fight Global Warming (Dec. 6, 2007), <https://www.arb.ca.gov/newsrel/nr120607.htm>. (“By comparison, 200,000 passenger cars driven for a full year produce about one million tons of carbon dioxide.”).

62. *Id.*

63. ENVTL. LAW INST., 3 LAW OF ENVIRONMENTAL PROTECTION § 24:94 (Scott E. Schang et al. eds, 2016).

64. Henry et al., *supra* note 14.

65. CAL. AIR RES. BD., CLIMATE CHANGE PROPOSED SCOPING PLAN: A FRAMEWORK FOR CHANGE 73 (2008), <https://www.arb.ca.gov/cc/scopingplan/document/psp.pdf>.

The plan included not only a number of regulatory schemes and market-driven programs,⁶⁶ but also outlined potential solutions and recommendations for local governments, collectively aiming to “preserve the natural environment, create jobs, reduce our dependence on fossil fuels, stimulate renewables, and improve public health in California.”⁶⁷ Given the scale and gravity of the plan’s potential impact, over 40,000 people commented on its first draft, with the State holding several workshops and webcasts in an attempt to incorporate the perspectives of stakeholders from business sectors throughout the State.⁶⁸ Formally implemented by the ARB in 2008, the plan must be updated and reapproved every five years.⁶⁹

D. THE ARB CAP-AND-TRADE PROGRAM

Collaborating with a regional GHG reduction coalition of governments known as the Western Climate Initiative (“WCI”),⁷⁰ the ARB and the California legislature hoped to create a design that could eventually be emulated, not only in other western states in the United States, but in other nations in the global effort to reverse more than a century of unregulated GHG emissions.⁷¹ Practically, the program was designed to be flexible and driven by market mechanics, thereby encouraging individual GHG producers to “develop their own, cost-effective strategies for compliance.”⁷²

The cap-and-trade program applies limitations to specific industries, known as “covered sectors,” which account for 85 percent of California’s GHG emissions.⁷³ As of 2012, the program covered nearly 350 businesses, representing 600 facilities.⁷⁴ By design, the cap decreases by about 3 percent each year throughout the program’s duration to steadily decrease overall emissions.⁷⁵ In the initial 2008 Scoping Plan, California businesses were categorized into four sectors: transportation, electricity, commercial and residential, and industry.⁷⁶ Apparent from the preliminary cap

66. See generally *id.* (providing a comprehensive list of these recommended actions and programs).

67. Gilbert, *supra* note 8, at 13.

68. *Id.*

69. CAL. AIR RES. BD., *supra* note 65, at 107.

70. See W. CLIMATE INITIATIVE, CLEAN ENERGY: CREATING JOBS, PROTECTING THE ENVIRONMENT (2010), [www.westernclimateinitiative.org/document-archives/general/WCI-Brochure-\(May-2010\)](http://www.westernclimateinitiative.org/document-archives/general/WCI-Brochure-(May-2010)). California, Utah, Oregon, Arizona, Washington, Montana, New Mexico, and the Canadian Provinces of British Columbia, Manitoba, Ontario, and Quebec make up the WCI. *Id.* at 3.

71. *Id.* at 2; Gilbert, *supra* note 8, at 14.

72. Gilbert, *supra* note 8, at 15.

73. ENVTL. LAW INST., *supra* note 63, at § 24:97.

74. Henry et al., *supra* note 14.

75. *Id.*

76. See CAL. AIR RES. BD., *supra* note 65, at 32.

threshold numbers, the transportation sector was immediately identified as the source of the majority of GHG emissions in California.⁷⁷ As such, fuel producers and importers were subject to cap-and-trade compliance at the start of 2015, and were “required to obtain allowances or offsets for [GHG] emissions produced,” including consumer consumption of their fuel.⁷⁸ Transportation remains as a major focus of the program, and ARB continues to use its incentive devices of allowances and offsets to encourage increased full efficiency or the construction of mixed-use urban development that decrease daily Vehicle Miles Traveled (“VMT”).⁷⁹

Covered sectors are restricted to specific GHG emissions limits, capped by static thresholds of emissions of MMTCO₂e. Covered entities are required to relinquish “one compliance instrument, i.e., a permit to emit 1 MTCO₂e . . . for each ton of GHG emissions they emit.”⁸⁰ These permits to emit are known as “allowances” and allow ARB to track and implement quantifiable emissions limits for covered sectors.⁸¹ Sold at quarterly auctions held by ARB, each allowance permits a holder to emit one MMTCO₂e and each allowance has a unique serial number.⁸² Outside of auctions, cap-and-trade market participants can acquire allowances by trading with each other or by free allocation by ARB “as a reward for early actions to incentivize behavior.”⁸³ This means that allowances can be granted to California agencies or local governments to be administered to eligible projects. For example, allowances could be rewarded to green developments that actively apply sustainable land use planning “such as dense, infill development.”⁸⁴

Additionally, the transferability of these permits allows for “flexibility” in reducing GHG emissions and “yields an enduring price signal for GHG emissions across the economy,” providing “incentives for the market to find new ways to reduce emissions.”⁸⁵ In order to hold and trade allowances, covered entities must be registered with ARB and comply with various annual emissions reports and disclosures.⁸⁶

Noncovered sectors can participate in cap-and-trade through devices known as “offsets.” Offsets are verifiable reductions of emissions from

77. *See id.*

78. Tom Henry, *How to Fix Your GHG Analysis After the California Supreme Court’s Newhall Ranch Decision*, CAL. ENVTL. LAW (Dec. 3, 2015), <http://www.californiaenvironmentallawblog.com/ceqa/how-to-fix-your-ghg-analysis-after-the-california-supreme-courts-newhall-ranch-decision/>.

79. *See* CAL. AIR RES. BD., *supra* note 65, at 30, 53, 57.

80. Henry et al., *supra* note 14.

81. Gilbert, *supra* note 8, at 8.

82. Henry et al., *supra* note 14.

83. Gilbert, *supra* note 8, at 16.

84. *Id.*

85. CAL. AIR RES. BD., *supra* note 65, at 18.

86. *See* Henry et al., *supra* note 14.

entities not covered by an emissions cap, “whose ownership can be transferred to regulated entities looking for low-cost emissions reduction options.”⁸⁷ Individual projects can generate offsets by achieving some form of reduction of emissions “from activities not otherwise regulated, covered under an emissions cap, or resulting from government incentives.”⁸⁸ In other words, like a consumer considering potential credit card bonuses or points, developers can quantify the extent to which certain operational choices might reduce GHG emissions and provide equivalent offset value that can then be traded to regulated polluters.⁸⁹ All compliance instruments, whether emission allowances or offset credits, “exist solely within an ARB centralized allowance tracking system.”⁹⁰

As a component of AB 32, any GHG “reductions” in the cap-and-trade system used for compliance purposes must fit within the criteria that they be “real, permanent, quantifiable, verifiable, enforceable, *and* additional” (“AB 32 Real Standard”).⁹¹ In plain terms, this set of criteria serves as the guiding principle behind agency and judicial analyses of challenges as to whether or not a purported “reduction” can count as a reduction under AB 32 for the purposes of receiving some other reward for compliance.

As such, offset projects must be quantified using “rigorous measurement and enforcement protocols” in determining whether the reductions are not only real and verifiable, but also additional, meaning “in excess of what would have likely occurred without the project.”⁹² This issue of additionality has become a major point of contention in establishing the legitimacy of offset projects,⁹³ especially when opponents challenge whether the AB 32 Real Standard is stringent enough to ensure offsets serve their intended purposes.⁹⁴

Offset sources include ARB-approved projects and sector-based offsets, which can be freely traded or sold to other participants.⁹⁵ Furthermore, because noncapped polluters can have GHG reductions required by CEQA converted into offset value, this system serves as the

87. Gilbert, *supra* note 8, at 16.

88. CAL. AIR RES. BD., *supra* note 65, at 36.

89. *Id.*

90. Henry et al., *supra* note 14.

91. Gilbert, *supra* note 8, at 15 (emphasis added) (explaining CAL. HEALTH & SAFETY CODE § 38562(d)(1)–(2)).

92. *Id.* at 16.

93. *Id.*; *see also, e.g.*, Cal. Bldg. Indus. Ass’n v. City of San Jose, 351 P.3d 974 (Cal. 2015).

94. *See* Ass’n of Irrigated Residents v. Cal. Air Res. Bd., 143 Cal. Rptr. 3d 65, 78–79 (Ct. App. 2012).

95. Henry et al., *supra* note 14 (noting urban forest developments as an example of an approved offset).

basis of the interplay between CEQA and AB 32.⁹⁶ For noncapped polluters, offsets can be used to meet up to 8 percent of the total compliance requirements.⁹⁷

E. MANDATORY REPORTING AND VERIFICATION OF STATEWIDE GHG EMISSIONS

AB 32 mandates the ARB to adopt regulations requiring “reporting and verification of statewide greenhouse gas emissions.”⁹⁸ GHG reporting regulations necessitate annual reporting from the “largest facilities in the state, accounting for 94 percent of greenhouse gas emissions” from California’s industrial and stationary pollution sources.⁹⁹ In this process, emissions calculations rely on “best available emissions data,” subject to periodic third-party verification.¹⁰⁰

The cap-and-trade program uses data collected through the Mandatory Reporting of Greenhouse Gas Emissions Regulation (“MRR”) in order to identify significant sources of GHG emissions in California.¹⁰¹ Originally adopted in 2007, the MRR was updated in 2011 to meet the needs of the cap-and-trade program and “harmonize with federal EPA mandatory reporting requirements.”¹⁰² The MRR requires polluters to report their annual GHG emissions via the California Electronic Greenhouse Gas Reporting Tool.¹⁰³ This comprehensive online reporting platform allows facility operators to create accounts within which they can “assign staff, consultants, and verifiers who will have varying levels of access to enter, modify, or view the facility data.”¹⁰⁴

Participants submitting GHG emissions reports first must have the data verified by independent third parties that have been trained and accredited by ARB and hired by the operator.¹⁰⁵ Verification helps to ensure “(1) completeness, accuracy, and consistency in the reported GHG data, and (2) the methods specified in the Regulations have been correctly applied.”¹⁰⁶ For offsets from noncapped projects, verification requirements ensure that only GHG reductions that fit the AB 32 Real Standard of

96. Gilbert, *supra* note 8, at 37.

97. Henry et al., *supra* note 14.

98. CAL. HEALTH & SAFETY CODE § 38530 (West 2017).

99. Cal. Air Res. Bd., *supra* note 61.

100. *Id.*

101. CAL. AIR. RES. BD., CAP-AND-TRADE REGULATION INSTRUCTIONAL GUIDANCE 1 (2012), <http://www.arb.ca.gov/cc/capandtrade/guidance/chapter1.pdf>.

102. Henry et al., *supra* note 14.

103. See *ARB’s Electronic Greenhouse Gas Reporting Tool*, CAL. AIR RES. BD., <https://ssl.arb.ca.gov/Cal-eGGRT/login.do> (last visited Apr. 7, 2017).

104. Henry et al., *supra* note 14.

105. *Id.*

106. *Id.*

analysis are issued ARB offset credit.¹⁰⁷

In 2016, AB 32's GHG reporting, verification, and tracking processes were followed as reliable—if not impervious—standards of procedure for measuring GHG emission thresholds and impacts in EIR analyses mandated under CEQA.¹⁰⁸ In fact, following the adoption of AB 32, the California Attorney General's Office began “aggressively reviewing CEQA documents prepared by lead agencies and submitting comments to the lead agencies if the documents [had] not evaluated GHG emission impacts from their projects.”¹⁰⁹

When spending GGRF monies on programs that reduce GHG emissions, verification requirements must follow the AB 32 Real Standard. In practice, this means that both the direct and indirect beneficial impacts caused by programs such as the AHSC can be incorporated into overall reduction reporting. The AHSC's calculation methodology is explained in detail later in Part III.

F. REGIONAL TRANSPORTATION GHG TARGETS

Pursuant to SB 375,¹¹⁰ advancements in fuel efficiency alone will not be sufficient to reach AB 32 GHG reduction targets for the transportation sector, but rather it will be necessary to “achiev[e] significant additional reductions of greenhouse gas emissions from changed land use patterns and improved transportation.”¹¹¹ Thus, ARB is required to work with localized planning organizations to develop transit priorities known as regional transportation plans (“RTPs”) for urban centers across the state as well as sustainable communities strategies (“SCS”) in order to meet specified GHG reduction targets for each designated region. These components combine in practice under SB 375 to integrate regional transportation planning with housing needs in order to ultimately reduce personal vehicle trips and overall regional VMT. For example, a University of California, Berkeley study predicted a 0.4% to 7.7% reduction in VMT over the next ten years in areas that integrate improved land use patterns and public transit policies.¹¹²

107. *Id.*

108. James L. Arnone et al., Good News and Bad News: Legal Impediments to Development, Presentation at USC Gould School of Law 2016 Real Estate Law and Business Forum (March 10, 2016) (presentation available at USC Gould School of Law).

109. *Greenhouse Gases (GHG) CEQA Significance Thresholds*, S. COAST AIR QUALITY MGMT. DIST., <http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ghg-significance-thresholds> (last visited Apr. 8, 2017).

110. *See supra* Part I.A.

111. CAL. AIR RES. BD., *supra* note 65, at 47.

112. Caroline Rodier, A Review of the International Modeling Literature: Transit, Land Use, and Auto Pricing Strategies to Reduce Vehicle Miles Traveled and Greenhouse Gas Emissions 15 (Aug. 1,

II. SPENDING AUCTION PROCEEDS: LEGAL RISKS

*“Given the scope of cap-and-trade and the amount of revenue that the auctions are likely to generate, it is reasonable to expect litigation over the coming years regarding how these revenues can be used.”*¹¹³

—Mac Taylor, California Legislative Analyst’s Office, *The 2014–15 Budget: Cap-and-Trade Auction Revenue Expenditure Plan*

California’s cap-and-trade program presents unique legal issues, many of which are of first impression to the courts. In simple terms, assessing *non-tax*, regulatory “fees” on private sector industries imposes legal constraints on the scope within which that same money can be spent by the government and for what purposes it may be allocated.¹¹⁴ The greatest areas of contention arise within this context; while many admire the program as an innovative two-pronged mitigation measure against rampant carbon pollution, others focus on the idea that “revenue[s] collected and spent from . . . auction[s] are paid directly by large California employers and indirectly by California consumers and businesses.”¹¹⁵ Still others see it as a purely partisan debate.¹¹⁶ Opponents of cap-and-trade are ready and willing to fight its existence at every level, from the halls of Sacramento to the courtrooms of modest townships across the state.

Possessing an understanding of the legal basis for the cap-and-trade system, the parameters within which GGRF funds can be distributed, and the level of risk inherent in existing and future budgetary proposals is fundamental, both for practitioners who advocate for expansion and opponents who press for dissolution. In this section I will explain the boundaries of ARB’s authority in spending auction proceeds, the sources of the program’s legal challenges, and finally, the risks and potential consequences of overstepping permissible uses of GGRF monies.

A. CAP-AND-TRADE FEES AS ILLEGAL “TAXES”

The California Supreme Court developed the test for determining

2008) (unpublished submission to Transp. Research Bd.), https://www.arb.ca.gov/planning/tsaq/docs/rodier_8-1-08_trb_paper.pdf. See also Jeff Weir & Annamaria Mora, *Land Use and Local Initiatives* 14–15, CAL. AIR RES. BD. (Dec. 14, 2007), https://www.arb.ca.gov/cc/scopingplan/meetings/12_14_07/12_14slides/landuselocalaction_sector.pdf (finding a consensus among California transportation, energy, and urban planning commissions that a “Fundamental Change” was necessary in order to reduce VMTs).

113. TAYLOR, *supra* note 21, at 4.

114. *Id.*

115. CAP & TRADE SPENDING PROPOSALS, CAL. TAXPAYERS ASS’N (2015), http://www.caltax.org/homepage/Cap_Trade_Spending_Report2015.pdf.

116. See Marisa Lagos, *Democrats Have Lots of Ideas on Spending Cap-and-Trade Cash*, KQED NEWS (Sept. 1, 2015), <http://www2.kqed.org/news/2015/09/01/democrats-have-lots-of-ideas-on-spending-cap-and-trade-cash>.

whether a regulatory fee is a valid exercise of executive power or constructively a substantive tax in a 1997 case, *Sinclair Paint Co. v. State Board of Equalization*.¹¹⁷ Understanding *Sinclair*'s ruling requires an understanding of the context leading up to the action. In 1978, nearly two-thirds of California voters passed Proposition 13, requiring any taxes or measures "enacted for the purpose of increasing state revenues to be approved by a two-thirds vote of each house of the legislature."¹¹⁸ In 1991, California enacted the Childhood Lead Poisoning Prevention Act by a vote of a simple majority of the legislature.¹¹⁹ The Act allowed for fees to be levied against lead manufacturers and allocated the money to prevention and support programs for children poisoned by lead.¹²⁰

In *Sinclair*, one such manufacturer, a paint producer, challenged for a refund of assessments it had paid pursuant to the Act, arguing that the fees were in legal effect "taxes" and thus invalid because the Act had been not been approved by a two-thirds legislative majority.¹²¹ The California Supreme Court disagreed, overturning the trial court and Court of Appeal decisions in favor of the manufacturer, concluding that the fees were "bona fide regulatory fees" because they operated to "mitigate the actual or anticipated adverse effects of the fee payers' operations," and the amount of the fees bore a reasonable relationship to those adverse effects based on each manufacturer's "market share" of responsibility for environmental lead contamination.¹²²

The Court reasoned that the assessments were regulatory in nature because they impacted the future conduct of the manufacturers and, importantly, that the State's general police powers encompass the imposition of industrywide fees for the purpose of mitigating or reversing adverse societal effects created by such industry.¹²³ The fee proceeds were directly appropriated to prevention and support programs for children poisoned by lead, not a general fund or other public purpose.¹²⁴

117. *Sinclair Paint Co. v. State Bd. of Equalization*, 937 P.2d 1350, 1353–58 (Cal. 1997).

118. *What is Proposition 13?*, CAL. TAX DATA, <http://www.californiataxdata.com/pdf/Prop13.pdf> (last visited Apr. 7, 2017). In 2010, voters approved Proposition 26, an initiated constitutional amendment and broader version of Proposition 13. Some believe it may be possible for the supermajority rule to "be applied retroactively to invalidate the fees." Mary Holing, *It's A Question of Proportionality: Proposition 26's Impacts on Funding for the Global Warming Solutions Act of 2006*, 18 HASTINGS W.-NW. J. ENVTL. L. & POL'Y 39, 40 (2012). Holing also discusses "whether any of the exceptions to Proposition 26 apply to AB 32 and how the California courts might interpret fees necessary to compensate the state for benefits conferred on industry alone." *Id.*

119. Childhood Lead Poisoning Prevention Act of 1991, ch. 799, 1991 Cal. Stats. 3588 (codified as amended at CAL. HEALTH & SAFETY CODE §§ 105275–310 (West 2017)); *Sinclair*, 937 P.2d at 1351.

120. *Sinclair*, 937 P.2d at 1351–52.

121. *Id.* at 1351.

122. *Id.*

123. *Id.* at 1356.

124. *Id.*

Furthermore, the Court stated that a regulatory assessment does not become a tax where it “do[es] not exceed the reasonable cost of providing the services . . . for which the fee is charged.”¹²⁵ In fact, the Court explained, a tax “has no fixed meaning,” and the distinction between taxes and fees is often “blurred,” susceptible of taking on different meanings in different contexts.¹²⁶

AB 32 was passed by a simple majority of the California Legislature, and thus the distinction that cap-and-trade fees are regulatory in nature, rather than a tax, is integral to its legal validity. *Sinclair* thoroughly articulated the different ways in which such a distinction between regulatory fees and taxes be by explaining that the plaintiff may have prevailed with a showing that “no clear nexus exists between its products and childhood lead poisoning,” or by showing that the charges were greater than the reasonable cost of the services they funded, that the fees “bore no reasonable relationship to” the social or economic burdens caused by the plaintiff’s actions, or that “the fees were levied for unrelated revenue purposes.”¹²⁷

In 2012, the first legitimate challenge to cap-and-trade along these lines came from a lawsuit by the California Chamber of Commerce, which claimed that cap-and-trade auction revenues constituted illegal tax revenue.¹²⁸ However, the trial court responded that while the “charges” from the auction system resembled characteristics of both a tax and a fee, “on balance, the fees constituted legitimate regulatory fees.”¹²⁹

B. DEFENDING SPENDING MEASURES AGAINST SPECIAL TAX JUDGMENTS

Statutory authority for the spending of cap-and-trade revenue is codified in the California Code, under 17, section 95870.¹³⁰ In light of *Sinclair* and numerous challenges almost immediately after its enactment, the California Legislative Analyst’s Office (“LAO”) recommended the State take the position that cap-and-trade fees are mitigation fees for public burden imposed by polluters under a regulatory scheme and buttressed this view with case law.¹³¹ Ultimately, because regulatory programs cannot charge private industries solely for the purpose of raising revenue to be deposited in a general fund or to be used for general purposes,¹³² the act of

125. *Id.* at 1355.

126. *Id.* at 1353–54.

127. *Id.* at 1358.

128. See Opening Brief of Appellant the Nat’l Ass’n of Mfrs. at 19–32, *Cal. Chamber of Commerce v. Cal. Air Res. Bd.*, 2017 Cal. App. LEXIS 318 (2017) (Nos. C075930, C075954); TAYLOR, *supra* note 21, at 4.

129. TAYLOR, *supra* note 21, at 4.

130. CAL. CODE REGS. tit. 17, § 95870 (2017).

131. See TAYLOR, *supra* note 21, at 4.

132. *Nw. Energetic Servs., LLC v. Cal. Franchise Tax Bd.*, 71 Cal. Rptr. 3d 642, 650–51 (Ct.

proper spending presents its own need for analysis in light of legal challenges.

Even a “bona fide” regulatory charge can constitute a tax depending on the manner in and purposes for which it is spent.¹³³ In *Northwest Energetic Services, LLC v. California Franchise Tax Board*, the appellate court, in a nod to property takings doctrine, held that regulatory revenue must be spent in a manner that proportionately benefits those who pay the charge, determining on the other hand, that “[i]f revenue is the primary purpose and regulation is merely incidental, the imposition is a tax.”¹³⁴

In the same year, the same court demonstrated the application of this principle in holding a 9-1-1 “fee” assessed on telecommunications companies as a special tax in *Bay Area Cellular Telephone Co. v. City of Union City*.¹³⁵ The government had imposed a charge on telephone companies, with the revenue used to fund the city’s 9-1-1 emergency response system. The court opined that while the fee admittedly “‘defie[d] simple classification,’” it was a special tax because revenue was used to fund a program that broadly inured to the “benefit of the public as a whole” rather than those who exclusively paid the assessments, the charges were not based on any form of proportional “use” of the 9-1-1 system, and ultimately, the companies paying the fee did not receive any direct or specific benefit from financing the program nor was there any connection between the benefit recipients and the fees paid.¹³⁶

Despite the lack of a precise test or formulation, in light of *Sinclair* and principles from subsequent case law the LAO suggested in a 2015 report that “clear lessons” can educate practitioners and lawmakers when considering defenses to a challenger arguing for a “special tax” judgment.¹³⁷ According to a 2012 combined report by experts at the Emmett Center on Climate Change and the Environment at the University of California, Los Angeles School of Law, successful defenses against categorization as a “tax” should include a showing of the following:

- (1) a causal connection or nexus between the product regulated and its adverse effects;
- (2) that the total amount of money raised by the program is limited to the reasonable costs of the program, as defined by amounts

App. 2008).

133. *Id.* at 651.

134. *Id.* (quoting *United Bus. Comm’n. v. City of San Diego*, 154 Cal. Rptr. 263, 269 (Ct. App. 1979)).

135. *Bay Area Cellular Tel. Co. v. City of Union City*, 75 Cal. Rptr. 3d 839, 845 (2008).

136. *Id.* at 845–46.

137. CARA HOROWITZ ET AL., EMMETT CTR. ON CLIMATE CHANGE & THE ENV’T, SPENDING CALIFORNIA’S CAP-AND-TRADE REVENUE: UNDERSTANDING THE *SINCLAIR PAINT* RISK SPECTRUM 12 (2012), https://law.ucla.edu/~media/Files/UCLA/Law/Pages/Publications/CEN_EMM_PUB%20Spending_CA_Cap_Trade_Revenue.ashx

necessary to carry out the regulation's purpose; (3) that the allocation of burdens among payors reflects a fair or reasonable relationship between the charges allocated to a payor and the payor's burdens on or benefits from the regulatory activity; and (4) that the fees are not used for unrelated revenue purposes."¹³⁸

With more than \$7 billion in GGRF cash projected for appropriation in 2016,¹³⁹ the fourth requirement is likely to be most relevant in analyzing upcoming spending decisions.¹⁴⁰ Understanding what constitutes an "unrelated revenue purpose" and the limits of what a related purpose might be is therefore crucial to future cap-and-trade allocations. A general means of understanding the boundaries is that "that the total amount of money collected [can be] no more than necessary to fund the regulatory program giving rise to the fee."¹⁴¹ Obviously, this becomes difficult to measure when uniform quantitative means of tracking and measuring the impact of AB 32 investments continue to be ironed out, but case law guides: "[w]hat a fee cannot do is exceed the reasonable cost of regulation *with the generated surplus used for general revenue collection*. An excessive fee that is used to generate general revenue becomes a tax."¹⁴² Therefore, to avoid qualification as "general revenue" or "surplus used for general revenue" purposes, the cap-and-trade revenues "must be used to further the purposes of the regulatory program authorizing that revenue."¹⁴³

Simply put, this forecloses not only the depositing of auction proceeds in any fund other than the GGRF—a reality of which the legislature appears to be keenly aware—but also investment in any existing programs not deriving from AB 32.¹⁴⁴ Thus, for new spending proposals under AB 32, there *must* be both a tie-in and a *semblance* of reasonableness in the proportionality of regulated entity fees and actual GHG reductions in order to effectuate the regulatory act's goals. While this may seem patently clear from a common sense point of view, many bills have been presented with virtually *zero* connections to *GHG emissions*, and virtually *zero* attempts at justifying the budget in relation to the GHG emission reductions projected.¹⁴⁵ For example, a 2015 bill was proposed to allocate \$5 million in cap-and-trade fee proceeds to replace small district school buses in order to "*reduce the exposure of schoolchildren to harmful emissions of*

138. *Id.*

139. CAP & TRADE SPENDING PROPOSALS, *supra* note 115.

140. HOROWITZ ET AL., *supra* note 137, at 13.

141. *Id.*

142. Cal. Farm Bureau Fed'n v. State Water Res. Control Bd., 247 P.3d 112, 124 (Cal. 2011) (emphasis added).

143. HOROWITZ ET AL., *supra* note 137, at 13.

144. See TAYLOR, *supra* note 21, at 4, 12.

145. See generally CAP & TRADE SPENDING PROPOSALS, *supra* note 115 (discussing the spring 2016 spending proposals and the emission reduction benefits—or lack thereof—of each).

*particulate matter . . . which contribute to summertime smog.*¹⁴⁶

As spending vehicles stray farther from GHG-related functions towards general public benefits, opponents are increasingly able to seize on special tax arguments. Critics have already made lengthy arguments that without more evidence of concrete reductions, high-speed rail and conservation projects from the GGRF fund are “expenditures that have little or no nexus with the business subject to the cap-and-trade program.”¹⁴⁷

Thus, with these standards in mind, although the parameters are not overly strict (nor clear), proper understanding of cap-and-trade spending dynamics requires full understanding of the language of AB 32 and the scope of the legislative authority to use this money. While similar and related, a challenge on the grounds that cap-and-trade fees are special taxes is separate from a challenge on the basis that a given spending proposal does not comply with the directives of AB 32.

C. COMPLIANCE WITH LEGISLATIVE DIRECTIVES

Another genus of challenges to the cap-and-trade program is its failure to comply with statutory authority: that is, the ARB’s plan of action (the scoping plan) involves actions that are outside of the legislative directive conferred by AB 32.¹⁴⁸ Unlike the multifaceted (albeit low standard) analyses applied in tax-challenge cases, the standard of review in cases here is whether ARB acted “arbitrarily or capriciously” in executing AB 32 mandates.¹⁴⁹

This is a highly deferential standard, applied when a public agency “has been granted considerable discretion to determine what is necessary to accomplish a valid legislative goal.”¹⁵⁰ Courts have consistently upheld that AB 32’s language is purposefully and “exceptionally broad and open-ended. . . . leav[ing] virtually all decisions to the discretion of the [ARB].”¹⁵¹ Challenges attempting to pick apart individual measures of the scoping plan have been rebuffed by courts on the basis that the plan as a whole “must be evaluated—not that each proposed measure must be so

146. S.B. 523, 2015–2016 Leg., Reg. Sess. (Cal. 2015) (emphasis added) (returned to the Secretary of the Senate after reaching the Senate Environmental Quality Committee).

147. *Understanding Cap-and-Trade Revenue: Tax & Fiscal Facts*, CAL. TAX FOUND., <http://www.caltax.org/issues/CapandTradeFactsheet.pdf> (last visited Apr. 7, 2017).

148. See, e.g., *Ass’n of Irrigated Residents v. Cal. Air Res. Bd.*, 143 Cal. Rptr. 3d 65 (Ct. App. 2012).

149. *Id.* at 71 (applying the arbitrary and capricious standard of review to the scoping plan, a quasi-legislative administrative action).

150. *Id.* at 72 (observing that “a more deferential standard of review” is appropriate when a public agency has been granted such discretion from the legislature).

151. *Id.* at 79.

evaluated.”¹⁵²

In *Association of Irrigated Residents v. California Air Resources Board*,¹⁵³ a non-profit organization plaintiff challenged the methods used to achieve AB 32 goals on the basis of the multitude of technical deficiencies in effectively reducing GHG emissions by using cap-and-trade monies and offsets.¹⁵⁴ However, using the arbitrary and capricious standard to analyze each claim, the appellate court affirmed each of the trial court’s decisions, referencing the deference to ARB’s judgment in its approach each issue laid out in the scoping plan.¹⁵⁵ The court offered a spectrum of justifications for giving deference to ARB decisions, ranging from ARB’s solicitation of “voluminous administrative record[s]” and “input from industry, academia, environmental organizations, and members of the general public” to ARB’s statement that “criteria . . . will be updated as additional technological data and strategies become available.”¹⁵⁶ The standard can be summed up neatly by the court’s own language: “It is not for the court to reevaluate ARB’s judgment call.”¹⁵⁷

D. ADDITIONAL STATUTORY AND AUXILIARY DIRECTIVES

“Decisions about how to spend state auction proceeds may be made by the Legislature in coordination with the Governor’s office,” including additional statutes that may channel auction revenue in new and specific ways or repurpose auction revenues for other related uses.¹⁵⁸

As can be seen with the previously mentioned \$5 million bill to capitalize the school bus program, additional statutes such as AB 1532 and SB 535 create discord in understanding statutory priorities and thus proper compliance.¹⁵⁹ AB 1532 dictates that AB 32 money be spent on GHG reductions and, “to the extent feasible, achieve co-benefits such as job creation, air quality improvements, and public health benefits.”¹⁶⁰ SB 535 mandates the spending of one-quarter of GGRF monies “to benefit disadvantaged communities,” and 10 percent to “be invested in disadvantaged communities”¹⁶¹ SB 375 calls for greater financial resources to be directed to the implementation of the Sustainable Communities Strategy and AHSC.¹⁶²

152. *Id.*

153. *Id.* at 70.

154. *Id.*

155. *Id.* at 73–80.

156. *Id.* at 77–78.

157. *Id.* at 76.

158. HOROWITZ ET AL., *supra* note 137, at 8.

159. *See* Taylor, *supra* note 21, at 4.

160. *Id.*

161. *Id.*

162. Sustainable Communities and Climate Protection Act of 2008, ch. 728, 2008 Cal. Stat. 5065

These additions to AB 32's authority outline at least eight distinct areas of GGRF investment for purposes other than GHG reductions.¹⁶³ However, though enumerated by the California legislature, these goals should be subordinate to the core goal of AB 32, given the Act's plain language intention of reaching GHG emission reduction targets. Skeptics of GGRF spending also point to language such as "to the extent feasible" as evidence that these goals are ancillary in nature, "taking the goal of directing public investment toward disadvantaged communities as an example, the aim of the legislature was to reduce GHGs in a way that directed public investment toward those communities, if feasible and in furtherance of efforts to achieve the statewide limit."¹⁶⁴

In light of this, "[it] becomes more risky to spend auction revenue on programs aimed at these ancillary goals in isolation—for example, spending money to reduce traditional air pollutants without also reducing GHGs."¹⁶⁵ However, proponents of broader spending measures may argue that investments in these "ancillary" goals may be justified "if one considers the entirety of the cap-and-trade program as unitary, with some elements of the program (the cap) achieving GHG reductions and others (certain auction revenue decisions) achieving ancillary benefits."¹⁶⁶ Yet this would be inconsistent with the court's reasoning in *Association of Irrigated Residents*, where the multitude of approaches were justified when taken as a whole and in consideration of the overarching goal of reducing GHG emissions.¹⁶⁷ With challengers waiting for a chance to sue, it would seem highly risky to stray too far from the central mandate of AB 32 in pursuit of its secondary goals, and it is difficult to predict whether a court would view the program as a regulatory fee or, "would see money spent on projects unrelated to GHG reductions as a tax."¹⁶⁸

E. RISK OF CURRENT AND PROPOSED SPENDING MEASURES

Although commentators generally agree that the "safest revenue expenditure plan would mirror the bill's [foundational] priorities, using GHG reductions as a threshold directive and prioritizing revenue uses

(codified as amended at CAL. GOV'T CODE §§ 14522, 65080, 65400, 65583–84, 65587–88 (West 2007); CAL. PUB. RES. CODE §§ 21061, 21155, 21159 (West 2007)).

163. See HOROWITZ ET AL., *supra* note 137, at 14 ("Given this, people have asked whether auction revenue may be used to fund adaptation projects—that is, those that help California address the effects of climate change, rather than help California decrease the emissions of climate change pollution.").

164. *Id.* at 10, 14.

165. *Id.* at 14.

166. *Id.*

167. See *Ass'n of Irrigated Residents v. Cal. Air Res. Bd.*, 143 Cal. Rptr. 3d 65, 71 (Ct. App. 2012).

168. See HOROWITZ ET AL., *supra* note 137, at 14.

based on their ability to accomplish other AB 32 goals;”¹⁶⁹ in 2015 alone, 23 GGRF spending bills proposed over \$4.8 billion in investments.¹⁷⁰ Supply of revenue and demand for the use of the money certainly did not match that year.

Currently, groups of disjointed interests are pressing for uses of the revenue that all but perfectly resemble “general fund” purposes: “jobs training; investment in technology research and development; public health programs; traditional air pollution mitigation; infrastructure planning and construction; energy efficiency programs; [and] direct consumer rebates.”¹⁷¹

These proposals include: a grant program to finance parkway, greenway, and urban greening plans, and to provide recreational access to major metropolitan areas of the state; a research grant to develop organic fertilizer; and an increase of investments into “disadvantaged communities” from 10 percent to 25 percent of *all* cap-and-trade revenues.¹⁷²

III. SPENDING AUCTION PROCEEDS: ECONOMIC CRITIQUES

A. THE ECONOMIC REALITIES OF RAIL TRANSIT AND “THE NEXT GREAT TRANSIT CITY”

California’s plan for a \$64 billion bullet train relies on nearly \$45 billion of funding solely from cap-and-trade proceeds.¹⁷³ Naturally, because this money does not currently exist in the GGRF, the plan requires an extension of the “greenhouse program until 2050 and giv[ing] the rail authority permission to borrow against future income from the fees.”¹⁷⁴ However, years of delay, mismanagement, and an overall lack of results from counterpart rail programs have caused many policymakers to call into question such a long-term plan dependent on cap-and-trade funding.¹⁷⁵ In all, rail investments receive nearly half of all annual GGRF funds,¹⁷⁶ and doubts regarding the actual effectiveness of such expenditures and the per dollar costs of each ton of carbon they avert can be especially caustic to cap-and-trade spending in general.

Capitalized by over \$15 billion in rail infrastructure and development

169. *Id.*

170. CAP & TRADE SPENDING PROPOSALS, *supra* note 115.

171. HOROWITZ ET AL, *supra* note 137, at 9.

172. CAP & TRADE SPENDING PROPOSALS, *supra* note 115.

173. Ralph Vartabedian, *Senators Share Their Doubts About Bullet Train Financing with Rail Officials*, L.A. TIMES (Apr. 4, 2016 7:55 PM), <http://www.latimes.com/local/politics/la-me-train-funding-doubts-20160405-story.html>.

174. *Id.*

175. *Id.*

176. See *California Climate Investments*, *supra* note 32.

investments, Los Angeles remains the focal point of the California Governor's Office of Planning and Research's statewide "road diet"¹⁷⁷ strategy, as the State endeavors to make it "the next great transit city."¹⁷⁸ The results, however, have not matched the rhetoric.

According to U.S. Census Bureau data, across the country's 23 metropolitan cities with new rail systems constructed after 1970, exceeding over \$90 billion in capital costs, public transit market shares have actually decreased.¹⁷⁹ In Los Angeles, even the amount of total riders has decreased despite an over 25 percent increase in citywide population and billions in rail investments; in "2014–2015, ridership on . . . bus *and* rail system[s] was almost 10 percent below the bus-only [sic] system of 1985."¹⁸⁰

Critics point to two key miscues: first, that much of the former train rider statistic numbers turned out to actually have been bus riders rather than rail;¹⁸¹ second, those successful "legacy" transit cities like New York, Boston, San Francisco, Washington, Chicago, and Philadelphia were each originally constructed centrally around "well-defined cores that were mostly developed before the automobile."¹⁸² These transit hubs "accounted for 55% of all transit work trips in the nation in 2014," and commuter-trip market share in these metropolitan areas grew from 17 to 20 percent from 2000 to 2014.¹⁸³ On balance, for cities in the rest of the country, which receive the majority of investments in new rail systems, the market share rose only 0.2 percentage points during the same time period.¹⁸⁴

The issue for the next great transit city is that successful rail transit

177. Cal. Governor's Office of Planning & Research, Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA 32 (Jan. 20, 2016), http://www.opr.ca.gov/docs/Revised_VMT_CEQA_Guidelines_Proposal_January_20_2016.pdf.

178. Joel Kotkin, *Mass Transit Expansion Goes Off the Rails in Many U.S. Cities*, NEW GEOGRAPHY (Mar. 17, 2016), <http://www.newgeography.com/content/005193-mass-transit-expansion-goes-off-the-rails-in-many-us-cities>; see also Matthew Yglesias, *L.A.'s Transit Revolution*, SLATE: PIVOT (Sept. 17, 2012, 3:45 AM), http://www.slate.com/articles/business/the_pivot/2012/09/1_a_metro_how_los_angeles_is_becoming_america_s_next_great_mass_transit_city.html.

179. See *How Much Has New Rail Transit Cost?*, THOREAU INST., <http://ti.org/RailCapitalCost.pdf> (last visited Apr. 8, 2017); see also Wendell Cox, *Evaluating Urban Rail*, NEW GEOGRAPHY (Dec. 5, 2014), <http://www.newgeography.com/content/004789-evaluating-urban-rail> (discussing the decrease in transit ridership in Los Angeles).

180. Wendell Cox, *2014 Journey to Work Data: More of the Same*, NEW GEOGRAPHY (Nov. 23, 2015), <http://www.newgeography.com/content/005106-2014-journey-work-data-more-same>.

181. See Thomas Rubin, *Is the Los Angeles Time [sic] Article, "Billions Spent, but Fewer People Are Using Public Transportation in Southern California," Misleading?*, DEMOGRAPHIA 9, <http://demographia.com/db-rubin-la-transit.pdf> (last visited Apr. 8, 2017) (discussing the problem with recording transit data using unlinked trips, which count each time a rider enters a new transit vehicle, regardless of whether it is a transfer and part of a single trip, and artificially inflates ridership, especially rail ridership compared to bus ridership).

182. Kotkin, *supra* note 178.

183. *Id.*

184. *Id.*

planning is a commuter-dependent gambit. In New York, the nation's leader in public rail use, more than 20 percent of the labor force works in the city's downtown business districts.¹⁸⁵ In Los Angeles, less than 3 percent of citywide employment is located downtown and "only one in five residents even lives within the city limits."¹⁸⁶ Yet government planners and transportation officials recently stumbled over themselves to greenlight the \$2.5 billion renovation of downtown Union Station, aiming to increase capacity, reduce travel time, and expand linking routes.¹⁸⁷ Thus, critics argue, the city's aggressive rail programs and billions in spending continue to completely overlook the practical aspects of tailoring transit to the needs of a "vast and dispersed" commuter population.¹⁸⁸ As "only a minor employment center," downtown Los Angeles remains a destination for "cultural events, sports or even a restaurant, but *not for work*."¹⁸⁹ Given that the city is not alone in its sprawled development and decentralized layout,¹⁹⁰ ham-fisted GGRF spending on transit planning that disregards economic realities subverts the cap-and-trade program's integrity and effectiveness as a model that can be followed elsewhere in the country.

Compounding the negative outlook, while most European transit systems count a single passenger's journey from start to finish as a single unit in ridership figures, ridership statistics in the United States use a metric of "unlinked trips," which are counted each time a passenger enters a new transit vehicle regardless of whether or not it is a transfer on what is ultimately the same trip.¹⁹¹ According to former Chief Financial Officer of the Southern California Rapid Transit District, Thomas Rubin, counting these unlinked trips artificially inflates ridership statistics, especially as these statistics pertain to the economic value of rail lines and the return on taxpayer dollars.¹⁹² Using the European model, the aforementioned 10 percent drop in Los Angeles ridership between 1985 and 2015 would actually be a loss of more than 30 percent. In terms of tax payer dollars spent on subsidies, during this same period, each new rail rider cost over twenty times the amount of each new bus rider.¹⁹³ Exacerbating this

185. *Id.*

186. *Id.*

187. Laura J. Nelson, *How Metro Plans to Reinvent Union Station from Transit Hub to Urban Destination*, L.A. TIMES (Apr. 9, 2016, 3:00 AM), <http://fw.to/ONPCwGa>.

188. Kotkin, *supra* note 178.

189. *Id.* (emphasis added).

190. *See id.* ("In Dallas, only 2 percent of metropolitan employment is downtown. In Houston . . . it's still only 6.4 percent.")

191. Wendell Cox, *Just How Much Has Los Angeles Transit Ridership Fallen?*, NEW GEOGRAPHY (Feb. 27, 2016), <http://www.newgeography.com/content/005171-just-how-much-has-los-angeles-transit-ridership-fallen>.

192. *See id.* ("Rubin shows that, in fact, a closer look at the data suggests things are even worse that [sic] suggested . . . [Other systems] do not report the inflated ridership figures that occur as a result of counting transfers on a single trip.")

193. *See id.*

problem, Rubin explains, was the fact that with each new rail line installment, urban planners sought to encourage rail ridership by reducing bus lines in areas adjacent to rail corridors.¹⁹⁴

Further—and problematically—magnifying this transit investment strategy’s ineffectiveness, the focus on rail systems may also be inapposite to AB 32’s environmental justice goals of helping low income and disadvantaged communities. For example, instead of light rail development, a reduction in Los Angeles public bus fares would be “far more helpful to those whose median income is well below that of transit riders nationally.”¹⁹⁵ The subsidy for new Los Angeles bus riders, who tend to be the poorest of the poor, cost taxpayers \$1.40, while the cost for a new rail rider was \$25.82 over the period of 1994 to 2007.¹⁹⁶ In short, if proponents of spending proposals aimed at bulking public transit infrastructure are to make the argument that such efforts also (or even primarily) contribute to the public good aspects of the AB 32 mission, then the dogged fixation on rail makes less sense than investment in bus or other forms of transit.

B. RISK OF ECONOMIC WASTE

There remains no simple answer to the question that legislators have not exactly been eager to ask: “how much greenhouse gas emission reduction are we actually achieving per dollar spent?” Some business leaders hope for a searchable database that will include estimates of emission reductions for all the individual projects mapped.¹⁹⁷ Others deride cap-and-trade as a “cash grab” that exploits “desires to stop climate change to raise money for pet projects.”¹⁹⁸ The government, in contrast, argues economics will work in their favor: by maximizing GHG reductions, there will be reduction on the demand for allowances, putting downward pressure on the price of allowances and in turn, reducing the overall cost for covered entities to comply with AB 32 and “the potential costs that would be borne by consumers, businesses, energy ratepayers, and the economy at large.”¹⁹⁹

The problem of inconsistent measurements lingers here in the economic facets of spending cap-and-trade revenues: “it is very difficult for

194. *See id.*

195. *Id.*

196. *Id.*

197. Melanie Curry, *Mapping the Benefits of California Climate Change Policy*, STREETS BLOG CAL (Mar. 1, 2016), <http://cal.streetsblog.org/2016/03/01/mapping-the-benefits-of-california-climate-change-policy>.

198. John Rieti, *Ontario Budget 2016: Liberals’ Cap-and-Trade Plan Expected to Generate \$1.9B Annually*, CBC NEWS (Feb. 26, 2016, 9:33 AM), <http://www.cbc.ca/1.3464507>.

199. Taylor, *supra* note 21, at 9.

the Legislature to have assurance that the specific package of programs proposed by the administration would achieve the greatest reduction per dollar invested possible, or whether a different set of programs might yield better outcomes in a more cost-effective manner.”²⁰⁰ This problem is exacerbated by the fact that newly created agencies like the SGC are tasked with both developing and implementing their own tracking measures. In other words, each entity may design tracking systems that provide for the best on-paper results.

For example, although the AHSC uses a “sophisticated land use computer model that calculates the impacts of many construction projects and operations, including vehicle use,” it fails to “distinguish levels of carbon outputs of lower-income households, which drive substantially less than other households.”²⁰¹

From a purely economic perspective, the first problem is that the government uses hyper-technical measuring standards on the regulatory fee side of the system, precisely tracking polluter emissions, but imprecise metrics in determining the distribution of these same funds. Compounding this inconsistency, market factors of supply and demand determine the price points of allowances, which are tied to an overall ceiling of availability, but on the expenditure side, demand remains virtually (and problematically)²⁰² boundless because the GGRF money typically comes in the form of free grants, of which the access to applications is limited only by the relatively nominal cost of submitting funding requests.²⁰³

A quick example of this economic inconsistency can be shown with the statistics the SGC boasts about the AHSC’s successes. From 2014–2015, the SGC claimed it used its \$122 million budget to fund twenty-eight projects that together removed more than 140,000 cars off the road, preventing 723,286 metric tons of GHG emissions.²⁰⁴ This means that the SGC spent \$168.67 for every metric ton of GHG it “prevented.”²⁰⁵ Using the September 2016 market price of carbon equivalents, \$13.00,²⁰⁶ that means that for every one dollar spent by polluters at auction, ARB spends between twelve and thirteen. Cap-and-trade spending proponents might argue that the many possible indirect and long-term benefits are not taken

200. *Id.*

201. RABIN ET AL., *supra* note 24, at 69.

202. One only needs to ask why there are so many creative new spending proposals flowing through Sacramento and whether they may relate to the unspent \$500 million in the GGRF fund.

203. RABIN ET AL., *supra* note 24, at 11, 25 (noting that demands “still far exceeds investment”).

204. *Affordable Housing and Sustainable Communities Program*, *supra* note 35, at 6.

205. To arrive at this figure, divide the total budget by the number of metric tons of emissions prevented.

206. *California Carbon Dashboard*, CLIMATE POL’Y INITIATIVE, <http://calcarbodash.org/>, (last visited Apr. 8, 2017) (showing that as of September 2016, the market price for carbon equivalents was \$12.95 per metric ton).

into account in this calculation. Yet while that may be a valid notion, the current GHG calculations reflect *estimations* of the VMT deterrence effects that *as of yet constructed* affordable housing projects will produce. Thus, critics may be skeptical of the SGC's asserted emissions reductions as *as of yet* unjustified assumptions, or put another way, that "[t]he lack of an analysis evaluating the degree to which the proposals would result in GHG emission reductions is further complicated because it is unclear to what extent some proposed programs are subsidizing activities that would have happened on the natural," or without cap-and-trade revenues.²⁰⁷

IV. CASE STUDY: AHSC SPENDING AND THE APPLICATION PROCESS

A. OVERVIEW

Twenty percent of funds from the GGRF must be allocated to AHSC, divided equally between Affordable Housing projects and Disadvantaged Communities.²⁰⁸ Receipt of funding granted through the AHSC program is highly competitive: in the 2014–2015 fiscal year, the state allocated approximately \$130 million and received over 147 concept applications requesting a total over \$760 million.²⁰⁹

The program is administered by the SGC, maintained by the ARB. Funding recipients must "track metrics" in accordance with ARB funding guidelines, including guidance on expenditure records, statutory Disadvantaged Communities requirements, and project tracking and reporting.²¹⁰

In the Strategic Growth Council's 2015–2016 Program Guidelines, the body defines the purpose of the AHSC funding process as follows:

The AHSC Program will provide grants and/or loans to projects that will achieve GHG reductions and benefit Disadvantaged Communities through increasing accessibility of affordable housing, employment centers and key destinations via low-carbon transportation resulting in fewer vehicle miles traveled (VMT) through shortened or reduced vehicle trip length or mode shift to transit, bicycling or walking.²¹¹

Applications are to be selected based on their merits and proposed use of funds within the project area.²¹² Threshold requirements for selection

207. TAYLOR, *supra* note 21, at 14.

208. Email from Meea Kang, President and Co-Founder, Domus Development, to Jonathan Kintzele, USC Gould School of Law (March 23, 2016) (on file with author).

209. RABIN ET AL., *supra* note 24, at 25.

210. Cal. Strategic Growth Council, *supra* note 46, § 101.

211. *Id.* (emphasis omitted).

212. *Id.*

center around the extent to which projects realize the goal of reducing GHG emissions, as measured by AB 32's 2020 emissions target.²¹³ Subsidy awards for eligible applicants range from \$1 million to \$20 million.²¹⁴

B. LINK BETWEEN AHSC AND GHG EMISSIONS REDUCTIONS

Although the program is young and the framework for consistent GHG metrics a work in progress, there is recent evidence that projected emissions reductions from indirect effects such as transit-oriented urban planning do in fact reduce emissions. For example, the California Housing Partnership Corporation recently released a study showing that affordable homes near transit result in significant GHG reductions.²¹⁵

The study states that low income families in close proximity to public transit drive less than both high income households who live near public transit and low income households living far from transit.²¹⁶ Furthermore, in what the group marked as its "top priority bill" for the year, a coalition of interest groups including the Public Advocates, Housing California, and California Housing Partnership Corporation successfully aided the passage of AB 1550 in September of 2016.²¹⁷ In the words of Public Advocates, the bill advances the "cutting-edge paradigm" of benefiting disadvantaged communities while cutting GHG emissions by requiring "no less than 35 percent of cap-and-trade auction revenues [to] be spent to benefit low-income families and residents of low-income and disadvantaged communities."²¹⁸ Thus, the nexus between the primary and auxiliary purposes of AB 32 has only been reinforced in recent months.

Critics however, question the long-term effects and argue that preventing displacement must be also a priority for GGRF investments.²¹⁹ They argue that as investments are made in communities, rents will likely rise and the target beneficiaries will no longer be able to afford to live in

213. *Id.*

214. *Id.* § 104.

215. *See generally* CAL. HOUSING P'SHIP CORP., WHY CREATING AND PRESERVING AFFORDABLE HOMES NEAR TRANSIT IS A HIGHLY EFFECTIVE CLIMATE PROTECTION STRATEGY (2014), <http://www.transformca.org/sites/default/files/CHPC%20TF%20Affordable%20TOD%20Climate%20Strategy%20BOOKLET%20FORMAT.pdf>.

216. *Id.* at 10–11.

217. Chelsea Tu, *California Legislature Delivers Good News for Underserved Communities*, PUB. ADVOCATES, <http://www.publicadvocates.org/resources/blog/california-legislature-delivers-good-news-for-underserved-communities> (last visited Apr. 8, 2017).

218. *Id.*

219. *Cap and Trade Revenues Under AB32 and SB5535*, PUB. ADVOCATES, <http://www.publicadvocates.org/our-work/climate-justice/cap-trade-revenues-ab-32-sb-535> (last visited Apr. 6, 2017) ("[Our organization] is working with these allies to ensure that disadvantaged communities truly benefit from the investment of Cap and Trade revenues At the same time, we are seizing the opportunity to fund greater transit service and affordable housing near transit . . . to reduce GHG emissions . . . and protect [low-income families] from displacement.")

these same communities.²²⁰ Ultimately, the “mass displacement” of low income families who are priced out of transit-friendly neighborhoods will destabilize sustainable transit planning and GHG emissions will increase to prior levels.²²¹

C. ELIGIBILITY AND APPROVAL

AHSC Program funds must be used for Affordable Housing or Affordable Housing Related Infrastructure *and* at least one other type of “eligible use,” which includes either Sustainable Transportation Infrastructure, Transportation-Related Amenities, or some other ARB Program Use.²²² Applicant developments must qualify as one of two project types: Transit Oriented Developments (“TOD”) or Integrated Connectivity Projects (“ICP”). For TOD, proposals are required to include affordable housing or housing related infrastructure and transportation related infrastructure, including “transit station area improvements, such as bus stop benches and shelters; or sidewalks and dedicated bicycle paths connecting the housing project and a nearby transit station.”²²³ ICP projects “must demonstrate a reduction in vehicle miles traveled through fewer or shorter vehicle trips or a mode shift to transit, bicycling, or walking in areas that lack [quality transit].”²²⁴ “Another 30 percent of the points are based on achieving other policy objectives and 15 percent are based on a project’s feasibility and readiness.”²²⁵ In practice, however, some project applicants have reported a lack of communication flow between SGC and applicants during the process, leading to confusion as to which objectives or criteria the SGC gives greatest weight.²²⁶ For example, the developer of a recent successful GGRF-subsidized project in central California known as Anchor Village, Meea Kang, explained that she is unsure specifically which factor ultimately tipped the scales: the project’s successful application may have been a result of the fact that the development was “shovel ready”, meaning that it had all of its entitlements in place and completed CEQA, was located in a densely populated area, provided for mixed commercial use, provided 100 percent affordable housing, offered lower parking ratios, offered transit passes and a bike program, and improved accessibility to transit.²²⁷

220. *Id.* (“The core riders of local transit are the same lower-income families who are being gentrified out of urban neighborhoods.”).

221. *See id.*

222. Cal. Strategic Growth Council, *supra* note 46, § 101 fig.1.

223. *See* RABIN ET AL., *supra* note 24, at 21.

224. *Id.*

225. *Id.* at 26.

226. *See* Kang, *supra* note 208.

227. *Id.*

D. CALCULATING GHG EMISSIONS REDUCTIONS

A 2015 study by the Luskin Center for Innovation at UCLA concluded that “[t]he AHSC Program guidelines could better mitigate the competing objectives of affordability and leveraging GHG reductions per Greenhouse Gas Reduction Fund dollar spent.”²²⁸ Currently, the SGC utilizes the California Emissions Estimator Model (CalEEMod) to calculate GHG reductions.²²⁹ In fact, 55 percent of the “points” needed to receive a grant or loan through the AHSC Program are determined by the ARB’s computer model of the project’s potential reduction in GHG emissions.²³⁰ These points are driven by the “estimated GHG emissions reductions per GGRF dollar spent.”²³¹ However, applicants have noted a lack of information regarding what project types—for example, what types of transit-related infrastructure—would provide the greatest GHG reductions.²³²

V. RECOMMENDATIONS FOR CAP-AND-TRADE SPENDING

The aim of this Note is to not only outline the cap-and-trade system and critique its weaknesses, but also to provide constructive perspectives on means to ensure the long term viability of carbon trading in California. Such continued viability may largely depend on providing ideas for spending measures that are well within the boundaries of compliance with California law.

A. INCENTIVIZE WORKING FROM HOME

In light of the dramatic inefficiencies associated with building immensely expensive transit systems that may not or cannot accommodate commuter patterns in certain cities, Joel Kotkin, Fellow in Urban Studies at Chapman University and Executive Director of the Houston-based Center for Opportunity Urbanism argues that “changing work patterns may provide the most promising opportunities to reduce traffic and reduce greenhouse gases.”²³³ Indeed, rather than try to fit all cities into what is ultimately a nineteenth century technology, “we should look to encourage 21st century innovation.”²³⁴

Census Bureau commuter data supports this argument. While rail efforts in cities like Los Angeles appear to be “long on intentions and construction, but wanting in results,”²³⁵ In 2014, Los Angeles and San

228. RABIN ET AL., *supra* note 24, at 26.

229. *Id.*

230. *Id.*

231. *Id.*

232. *See id.* at 25–27.

233. Kotkin, *supra* note 178.

234. *Id.*

235. Cox, *supra* note 180.

Diego trailed only New York in the number of residents working from home.²³⁶ In fact, working at home, *not transit*, was the “principal commuting alternative to the automobile in 39 of the 53 major metropolitan areas with populations over 1 million.”²³⁷ Many of the most dramatic gains in work-from-home share took place in the U.S.’s “leading technology regions.”²³⁸ As we look towards these same type of companies for innovation and market disruption, maybe it is time to follow suit as policymakers, thinking outside the box by creating subsidies and incentives for companies to eliminate the need for a commute in the first place.

B. SUBSIDIZE RIDE-SHARING, SELF-DRIVING TECHNOLOGIES

Well-crafted subsidies to ride-sharing companies such as ZipCar, Uber, or Lyft may be able to encourage both carpooling by users and customer price reductions that benefit low income workers. Despite equalizing prices during heavy traffic, price points very well be barriers to entry to these applications, especially for lower-income riders. Rather than spend tens of billions of dollars each year investing in transit systems that may be obsolete by the time they are completed, or that ultimately fail to increase transit ridership, the investment of far smaller amounts of GGRF funds can dramatically increase access to ride-sharing alternatives. This increased access can extend to the same disadvantaged communities and low-income populations that are squarely within the purview of AB 32’s auxiliary social goals.

Finally, as Kotkin notes, “the path for transit looks even bleaker with the development of self-driving cars.”²³⁹ It would seem most fitting to invest market-based regulatory cap-and-trade proceeds in market-based solutions and domestic technology companies seeking big picture solutions. Indeed, the market has already been working in favor of reducing vehicle pollution behind the scenes. Auto pollution clean-up technology, for example, has progressed faster than total vehicle mileage: “[i]n fact total vehicle mileage more than doubled between 1970 and 1995, but auto-related pollution emissions decreased.”²⁴⁰ With the advent of self-driving, zero-emission vehicles,²⁴¹ California should consider GGRF investment in similar technologies that will undoubtedly have monumental and direct

236. *See id.*

237. Kotkin, *supra* note 178.

238. *Id.*

239. *Id.*

240. Howard Baetjer, Jr., *Why “Smart Growth” Is “Not-Smart Economics,”* INST. FOR RES. ON ECON. OF TAXATION (Sept. 2000), <http://iret.org/pub/SCRE-4.PDF>.

241. Elyse Betters, *NASA and Nissan Have Teamed Up to Make Self-Driving, Zero-Emission Cars*, POCKET-LINT (Jan. 9, 2015), <http://www.pocket-lint.com/news/132322-nasa-and-nissan-have-teamed-up-to-make-self-driving-zero-emission-cars>.

effects on carbon emissions and VMTs.

CONCLUSION

It has taken the State decades to develop the EIR process under CEQA and few would be hard pressed to refer to the environmental approval process as perfect or complete. However, the cap-and-trade program has the unique opportunity to do more than just limit harmful effects, it has the power to mitigate negative impacts and stimulate positive ones. The program is too important to California, the United States, and the rest of the world for lawmakers to approach it with reckless disregard. ARB has the opportunity to lead state and local agencies by developing better GGRF grant-money standards and tempering the eagerness for overbroad spending proposals.

The cap-and-trade program has the potential to be a successful and efficient means of mitigating climate change and reversing some of its worst effects. It can set the standard for the rest of the world to follow. However, outstanding legal or economic concerns may jeopardize California's integrity as an environmental steward and its place as a role model.

