## EJ in California Climate Policy

Katie Valenzuela

Policy & Political Director

California Environmental Justice Alliance





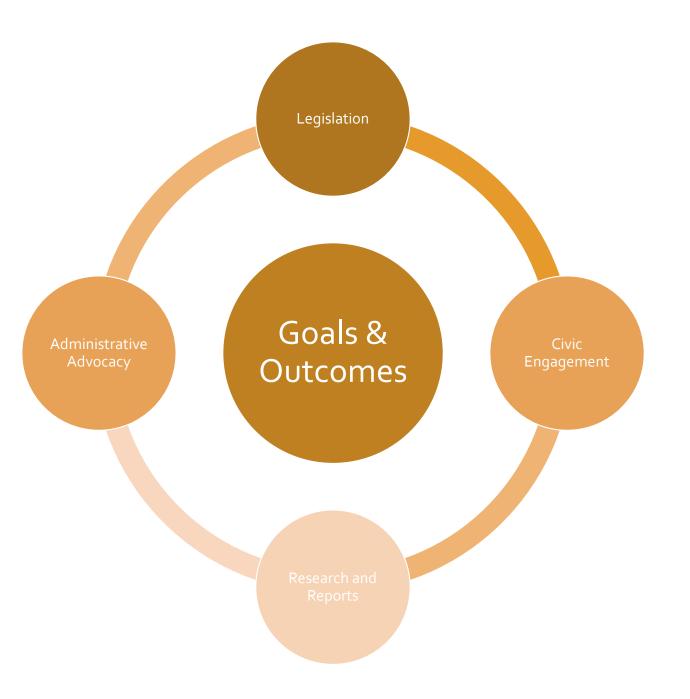




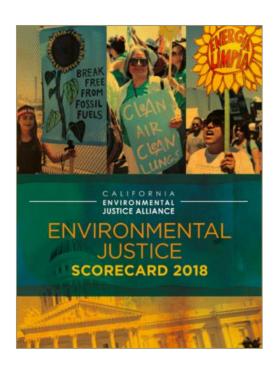
### **Our Mission**

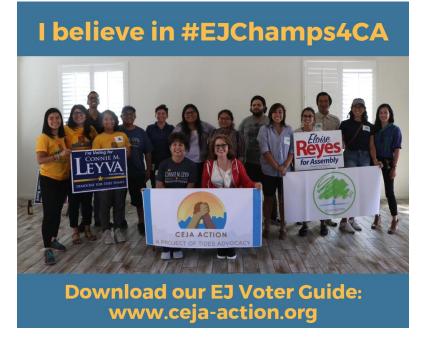
The California Environmental Justice Alliance is a statewide, community-led alliance that works to achieve environmental justice by advancing policy solutions.



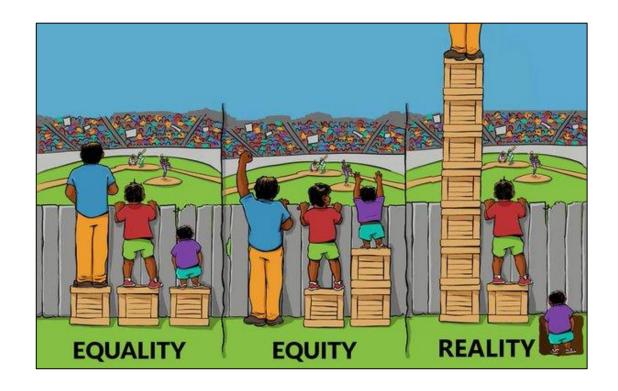








## Principles of Environmental Justice



- People speak for themselves; bottom-up organizing
- Stop doing harm
- Ensure intentional, community-defined benefit
- Intersectional policy/implementation
- https://www.ejnet.org/ej/











AB 32 (Núñez)

- California Global Warming Solutions Act of 2006
- Established the 2020 target
- Identified that low-income communities and communities of color need special attention:
  - Required ARB to establish the Environmental Justice Advisory Committee
  - Required outreach in EJ communities before adopting plans and regulations
  - Required ARB to ensure the regulations do not disproportionately impact those communities

### Excerpts from AB 32

- "The state board shall ensure that the greenhouse gas emission reduction rules, regulations, programs, mechanisms, and incentives under its jurisdiction, where applicable and to the extent feasible, direct public and private investment toward the most disadvantaged communities in California and provide an opportunity for small businesses, schools, affordable housing associations, and other community institutions to participate in and benefit from statewide efforts to reduce greenhouse gas emissions." (emphasis added)
- "Prior to the inclusion of any market-based compliance mechanism in the regulations, to the extent feasible and in furtherance of achieving the statewide greenhouse gas emissions limit, the state board shall do all of the following:
  - "(1) Consider the potential for direct, indirect, and cumulative emission impacts from these mechanisms, including localized impacts in communities that are already adversely impacted by air pollution.
  - "(2) Design any market-based compliance mechanism to prevent any increase in the emissions of toxic air contaminants or criteria air pollutants."

### Assembly Bill No. 32

### CHAPTER 488

### An act to add Division 25.5 (commencing with Section 38500) to the Health and Safety Code, relating to air

[ Approved by Governor September 27, 2006. Filed with Secretary of State September 27, 2006. 1

### LEGISLATIVE COUNSEL'S DIGEST

AB 32, Nunez. Air pollution: greenhouse gases: California Global Warming Solutions Act of 2006.

Under existing law, the State Air Resources Board (state board), the State Energy Resources Conservation and Development Commission (ferrary Commission), and the California, its climate Action Rejector Contragallo Commission, and the California Califor

This bill would require the state board to adopt regulations to require the reporting and verification of statewide souse gas emissions and to monitor and enforce compliance with this program, as specified. The bill would require the state board to adopt a statewide greenhouse gas emissions limit equivalent to the statewide greenhouse gas emissions levels in 1990 to be achieved by 2020, as specified. The bill would require the state board to adopt rules and regulations in an open public process to achieve the maximum technologically feasible and cost-effective ouse gas emission reductions, as specified. The bill would authorize the state board to adopt market-based compliance mechanisms, as defined, meeting specified requirements. The bill would require the state board to monitor compliance with and enforce any rule, regulation, order, emission limitation, emissions reduction measure, or market based compliance mechanism adopted by the state board, pursuant to specified provisions of existing law. The bill would authorize the state board to adopt a schedule of fees to be paid by rememissions, as specified.

which would be a crime, this bill would create a state-mandated local program.

The California Constitution requires the state to reimburse local agencies and school districts for certain cost mandated by the state. Statutory provisions establish procedures for making that reimburs

This bill would provide that no reimbursement is required by this act for a specified reason. Vote: majority Appropriation: no Fiscal Committee: yes Local Program: yes

THE PEOPLE OF THE STATE OF CALIFORNIA DO ENACT AS FOLLOWS:

### SECTION 1. Division 25.5 (commencing with Section 38500) is added to the Health and Safety Code, to read:

### RSION 25.5. CALIFORNIA GLOBAL WARMING SOLUTIONS ACT OF 2006 RT 1. GENERAL PROVISIONS AFTER 1. Title of Division

38500. This division shall be known, and may be cited, as the California Global Warming Solutions Act of 2006

### CHAPTER 2. Findings and Declarations

### 38501. The Legislature finds and declares all of the following:

(a) Global warming poses a serious threat to the economic well-being, public health, natural resoenvironment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human heal related problems.

(b) Global warming will have detrimental effects on some of California's largest industries, including agriculture, wine, tourism, skiling, recreational and commercial fishing, and forestry. It will also increase the strain on electricity supplies necessary to meet the demand for summer air-conditioning in the hottest parts of the state.

c) California has long been a national and international leader on energy conservation and envi efforts, including the areas of air quality protections, energy efficiency requirements, renewable energy standards, natural resource conservation, and greenhouse gas emission standards for passenger vehicles. The program established by this division will continue this tradition of environmental leadership by placing California at the forefront of national and international efforts to reduce emissions of greenhouse gases.

(d) National and international actions are necessary to fully address the issue of global warming. However, action taken by California to reduce emissions of greenhouse gases will have far-reaching effects by encouraging other states. the federal government, and other countries to act.

(e) By exercising a global leadership role, California will also position its economy, technology centers, financial institutions, and businesses to benefit from national and international efforts to reduce emissions of greenhouse gases.

More importantly, investing in the development of innovative and pioneering technologies will assist California in achieving the 2020 statewide limit on emissions of greenhouse gases established by this division and will provide an opportunity for the state to take a global economic and technological leadership role in reducing emissions of

(f) It is the intent of the Legislature that the State Air Resources Board coordinate with state agencies, as well as ental justice community, industry sectors, business groups, academic institutions environmental organizations, and other stakeholders in implementing this division.

(g) It is the intent of the Legislature that the State Air Resources Board consult with the Public Utilities Commission is the development of emissions reduction measures, including limits on emissions of greenhouse gases applied to electricity and natural gas providers regulated by the Public Utilities Commission in order to ensure that electricity and natural gas providers are not required to meet duplicative or inconsistent regulatory requirements.

(b) It is the intest of the Levislature that the State Air Resources Board design emissions reduction measures to meet the statewide emissions limits for greenhouse gases established pursuant to this division in a manner that minimizes costs and maximizes benefits for California's economy, improves and modernizes California's energy infrastructure and maintains electric system reliability, maximizes additional environmental and economic co-benefits for California, and

(i) It is the intent of the Legislature that the Climate Action Team established by the Governor to coordinate the efforts set forth under Executive Order S-3-05 continue its role in coordinating overall climate policy

### CHAPTER 3. Definitions

38505. For the purposes of this division, the following terms have the following meanings:

(a) "Allowance" means an authorization to emit, during a specified year, up to one top of carbon dioxide equivalent.

(b) "Alternative compliance mechanism" means an action undertaken by a greenhouse gas emission source that achieves the equivalent reduction of greenhouse gas emissions over the same time period as a direct emission reduction, and that is approved by the state board. "Alternative compliance mechanism" includes, but is not limited to, a flexible compliance schedule, alternative control technology, a process change, or a product substitution.

(c) "Carbon dioxide equivalent" means the amount of carbon dioxide by weight that would produce the same global warming impact as a given weight of another greenhouse gas, based on the best available science, including from the Intergovernmental Panel on Climate Change

(d) "Cost-effective" or "cost-effectiveness" means the cost per unit of reduced emissions of greenhouse gases adjusted

(e) "Direct emission reduction" means a greenhouse gas emission reduction action made by a greenhouse gas

authorized pursuant to this division, applicable to sources or categories of sources, that are designed to reduce emissions of greenhouse gases

house gas" or "greenhouse gases" includes all of the following gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexaflouride.

(h) "Greenhouse gas emissions limit" means an authorization, during a specified year, to emit up to a level of greenhouse gases specified by the state board, expressed in tons of carbon dioxide equivalent

(i) "Greenhouse gas emission source" or "source" means any source, or category of sources, of greenh emissions whose emissions are at a level of significance, as determined by the state board, that its participation in the program established under this division will enable the state board to effectively reduce green monitor compliance with the statewide greenhouse gas emissions limit.

(1) "Leakage" means a reduction in emissions of greenhouse gases within the state that is offset by an increase missions of greenhouse gases outside the state.

(k) "Market-based compliance mechanism" means either of the following:

(1) A system of market-based declining annual aggregate emissions limitations for sources or catego

(2) Greenhouse gas emissions exchanges, banking, credits, and of established by the state board, that result in the same greenl as direct compliance with a greenhouse gas emission limit or pursuant to this division.

state or imported.

he state agency charged with monitoring and regulating sources of emissions ning in order to reduce emissions of greenhouse gases

### GREENHOUSE GAS EMISSIONS REPORTING

38530. (a) On or before January 1, 2008, the state board shall adopt regulations to require the re verification of statewide greenhouse gas emissions and to monitor and enforce compliance with this program

(b) The regulations shall do all of the following:

(1) Require the monitoring and annual reporting of greenhouse gas emi beginning with the sources or categories of sources that contribute the most to

(2) Account for greenhouse gas emissions from all electricity distribution line losses from electricity generated within applies to all retail sellers of electricity, includin Section 380 o

ot be required to significantly alter their

(2) Review existing and proposed international, federal, and state greenhouse gas emission reporting programs and make reasonable efforts to promote consistency among the programs established pursuant to this part and other programs, and to streamline reporting requirements on greenhouse gas emission sources.

### PART 3. STATEWIDE GREENHOUSE GAS EMISSIONS LIMIT

38550. By January 1, 2008, the state board shall, after one or more public workshops, with public notice, and an nity for all interested parties to comment, determine what the statewide greenhouse gas emissions level was 1990, and approve in a public hearing, a statewide greenhouse gas emissions limit that is equivalent to that level, to be achieved by 2020. In order to ensure the most accurate determination feasible, the state board shall evaluate the est available scientific, technological, and economic information on greenhouse gas emissions to determine the 1990 level of greenhouse gas emissions.

38551. (a) The statewide greenhouse gas emissions limit shall remain in effect unless otherwise amended or repealed. (b) It is the intent of the Legislature that the statewide greenhouse gas emissions limit continue in existence and be

used to maintain and continue reductions in emissions of greenhouse gases beyond 2020.

(b) On or before January 1, 2010, the state board shall adopt regulations to impl

(c) The state board shall make recommendations to the Governor and the Legislature on how to continue reductions of reenhouse gas emissions beyond 2020.

### PART 4. GREENHOUSE GAS EMISSIONS REDUCTIONS

38500. The state board shall adopt rules and regulations in an open public process to achieve the maximum ouse gas emission reductions from sources or catego subject to the criteria and schedules set forth in this part.

early action greenhouse gas emission reduction measures that can be implemented prior to the measures adopted pursuant to Section 38562.

list published pursuant to subdivision (a). 38560.5. (a) On or before June 30, 2007, the state board shall it

early action greenhouse gas emission reduction me adopted pursuant to Section 38562.

tate hoard shall prepare and approve a scoping plan, as that term is eving the maximum technologically feasible and cost-effective reductions in surces or categories of sources of greenhouse gases by 2020 under this division. The ult with all state agencies with jurisdiction over sources of greenhouse gases, including the Public ssion and the State Energy Resources Conservation and Developeration ian that pertain to energy related matters including, but not limited to, electric ments, the provision of reliable and affordable electrical service, per supplies to ensure the greenhouse gas emissions reduction activities to be adopted to the supplier of the supp board are complementary, nonduplicative, and can be implemented in an efficient as

(h) The plan shall identify and make recommendations on direct emission reduct and categories of sources that the state board finds are ne

(c) In making the determ

the plan

available (e) In de count the relative contribution of each source or source id the potential for adverse effects on small businesses, and shall

apply.

forceable voluntary actions, including, but not limited to, carbon sequestration projects and best

(g) The state board shall conduct a series of public workshops to give interested parties an opportunity to comment on the plan. The state board shall conduct a portion of these workshops in regions of the state that have the most significant exposure to air pollutants, including, but not limited to, communities with minority populations, communities with low-income populations, or both.

(h) The state board shall update its plan for achieving the maximum technologically feasible and cost-effective

38562, (a) On or before January 1, 2011, the state board shall adopt greenhouse gas emission limits and emission reduction measures by regulation to achieve the maximum technologically feasible and cost-effective reductions in house gas emissions in furtherance of achieving the statewide greenhouse gas emissions limit, to become operative beginning on January 1, 2012.

(b) In adopting regulations pursuant to this section and Part 5 (commencing with Section 38570), to the extra feasible and in furtherance of achieving the statewide greenhouse gas emissions limit, the state board shall do all of

(1) Design the regulations, including distribution of emissions allowances where appropriate, in a manner that is able, seeks to minimize costs and maximize the total benefits to California, and encourages early action to reduce greenhouse gas emissions.

(2) Ensure that activities undertaken to comply with the regulations do not disproportionately impact low-income

(3) Ensure that entities that have voluntarily reduced their greenhouse gas emissions prior to the implementation of this section receive appropriate credit for early voluntary reduc-

achieve and maintain federal and state ambient air quality standards and to reduce toxic air contamin

(5) Consider cost-effectiveness of these regulations.

(6) Consider overall societal benefits, including reductions in other air pollutant other benefits to the economy, environment, and public health.

(7) Minimize the administrative burden of implem

(8) Minimize leakage.

(9) Consider the significance greenhouse gases.

mit, by January 1, 2011, the state board ma annual aggregate emission limits for sources of mum technologically feasible and cost-effective rom those sources or categories of sources

(d) Any re d pursuant to this part or Part 5 (commencing with Section 38570) shall

f applicable, the greenhouse gas emission reduction occurs over the same time period and is equivalent in a

to any direct emission reduction required pursuant to this division.

existing and projected technological capabilities when adopting the regulations required by this s (f) The state board shall consult with the Public Utilities Comm affect electricity and natural gas providers in order to minimize dupl

(n) After January 1, 2011, the state hoard may reonal regulations to further the provisions

rd from adopting green! those limits or me

and the federal gover ment, and other nations to identify the ise gases, manage greenhouse gas control programs, and to ective regional, national, and international greenhouse gas

ouse gas emission reduction rules, regulations, programs, ere applicable and to the extent feasible, direct public and private ities in California and provide an opportunity for small bu nunity institutions to participate in and benefit from statewide ble housing associations, and

### PART 5. MARKET-BASED COMPLIANCE MECHANISMS

38570. (a) The state board may include in the regulations adopted pursuant to Section 38562 the use of market-based

furtherance of achieving the statewide greenhouse gas emissions limit, the state board shall do all of the following: (1) Consider the potential for direct, indirect, and cumulative emission impacts from these mechanisms, including

(2) Design any market-based compliance mechanism to prevent any increase in the emissions of toxic air contaminants or criteria air pollutants.

icalized impacts in communities that are already adversely impacted by air pollution. (3) Maximize additional environmental and economic benefits for California, as appropriate.

(c) The state board shall adopt regulations governing how market-based compliance mechanisms may be used by regulated entities subject to greenhouse gas emission limits and mandatory emission reporting requirements to achieve compliance with their greenhouse gas emissions limits.

38571. The state board shall adopt methodologies for the quantification of voluntary greenhouse gas emission reductions. The state board shall adopt regulations to verify and enforce any voluntary greenhouse gas emis reductions that are authorized by the state board for use to comply with greenhouse gas emission limits established by the state board. The adoption of methodologies is exempt from the rulemaking provisions of the Administrative Procedure Act (Chapter 3.5 (commencing with Section 11340) of Part 1 of Division 3 of Title 2 of the Government

38574. Nothing in this part or Part 4 (commencing with Section 38560) confers any authority on the state board to alter any programs administered by other state agencies for the reduction of greenhouse gas emission

3850. (a) The state board shall monitor compliance with and enforce any rule, regulation, order, emission limitation emissions reduction measure, or market-based compliance mechanism adopted by the state board pursuant to this

(b) (1) Any violation of any rule, regulation, order, emission limitation, emissions reduction measure, or other measure ited by the state board pursuant to this division may be enjoined pursuant to Section 41513, and the subject to those penalties set forth in Article 3 (commencing with Section 42400) of Chapter 4 of Part 4 of, and

subject to those penalties set forth in Article 3 (commencing with Section 42400) of Chapter 4 of Part 4 of, and Chapter 1.5 (commencing with Section 43025) of Part 5 of, Division 26.

(2) Any violation of any rule, regulation, order, emission limitation, emissions reduction measure, or other measure adopted by the state board pursuant to this division shall be deemed to result in an emission of an air contaminant for the purposes of the penalty provisions of Article 3 (commencing with Section 42400) of Chapter 4 of Part 4 of, and Chapter 1.5 (commencing with Section 43025) of Part 5 of, Division 26.

(3) The state board may develop a method to convert a violation of any rule, regulation, order, emission limitation, or ther emissions reduction measure adopted by the state board pursuant to this division into the number of days in violation, where appropriate, for the purposes of the penalty provisions of Article 3 (commencing with Section 42400) of Chapter 4 of Part 4 of, and Chapter 1.5 (commencing with Section 43025) of Part 5 of, Division 26.

(c) Section 42407 and subdivision (i) of Section 42410 shall not apply to this part.

### PART 7. Miscellaneous Provisions

38590. If the regulations adopted pursuant to Section 43018.5 do not remain in effect, the state board shall implement alternative regulations to control mobile sources of greenhouse gas emissions to achieve equivalent or greater

38591, (a) The state board, by July 1, 2007, shall convene an environmental justice advisory committee, of at least three members, to advise it in developing the scoping plan pursuant to Section 38561 and any other pertinent matter in implementing this division. The advisory committee shall be comprised of representatives from communities in the state with the most significant exposure to air pollution, including, but not limited to, communities with minority opulations or low-income populations, or both

(b) The state boar advisory committee members from nominations received from environmental

nable per diem for attendance at advisory committee meetings by advisory sizations.

nomic and Technology Advancement Advisory Committee to advise the state tment in and implementation of technological research and deve to, identifying new technologies, research, demonstration projects, funding onal, and international partnerships and technology transfer opportunities, and rch and advanced technology investment and incentive opportunities that will assist in house gas emissions. The committee may also advise the state board on state, regional, international economic and technological developments related to greenhouse gas emission reductions.

38592. (a) All state agencies shall consider and implement strategies to reduce their greenhouse gas emissions.

(b) Nothing in this division shall relieve any person, entity, or public agency of compliance with other applicable federal, state, or local laws or regulations, including state air and water quality requirements, and other requirements for protecting public health or the environment.

(a) Nothing in this division affects the authority of the Public Utilities Commission.

38593. (b) Nothing in this division affects the obligation of an electrical corporation to provide customers with safe and reliable electric service.

38594. Nothing in this division shall limit or expand the existing authority of any district, as defined in Section 39025.

38595. Nothing in this division shall preclude, prohibit, or restrict the construction of any new facility or the expa of an existing facility subject to regulation under this division, if all applicable requirements are met and the facility is in compliance with regulations adopted pursuant to this division.

38596. The provisions of this division are severable. If any provision of this division or its application is held invalid, that invalidity shall not affect other provisions or applications that can be given effect without the invalid provision or

38597. The state board may adopt by regulation, after a public workshop, a schedule of fees to be paid by the sources of greenhouse gas emissions regulated pursuant to this division, consistent with Section 57001. The reve pursuant to this section, shall be deposited into the Air Pollution Control Fund and are available upon appropriation, by the Legislature, for purposes of carrying out this division.

38598. (a) Nothing in this division shall limit the existing authority of a state entity to adopt and implement greenhouse

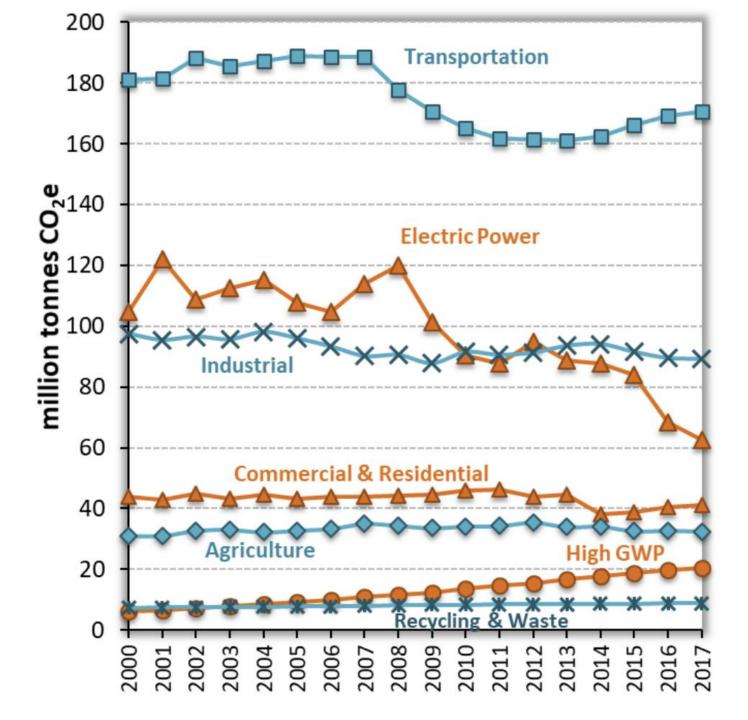
(b) Nothing in this division shall relieve any state entity of its legal obligations to comply with existing law or

38599. (a) In the event of extraordinary circumstances, catastrophic events, or threat of significant economic harm, the Governor may adjust the applicable deadlines for individual regulations, or for the state in the aggregate, to the earliest feasible date after that deadline.

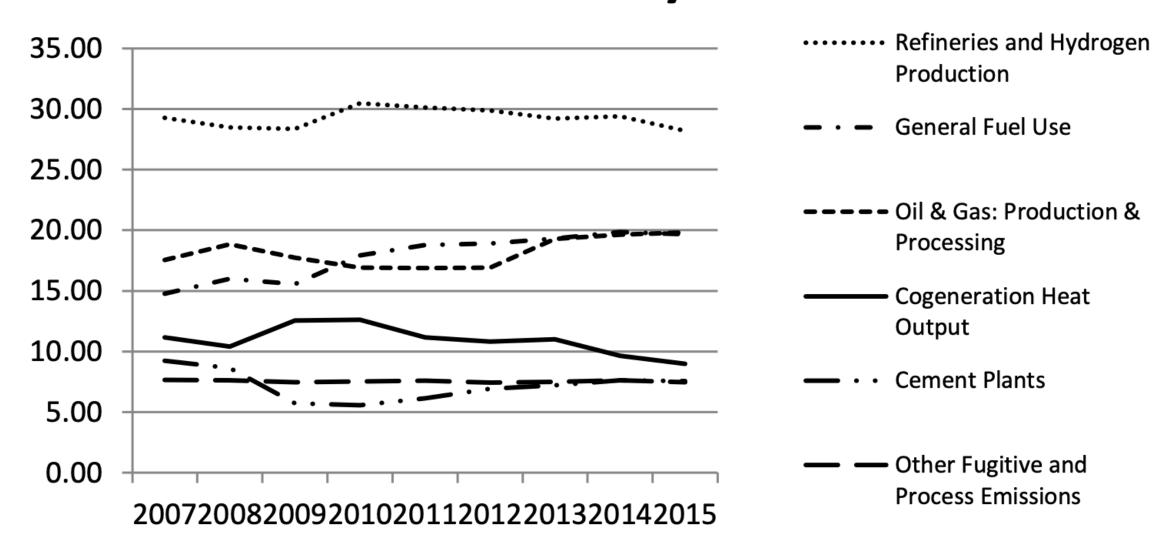
(b) The adjustment period may not exceed one year unless the Governor makes an additional adjustment pursuant to

7 (commencing with Section 8550) of Division 1 of Title 2 of the Government Code). (d) The Governor shall, within 10 days of invoking subdivision (a), provide written notification to the Legislature of the

SEC. 2 No reimbursement is required by this act pursuant to Section 6 of Article XIIIB of the California Constitution because the only costs that may be incurred by a local agency or school district will be incurred because this act creates a new crime or infraction, eliminates a crime or infraction, or changes the penalty for a crime or infraction within the meaning of Section 17556 of the Government Code, or changes the definition of a crime within the meaning of Section 6 of Article XIII B of the California Constitution.



### California GHG Inventory, 2000-2015: Industry



"We now know that we are not on a line that's going to meet the 2030 target, much less the 2045 goal of carbon neutrality. And so we're going to have to step back and take a serious look at the role that Cap-and-Trade, and other measures, play in getting us to that point."

- Chair Nichols, Dec. 13 2018 ARB hearing

Enter: Geoengineering

### Executive Department

State of California

### **EXECUTIVE ORDER B-55-18 TO ACHIEVE CARBON NEUTRALITY**

WHEREAS climate change is causing historic droughts, devastating wildfires, torrential storms, extreme heat, the death of millions of trees, billions of dollars in property damage, and threats to human health and food supplies; and

WHEREAS California's forests, agricultural and ranch lands, wetlands, oceans, and other natural and working landscapes define the beauty and well-being of our state, but tragically are suffering increasing degradation caused by changing climate; and

WHEREAS California has established ambitious targets to reduce carbon emissions 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050; and

WHEREAS nations came together to adopt the Paris Agreement under the United Nations Framework Convention on Climate Change, which calls for preventing average global temperatures from rising more than 2°C (3.6°F) above pre-industrial levels and pursuing efforts to keep warming below 1.5°C (2.7°F); and

WHEREAS California has strong partnerships through the Under2Coalition with more than 200 jurisdictions around the world, representing 1.3 billion people, committing themselves to meeting the Paris Agreement goals and going beyond them wherever possible; and

WHEREAS scientists agree that worldwide carbon pollution must start trending downward by 2020, and carbon neutrality—the point at which the removal of carbon pollution from the atmosphere meets or exceeds emissions—must be achieved by midcentury; and

WHEREAS the achievement of carbon neutrality will require both significant reductions in carbon pollution and removal of carbon dioxide from the atmosphere, including sequestration in forests, soils, and other natural landscapes; and

WHEREAS California's 2017 Climate Scoping Plan charts the steps to achieve the state's greenhouse gas emissions goals, presenting a balanced set of economically viable and technologically feasible actions for carbon reduction; and

WHEREAS California has taken the following specific steps to reduce greenhouse gas emissions:

- Requiring significant reductions of destructive super pollutants including black carbon and methane;
- Supporting clean transportation to reduce petroleum use 45 percent by 2030;
- Setting a goal of 5 million zero emission vehicles by 2030;
- Proposing to double the reduction in the carbon intensity of fuels through the Low Carbon Fuel Standard by 2030;
- Moving the state to 100 percent clean energy by 2045;
- · Requiring the state to double the rate of energy efficiency savings in buildings;
- · Extending and improving the state's cap-and-trade program;
- Directing cap-and-trade funds to greenhouse gas reducing programs which benefit disadvantaged communities;
- Developing a Forest Carbon Plan to better manage California's forest land.

CHILDREN IN

NOW, THEREFORE, I, EDMUND G. BROWN JR., Governor of the State of California, in accordance with the authority vested in me by the Constitution and statutes of the State of California, do hereby issue this Executive Order, effective immediately:

### IT IS HEREBY ORDERED THAT:

- A new statewide goal is established to achieve carbon neutrality as soon as
  possible, and no later than 2045, and achieve and maintain net negative
  emissions thereafter. This goal is in addition to the existing statewide targets of
  reducing greenhouse gas emissions.
- The California Air Resources Board shall work with relevant state agencies to develop a framework for implementation and accounting that tracks progress toward this goal.
- The California Air Resources Board shall work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.
- 4. The California Natural Resources Agency, the California Environmental Protection Agency, the California Air Resources Board, and the California Department of Food and Agriculture shall include sequestration targets in the Natural and Working Lands Climate Change Implementation Plan consistent with the carbon neutrality goal.
- All policies and programs undertaken to achieve carbon neutrality shall seek to improve air quality and support the health and economic resiliency of urban and rural communities, particularly low-income and disadvantaged communities.
- All policies and programs undertaken to achieve carbon neutrality shall be implemented in a manner that supports climate adaptation and biodiversity, including protection of the state's water supply, water quality and native plants and animals.
- State agencies will engage the support, participation, and partnership of universities, businesses, investors, and communities, as appropriate, to achieve the goals contained in this order.

This Order is not intended to, and does not, create any rights or benefits, substantive or procedural, enforceable at law or in equity, against the State of California, its agencies, departments, entities, officers, employees, or any other person.

IN WITNESS WHEREOF I have hereunto set my hand and caused the Great Seal of the State of California to be affixed this 10th day of September 2018.

EDMUND G. BROWN, JR. Governor of California

ATTEST:

ALEX PADILLA Secretary of State





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### 100% Clean: How Do We Actually Get There?

By Steve Capanna / Bio / Published: October 22, 2019

For the U.S. to do its part to help avoid the worst impacts of climate change, we must achieve a 100% clean economy by 2050 at the latest – removing at least as much climate pollution from the atmosphere as we put into it each year. (Read this for more on what we mean by "100% clean" or why this should be the goal.) But what does a 100% clean economy actually look like and how do we get there?

• Removing carbon dioxide from the atmosphere. Protecting and increasing natural carbon "sinks" like forests or by deploying technologies that suck CO<sub>2</sub> directly out of the air can help lower concentrations of carbon dioxide in the atmosphere, helping us reach 100% clean as quickly as possible. Also, because it will be very challenging to completely eliminate emissions from all parts of the economy, especially industry and transportation, carbon dioxide removal (CDR) can help ensure we're taking as much carbon out of the atmosphere as we're putting into it. There is disagreement over how big the potential carbon sink is from natural sources (the Evolved study, for instance, assumes the potential for natural CDR is large relative to other estimates). To the extent less natural CDR is available, we will need more technological CDR or more carbon mitigation.

## Concerns with Carbon Neutrality



- Extends polluting actions, delays deployment of cleaner technology or stronger policies to reduce emissions at the source
- Fails to address co-pollutants
- Relies heavily on market mechanisms, which often assume a false equivalency between a pound of carbon emitted and a "credit" for a pound of carbon reduced.

### Carbon vs. Co-Pollutants



- Criteria Pollutants and Toxic Air Contaminants
  - Examples: Particulate Matter, Ozone, Benzene, etc.
- Similar sources, various levels of correlation

## Recommendations for Moving Forward

# Fighting Climate Change and Improving Public Health



- Prioritize direct emissions reductions.
- Avoid sector-wide or economy-wide caps that don't include tools for addressing spike at specific facilities.
- Let communities lead statewide EJ Advisory Committee, agency leads on EJ

### Thank you!

katie@caleja.org

https://caleja.org/

http://ceja-action.org/