

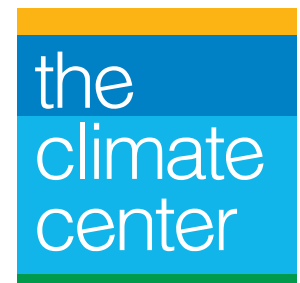


---

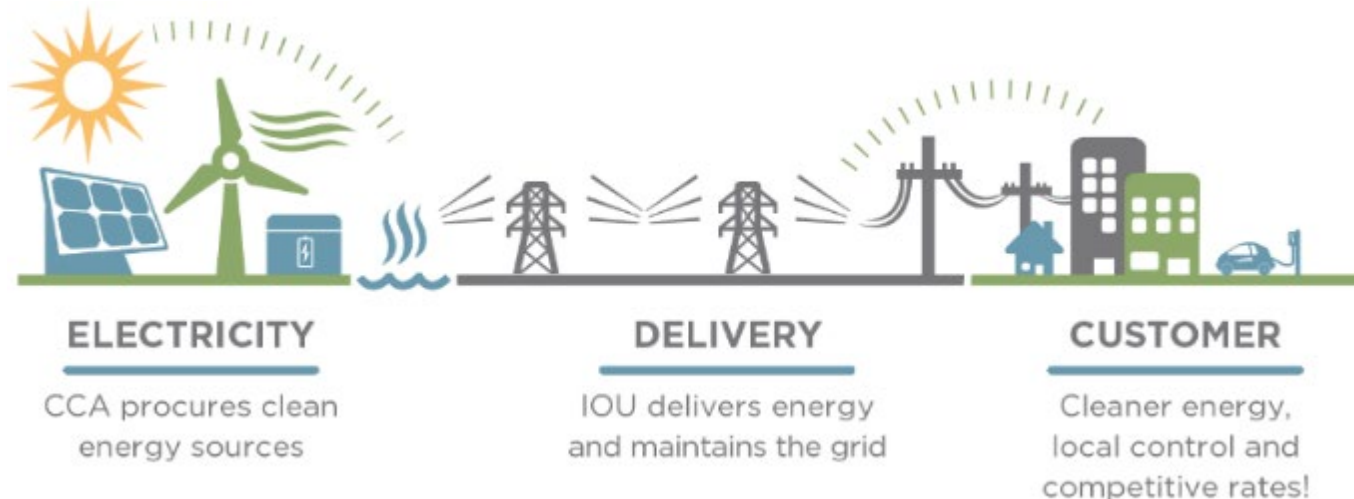
# Climate-Safe California: Accelerating equitable climate policy

October 13, 2021

Ellie Cohen and team



## Mission: Speed and scale greenhouse gas reductions



**Key role in growing Community Choice Energy:  
24 CCAs serving 80-90% GHG-free electricity to  
11 million Californians- 1/4 of state!**

# Current global climate goals are **inadequate**

## UN IPCC 1.5C Report- Oct 2018

- Cut emissions by 45% by 2030

AND

- remove up to 1000 Gt CO<sub>2</sub>e from atmosphere

to achieve “net-zero” emissions by 2050 and stay under 1.5C warming



**UN operates by consensus so goals are conservative and not enough.**

**We must do more sooner per new science...**

# **“Code red for humanity....**

**This report must sound a death knell for coal and fossil fuels, before they destroy our planet.”**

*-UN Secretary General António Guterres, Aug 9 2021,  
re: United Nation IPCC 6<sup>th</sup> Assessment Report*



**Global climate models do not include regional extreme events we are now experiencing**

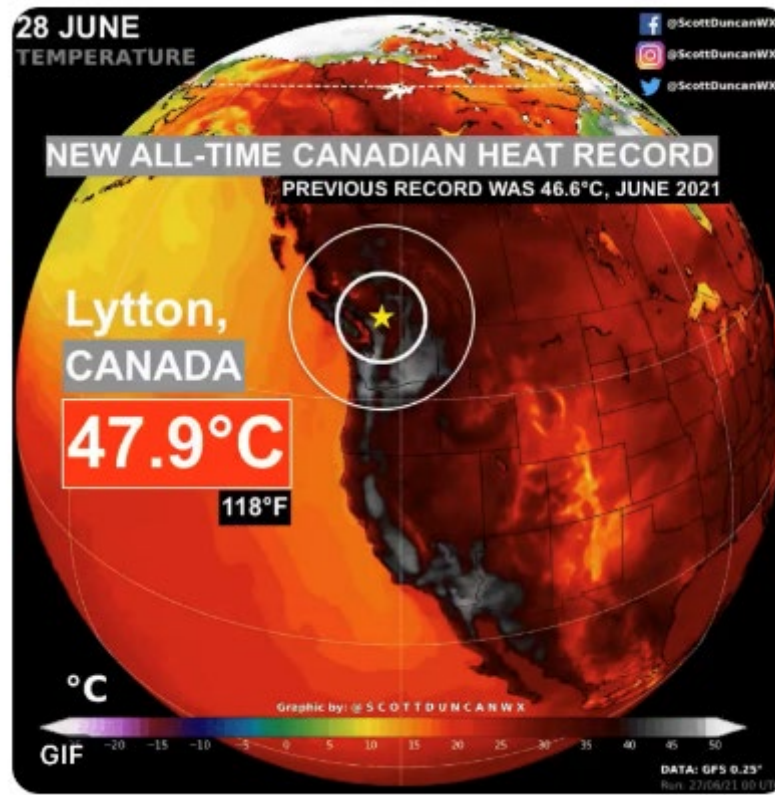
<https://www.reuters.com/business/environment/un-sounds-clarion-call-over-irreversible-climate-impacts-by-humans-2021-08-09/>

<https://www.theguardian.com/environment/2021/jul/02/canadian-inferno-northern-heat-exceeds-worst-case-climate-models>

<https://grist.org/science/is-climate-change-happening-faster-than-expected-a-climate-scientist-explains/>

# “No temperature rise is safe”...rapidly warming climate is the "greatest threat" to global public health

- 220+ medical journal editorials Sept. 7 2021



[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)01915-2/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)01915-2/fulltext)

<https://www.npr.org/2021/09/07/1034670549/climate-change-is-the-greatest-threat-to-public-health-top-medical-journals-warn>





# Record surge of methane emissions

- Methane: >80x warming power of CO<sub>2</sub> over 20 years
- Majority of increase globally due to fracking in No America

- Record surge in methane levels 'surprising and disturbing', say scientists, FT, Apr 7, 2021  
<https://www.ft.com/content/a967f863-1bf8-448b-9448-b67540e80b4d>
- <https://news.cornell.edu/stories/2019/08/study-fracking-prompts-global-spike-atmospheric-methane>
- Howarth. *Biogeosciences*, 2019 DOI: [10.5194/bg-16-3033-2019](https://doi.org/10.5194/bg-16-3033-2019)

# Western US now in global warming-induced severe megadrought

- **Threatens dustbowl & ag economy by as early as 2027 in CA**
- 2015 drought cost ~\$2.7 billion and 20k lost ag jobs in California



<https://www.washingtonpost.com/weather/2020/04/16/southwest-megadrought-climate-change/>  
[Williams et al. Science Apr 17 2020](#)  
<https://www.scientificamerican.com/article/drought-takes-2-7-billion-toll-on-california-agriculture/>

# Increasing health impacts especially to most vulnerable communities

Fossil fuel air pollution => 1 in 5 deaths globally

2020 CA smoke storm: ~3000 addl deaths among 65+

7.3 million Californians live within 1 mi. of oil & gas wells



<https://www.fractracker.org/2020/12/people-and-production/>

<https://www.seas.harvard.edu/news/2021/02/deaths-fossil-fuel-emissions-higher-previously-thought>

<https://www.latimes.com/california/story/2021-02-01/wildfire-smoke-microbes-in-the-air>

<http://www.who.int/globalchange/en/>; Leleiveld et al., Cardiovascular, March 2020; Hoffman et al. Climate Jan 2020

Bekkar et al JAMA June 2020

<https://www.nytimes.com/2020/06/18/climate/climate-change-pregnancy-study.html>

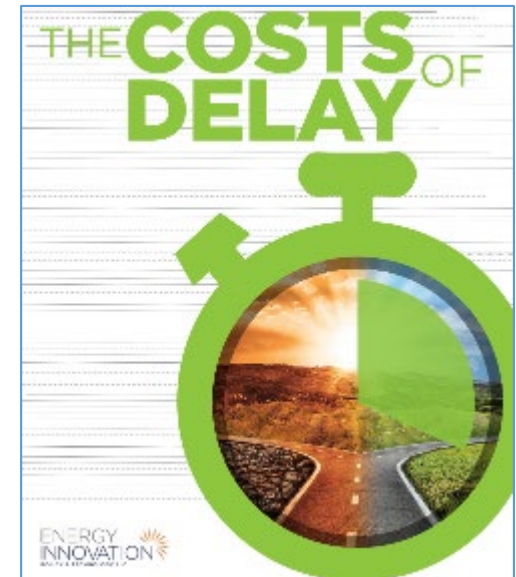
<https://amp-sacbee-com.cdn.ampproject.org/c/s/amp.sacbee.com/news/california/fires/article245947495.html>;

<http://www.g-feed.com/2020/09/indirect-mortality-from-recent.html>



# Climate action delay costs trillions, bankrupting our economy

- **Costs much less investing big today rather than waiting until 2030** *(For CA: est. \$47 billion/year now vs. \$110 billion/year starting in 2030 based on CA =14.6% of GDP)*
- **\$150 Billion in damages from 2018 CA wildfires**
- *but \$80 Billion invested in California generate ~725,000 jobs*



[https://energyinnovation.org/wp-content/uploads/2021/01/Cost\\_of\\_Delay.pdf](https://energyinnovation.org/wp-content/uploads/2021/01/Cost_of_Delay.pdf)

<https://www.federalreserve.gov/publications/files/financial-stability-report-20201109.pdf>

<https://www.nytimes.com/2020/09/08/climate/climate-change-financial-markets.html>

Wang, D et al. **Economic footprint of California wildfires in 2018.** *Nature Sustainability*, 2020 DOI: [10.1038/s41893-020-00646-7](https://doi.org/10.1038/s41893-020-00646-7)

<https://www.accuweather.com/en/weather-news/california-wildfires-will-cost-tens-of-billions-accuweather-estimates/612548>

Political Economy Research Institute [https://www.peri.umass.edu/images/CA-EconRecProgram-6-12-20\\_Final.pdf](https://www.peri.umass.edu/images/CA-EconRecProgram-6-12-20_Final.pdf)

World Resources Institute <https://www.wri.org/blog/2020/07/economic-benefits-climate-action-us>

## RAISING THE ALARM

Evidence that tipping points are under way has mounted in the past decade. Domino effects have also been proposed.



**A. Amazon rainforest**  
Frequent droughts

**B. Arctic sea ice**  
Reduction in area

**C. Atlantic circulation**  
In slowdown since 1950s

**D. Boreal forest**  
Fires and pests changing

**F. Coral reefs**  
Large-scale die-offs

**G. Greenland ice sheet**  
Ice loss accelerating

**H. Permafrost**  
Thawing

**I. West Antarctic ice sheet**  
Ice loss accelerating

**J. Wilkes Basin, East Antarctica**  
Ice loss accelerating

**9 of 15 global tipping points underway now... domino effect to uninhabitable 'hothouse' climate if we don't act soon...**

Lenton, Rockstrom, Gaffney, Rahmstorf, Richardson, Steffen, Schyellnhuber.  
*Nature*, Nov 27 2019

<https://www.nature.com/articles/d41586-019-03595-0>

<https://www.sciencedaily.com/releases/2019/11/191127161418.htm>

**“We have underestimated the risks off **unleashing irreversible changes** ...We are seeing strong evidence already for **declaring a state of planetary emergency**...**

**The next decade is our window...with consequences for all future generations.”**



- Johan Rockström, Director, Potsdam Institute for Climate Impacts Research, 2019

<https://www.sciencedaily.com/releases/2019/11/191127161418.htm>

<https://sverigesradio.se/avsnitt/1425542>

<https://medium.com/@rchrthy/johan-rockstr%C3%B6ms-10-point-agenda-for-saving-the-world-unofficial-transcript-431261f885c6>

**“Humanity is causing a rapid loss of biodiversity and, with it, Earth's ability to support complex life. But the mainstream is having difficulty grasping the magnitude of this loss, despite the steady erosion of the fabric of human civilization.”**





# Carbon neutrality or net zero CO<sub>2</sub>e emissions- is it enough?

Balance  
carbon emissions  
with carbon  
removal

(transition to a "post-carbon  
economy").

**NO!**



**The climate reality  
is outpacing  
policy.**

**Some leaders are  
now stepping up  
but....**

# ...California is behind: New International & National Climate Targets....

- ✓ **EUROPEAN UNION:** Cut GHGs by at least 55% by 2030 ... from 1990 levels to reach net zero emissions by 2050
- ✓ **UK:** Cut GHGs 68% by 2030 from 1990 levels; 100% ZEV sales by 2030; 100% clean electricity by 2035
- ✓ **RHODE ISLAND:** 100% GHG free electricity by 2030
- ✓ **PRESIDENT BIDEN**
  - Cut GHGs 50% below 2005 by 2030
  - 100% GHG free electricity by 2035
  - 40% investments to lower-income communities
  - Invest \$2 trillion (= ~\$292 Billion in CA @ 14.6% GDP)

# Bold targets work!

## As goes California, goes the world

- AB1493 (2002) **tailpipe emissions cuts**
  - later adopted by 13 other states; basis for 2010 national clean car standards
- SB100 (2017)- **100% carbon-free electricity** by 2045
  - already adopted by 10 other states and Biden Administration with earlier deadlines
- CA launched **Under2 Coalition** (2017); now includes 220 jurisdictions with 1.3 billion people and 43% of the world economy
- Gov. Newsom EO **100% ZEV car sales** by 2035 (Sept 2020) – must be earlier but...
  - GM announces will sell only 100% ZEV cars by 2035 (Jan 2021); Volvo by 2030 (Mar 2021); New York State (Sept 2021)

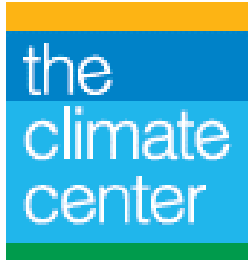




# The nation and the world are looking to California to lead for a climate-safe future



**Need more aggressive, equitable policies  
& accelerated timelines in CA now!**



## **Climate-Safe California**

### **Campaign for Rapid Decarbonization**

[www.theclimatecenter.org](http://www.theclimatecenter.org)

**GOAL: By 2025, CA will have enacted the bold policies required by science to dramatically cut emissions, start drawdown and secure resilient communities for all by 2030, inspiring global action**



# CLIMATE-SAFE CALIFORNIA

accelerate existing state goals 15 years...

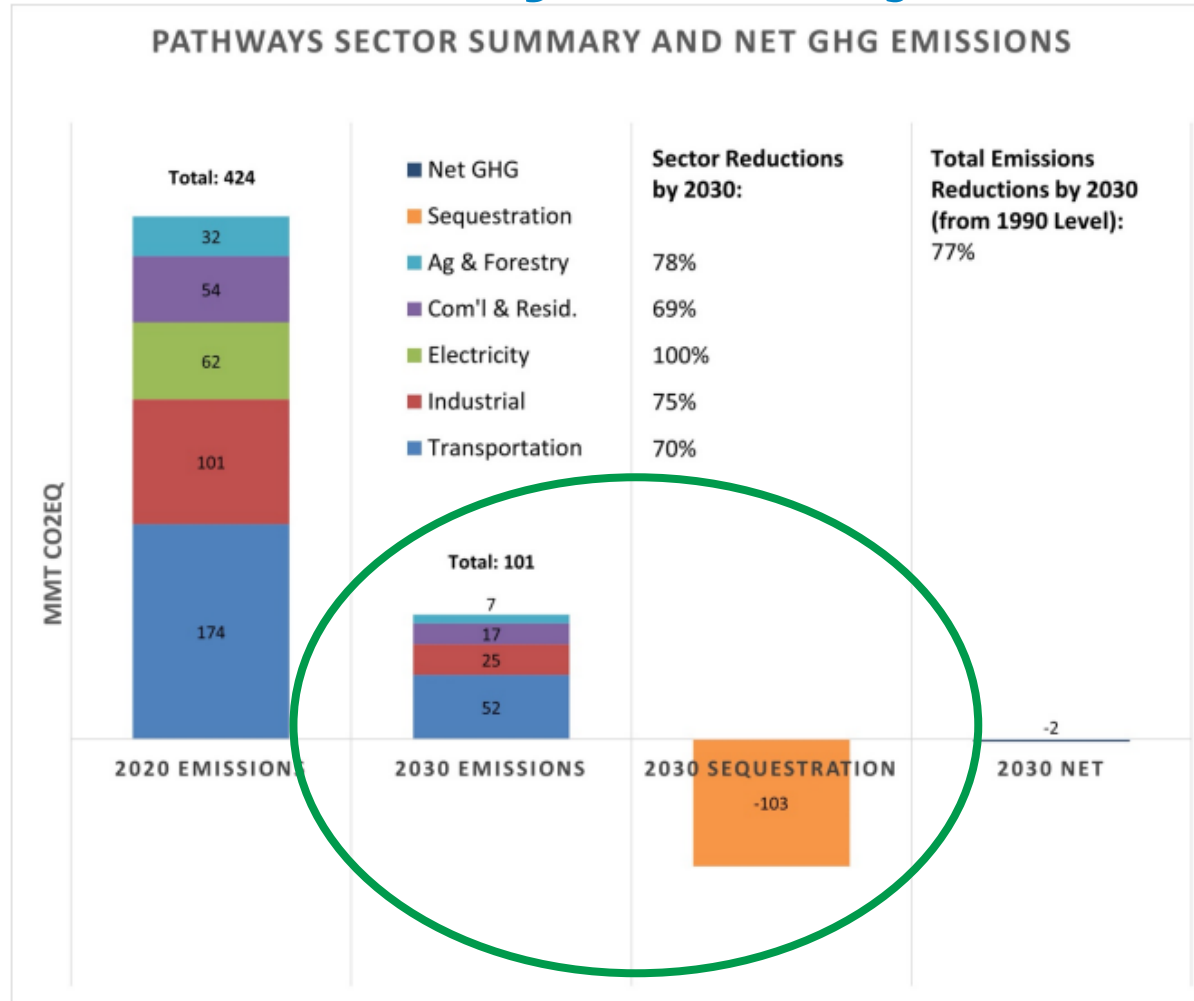
**2045 is too late**

- **Net-negative emissions by 2030** (remove more climate emissions than we emit) (Brown 2018 EO by 2045)
  - **80% below 1990 GHG levels by 2030** (Schwarzenegger 2005 EO by 2050)
  - **Nature-based annual sequestration greater than emissions by 2030**

**Definition:** net negative emissions is achieved when, as a result of human activities, more greenhouse gases are removed from the atmosphere than are emitted into it. – UN IPCC 1.5C Report <https://www.ipcc.ch/sr15/chapter/glossary/>



# One pathway to Net Negative Emissions by 2030: *by sector*



**Figure 2. Pathway of emissions reductions by sector that result in net-negative emissions by 2030. Analysis using The Climate Center GHG Accounting Tool.**

<https://theclimatecenter.org/our-open-source-pathways-model-offers-climate-action-blueprint/>  
<https://arxiv.org/abs/2103.07801>



# Guiding principles for Climate-Safe CA targets, policies and programs

- 1- Based on the **latest science**
- 2- Ensure a **just transition** for fossil fuel workers
- 3- Prioritize **climate justice** and ensure lower-income/BIPOC communities are no longer disproportionately harmed by fossil fuels & equal access to climate solutions



# TYPES OF POLICIES REQUIRED BY SCIENCE TO REACH CARBON NEGATIVE BY 2030

1. Accelerate the phase-out of fossil fuel development, production and use
2. Scale-up nature-based sequestration to 100 MMT/year by 2030 on natural & working lands
3. Invest in community resilience, including clean energy microgrids & storage
4. Fund climate action with \$12-20 billion/year and leverage private sector money

# 1- Accelerate phase out of fossil fuel development, production and use

- Immediately **halt new oil & gas drilling** and infrastructure development
- Invest in public-private efforts to **transition fossil fuel workers to good quality jobs** or early retirement
- **Start plugging abandoned wells**
- **Establish 2 mile health and safety buffer zones around active wells**
- **Secure 100% GHG-free, decentralized electricity & energy storage by 2030**



# Rapidly Transition to Sustainable Mobility

- **Begin phase out of fossil fuel powered vehicles--cars, trucks, buses, ships immediately- eg, cash for clunkers**
- **No new gas powered vehicle registrations by 2030**
- **Flip priorities: invest 80%+ of Caltrans \$ in non-GHG sustainable modes of transportation by 2025**
- **Invest in affordable housing near jobs**
- **Invest in clean mass transit**





# Electrify buildings and increase efficiency; phase out methane gas

- Buildings = ~25% of CA's GHG emissions
- 50 California cities have enacted **methane** gas bans
- Enact 100% electric requirement for all new buildings in 2022 building code update



Electric Induction Stove-Shutterstock

<https://www.curbed.com/platform/amp/2020/2/4/21112234/home-power-range-stove-electrification-natural-gas>

<https://www.sierraclub.org/articles/2021/07/californias-cities-lead-way-gas-free-future>

Embodied Carbon in Construction Calculator-

<https://www.buildingtransparency.org/en/>

<https://www.forbes.com/sites/pikeresearch/2020/02/06/new-solutions-emerge-for-embodied-carbon-in-buildings/#4e65204e5c88>



<http://www.buildingdecarb.org/>

## 2- Increase Sequestration

- **Sequester addl. 100+ MMT CO<sub>2</sub>e annually** in healthy soils, forests and vegetation annually by 2030-- starting no later than 2022
  - **Carbon farming** and gardening
  - **Climate-smart habitat restoration** and management on land/coast
  - **Enhance protected habitats**



Carbon Farming, Marin



Kelp forests



Point Blue STRAW project

<https://www.marincarbonproject.org/carbon-farming>  
<https://www.carboncycle.org/carbon-farming/>  
<https://www.pointblue.org/our-work/restoration/>

# Carbon farming on working land potential sequestration at scale

20+ m acres = ~100 MMT/year CO<sub>2</sub>e by 2030

## CARBON FARM PLANNING in Marin

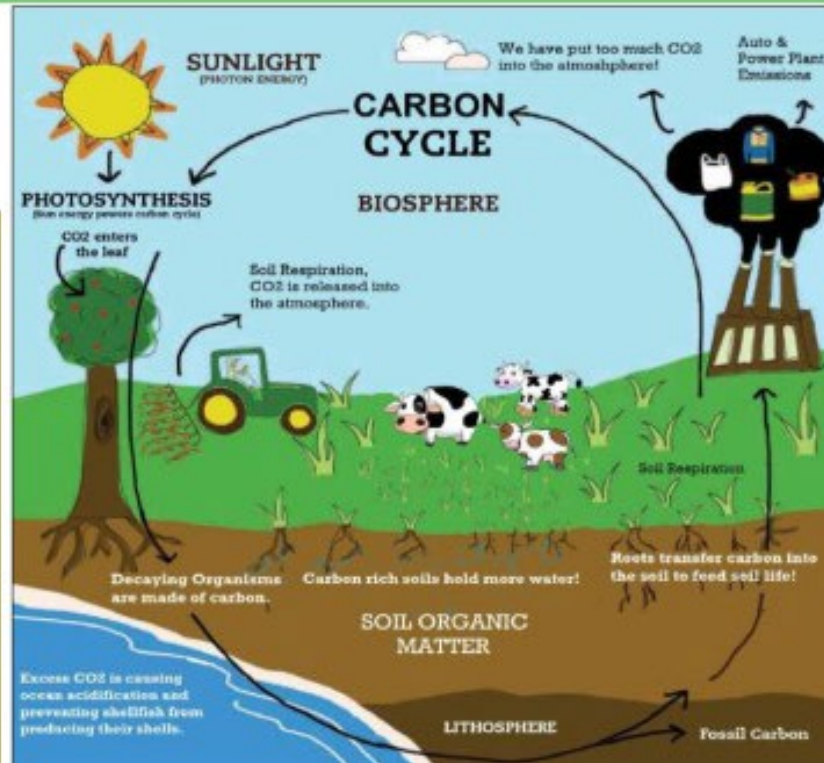
**Assistance is available for farmers and ranchers!**

Plan for carbon sequestration and climate adaptation conservation practices with Marin RCD!

### Potential List of Conservation Practice(s)\* in a Carbon Farm Plan:

- Compost Application • Anaerobic Digester
- Silvopasture/ Shrub & Tree Establishment
  - Windbreak/ Shelterbelt/ Hedgerow
  - Riparian and Wetland Restoration
  - Filter Strips • Grassed Waterways
    - Forage & Biomass Planting
    - Rangeland Management
- Prescribed Grazing and Range Planting
  - Nutrient Management
- Residue & Tillage Management, No-Till
  - Cover Crops

\*NRCS Standard Conservation Practices



## Carbon Cycle Institute

### MARIN CARBON PROJECT



Marin est cost of roughly \$500/acre-- \$10.5 billion for 21M acres over 10 years with multiple co-benefits for resilience, water, biodiversity and more



# Riparian restoration potential at scale

Major potential for CO<sub>2</sub>e sequestration and other benefits for water, food security, biodiversity and resilience



See Point Blue: <https://www.pointblue.org/our-work/restoration/>. Photo: Point Blue's STRAW program; Lewis, D.J., et al. 2015. Creek carbon: Mitigating GHGs through riparian restoration. UC Coop Ext, Marin County. Novato, CA. 26 pgs. [http://ucanr.edu/sites/Grown\\_in\\_Marin/files/224684.pdf](http://ucanr.edu/sites/Grown_in_Marin/files/224684.pdf);

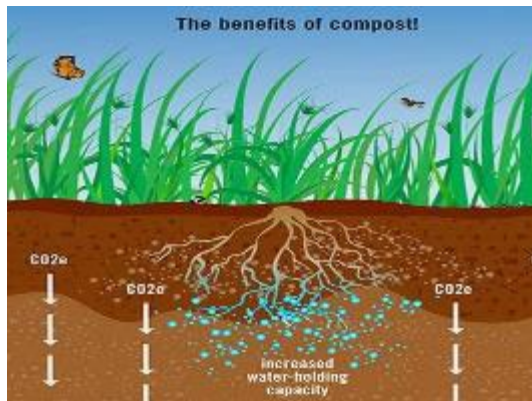
# Nature-based sequestration-- *not* technological carbon removal-- by 2030



**✗ Carbon Capture and Storage (CCS):**  
to remove CO<sub>2</sub> from power plants and industrial processes, placing the CO<sub>2</sub> into long-term storage



**? Direct Air Capture (DAC):**  
extracts the CO<sub>2</sub> from the air by pulls air through filters where it reacts with chemicals and is stored or used



**✓ Nature-based sequestration (NbS):**  
absorption of CO<sub>2</sub> in natural media like trees, plants, soil, oceans, and other natural or biological settings.

<https://theclimateconnection.org/carbon-capture-and-storage-pros-cons/>  
<https://www.treehugger.com/carbon-capture-and-storage-ccs-pros-and-cons-5120005>



# 3- Invest in Community Resilience

- **Fund implementation of resilience plans** in all California counties and cities by 2025 (SB379)
- **Establish Community Resilience Hubs**



<https://microgridknowledge.com/tribal-microgrid/>


# Let's create a decentralized and integrated power grid

## Community Energy Resilience



**1000s of local electricity systems,  
linked over the “macro grid”**

# Community Energy Resilience



Clean, Affordable, Resilient, Equitable and Safe



# Scale up mobile power storage

CA's school bus fleet = 24,200

If all-electric, could store  $\sim\frac{1}{4}$  of peak electricity usage & help clean the air



150 kW battery packs per bus; 24,200 times 150 kW = 3600 MW, i.e. about  $\frac{1}{4}$  of the evening duck curve ramp



# 4- Fund climate action

Institute **equitable funding strategies** to produce **additional ~\$12-20+ billion/year** specifically for climate action, such as:

- **Regulatory changes** that open markets *so private investments pay for much of what's needed & expedite use of **federal green stimulus funds***
- **Per Passenger/Parcel Fee** e.g., \$2.4 billion/yr *from \$10 per passenger x 240 million (CA in 2018)*
- **Ballot measures** e.g., \$30 Billion 2022 climate ballot measure for transportation & other sectors over 10 years
- **Progressive Carbon Fees, Feebates**
- **Green climate bonds**
- **Close tax loopholes & upgrade tax code**





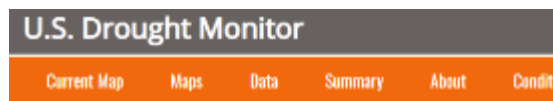
# The suite of solutions and technologies exists today for California to enact now



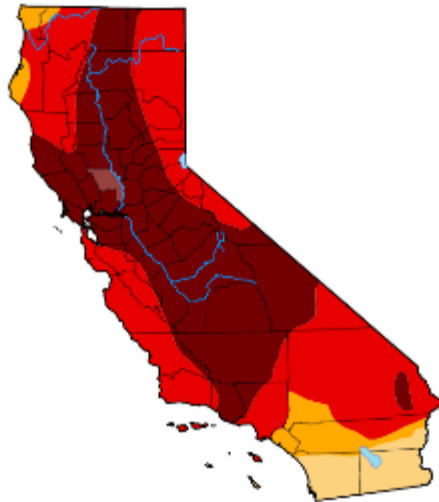
# Backed up by science:

## “Accelerating the Timeline for Climate Action in California”

Kammen et al Mar 2021



California



Sept 9 2021

[https://droughtmonitor.unl.edu/data/pdf/current/ca\\_trd.pdf](https://droughtmonitor.unl.edu/data/pdf/current/ca_trd.pdf)

### Accelerating the timeline for climate action in California

[Daniel M Kammen](#), Teenie Matlock, Manuel Pastor, David Pellow, Veerabhadran Ramanathan, Tom Steyer, Leah Stokes, Feliz Ventura

The climate emergency increasingly threatens our communities, ecosystems, food production, health, and economy. It disproportionately impacts lower income communities, communities of color, and the elderly. Assessments since the 2018 IPCC 1.5 Celsius report show that current national and sub-national commitments and actions are insufficient. Fortunately, a suite of solutions exists now to mitigate the climate crisis if we initiate and sustain actions today. California, which has a strong set of current targets in place and is home to clean energy and high technology innovation, has fallen behind in its climate ambition compared to a number of major governments. California, a catalyst for climate action globally, can and should ramp up its leadership by aligning its climate goals with the most recent science, coordinating actions to make 2030 a point of significant accomplishment. This entails dramatically accelerating its carbon neutrality and net-negative emissions goal from 2045 to 2030, including advancing clean energy and clean transportation standards, and accelerating nature-based solutions on natural and working lands. It also means changing its current greenhouse gas reduction goals both in the percentage and the timing: cutting emissions by 80 percent (instead of 40 percent) below 1990 levels much closer to 2030 than 2050. These actions will enable California to save lives, benefit underserved and frontline communities, and save trillions of dollars. This rededication takes heed of the latest science, accelerating equitable, job-creating climate policies. While there are significant challenges to achieving these goals, California can establish policy now that will unleash innovation and channel market forces, as has happened with solar, and catalyze positive upward-scaling tipping points for accelerated global climate action.

Comments: 13 pages, 2 figures

Subjects: **Systems and Control (eess.SY)**

Cite as: [arXiv:2103.07801 \[eess.SY\]](#)

(or [arXiv:2103.07801v1 \[eess.SY\]](#) for this version)

#### Submission history

From: Daniel Kammen [[view email](#)]

[v1] Sat, 13 Mar 2021 21:59:00 UTC (875 KB)

<https://arxiv.org/abs/2103.07801>

Secured extensive media covering including in the LA Times: [An Earth Day message for California: Move faster on climate change.](#)

# SB 582 (Stern): Climate Emergency Mitigation, Safe Restoration, and Just Resilience Act of 2021

## Would establish:

- ~~state's first-ever statutory net-negative emissions goal, with a target date of 2035~~
- ~~80% below 1990 levels by 2030~~
- ~~Just Resilience Plan to drive urgently needed investments in California's most vulnerable communities~~
- **Establish "carbon removal" goal before 2035**

**Gutted in Senate Approps**



# SB 99 (DODD): Plan and prioritize Clean Energy Resilience for communities that suffer most from air pollution and outages

Creates a new CEC program to support local governments in vulnerable communities to plan local energy systems and microgrids for decarbonization, resilience, equity

**UNANIMOUS VOTE  
IN SENATE!**  
**Killed in Assembly**





# But Governor Newsom heard us: ordered Air Resources Board to evaluate pathways to carbon neutral by 2035, 10 years ahead of current law!

July 9, 2021



<https://www.gov.ca.gov/2021/07/09/governor-newsom-holds-virtual-discussion-with-leading-climate-scientists-on-states-progress-toward-carbon-neutrality/>

Also asked CPUC to establish a more ambitious greenhouse gas emissions target for electricity procurement by 2030



# Secured \$200m from CPUC for microgrids in most vulnerable communities

*Microgrid Equity Coalition convened by The Climate Center*



CALIFORNIA  
ENVIRONMENTAL  
JUSTICE ALLIANCE



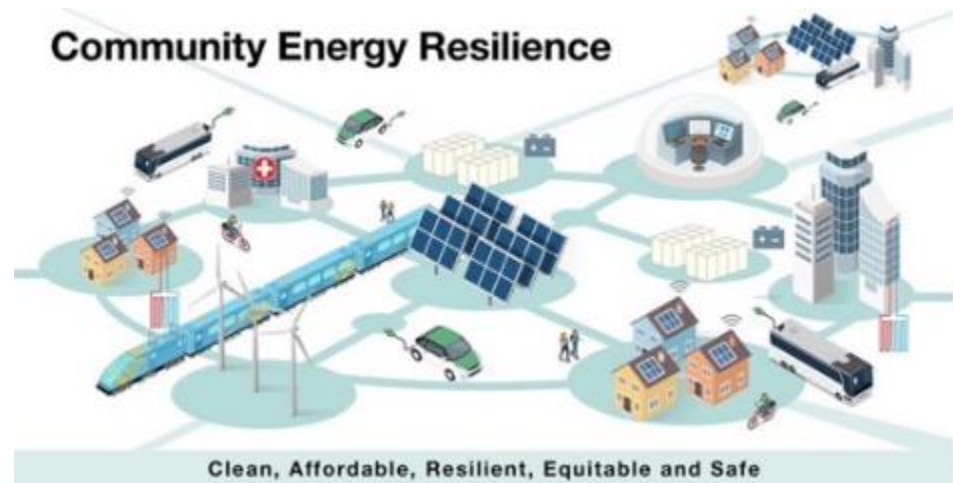
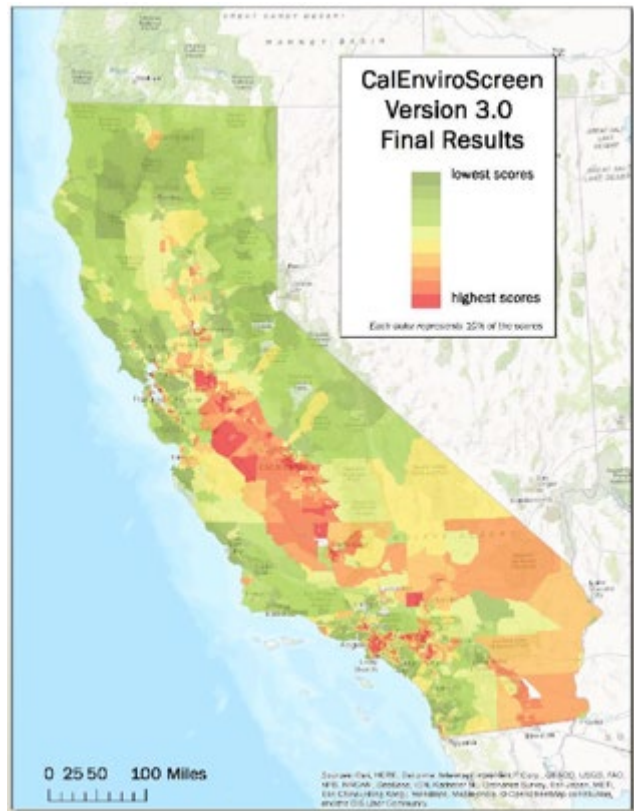
VOTE SOLAR



GRID  
ALTERNATIVES



SIERRA  
CLUB



## **SB 27 (Skinner) signed into law**

**Requires state to set natural & working lands sequestration goals for 2030 and beyond**



# CHALLENGE: Bold, Equitable Climate Legislation Stymied in Sacramento

<https://theclimatecenter.org/our-work/legislation/>



<https://capitalandmain.com/california-oil-industry-continues-to-thwart-climate-related-bills>



**Our house is on fire. Ask at every level  
of society: are we doing enough?**



# Endorse Climate-Safe California

## [www.climatesafeca.org](http://www.climatesafeca.org)



Climate-Safe California  
Rapid Decarbonization Campaign  
Endorsement Platform

89 elected/governments, 112 businesses, 142 organizations, 1,000+ individuals = 1400+

- Public pledge of support for California to accelerate aggressive climate policy
- Inspiring states and countries to greater action for a climate-safe Earth

[www.theclimatecenter.org](http://www.theclimatecenter.org)





# Carmen Ramirez

Ventura County Supervisor



**“This is urgent and desperately needed. Also urgent is a just transition and safety net for those working in the fossil fuel industry. We must not leave people behind as seen in the coal industry.”**

<https://theclimatecenter.org/endorsementlist/>

**Governments & policymakers  
are like sailboats. They go nowhere without  
wind. We are the wind in their sails!**





**One person can make a difference!**





**Together we make an even bigger difference!!**

# Positive Tipping Points

- Growing youth movement
- UK decarbonizing its electricity faster than any other major economy
- Norway – EVs are 80% of new cars today, AND...



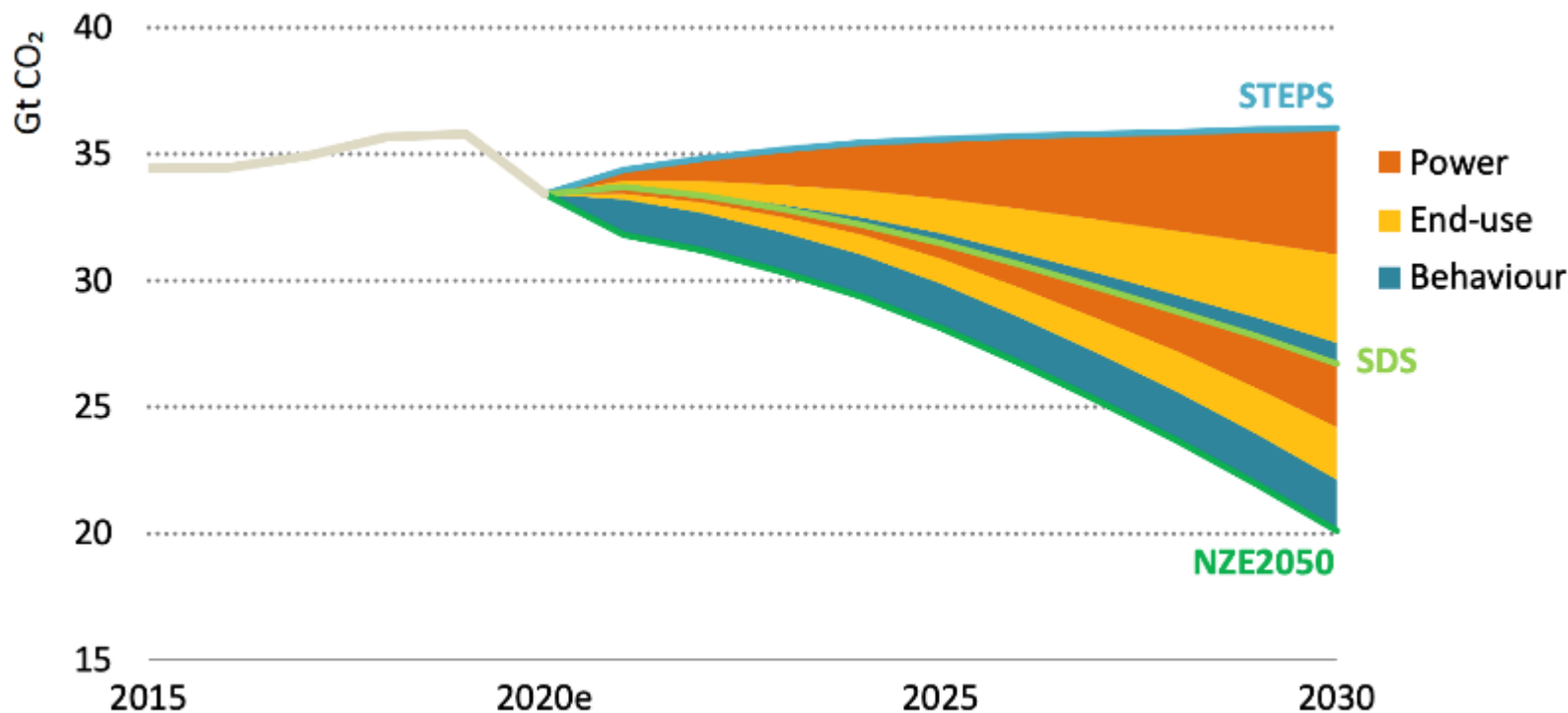
Simon Sharpe, Timothy M. Lenton. **Upward-scaling tipping cascades to meet climate goals: plausible grounds for hope.** *Climate Policy*, 2021; 1 DOI: [10.1080/14693062.2020.1870097](https://doi.org/10.1080/14693062.2020.1870097)

<https://www.reuters.com/business/autos-transportation/tesla-pushes-norways-ev-sales-new-record-2021-10-01/>



# SOLAR NOW CHEAPEST ELECTRICITY GLOBALLY

CO<sub>2</sub> emissions from coal-fired power stations  
projected to decline by 75% between 2019 and 2030



<https://www.carbonbrief.org/solar-is-now-cheapest-electricity-in-history-confirms-iea> Oct 13 2020

[U.S. renewable energy consumption surpasses coal for the first time in over 130 years](https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_es1a) May 28 2020

<https://pvbuzz.com/renewables-produce-more-electricity-than-coal/> Apr 27 2020

[https://www.eia.gov/electricity/monthly/epm\\_table\\_grapher.php?t=epmt\\_es1a](https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_es1a)

# Exxon no longer on the Dow, likely past peak oil production (BP), and....

- **Royal Dutch Shell-** ordered by court to dramatically cut its emissions (45%) by 2030
- **Chevron-** 61% of shareholders demanded emissions cuts
- **ExxonMobil-** two activist shareholders elected to board for first time



*It's clear that the arguments that many have been making for a decade have finally sunk in at the highest levels: there is no way to evade the inexorable mathematics of climate change. Photograph by Erik McGregor / Sipa / Alamy*

<https://www.cnbc.com/2020/08/25/exxon-mobil-replaced-by-a-software-stock-after-92-years-in-the-dow-is-a-sign-of-the-times.html><https://www.forbes.com/sites/feliciajackson/2020/09/17/past-the-peak-a-new-reality-for-oil/?sh=b2d3fcd5fe2d>  
<https://www.newyorker.com/news/annals-of-a-warming-planet/big-oils-bad-bad-day>

# “Green finance goes mainstream”

WSJ 5/22/21

- >\$5 billion in bonds and loans to fund green initiatives are now issued every day
- Two biggest U.S. banks pledged \$4 trillion in climate-oriented financing over the next decade



# Climate Prosperity

**“Climate Change is the largest wealth-creation opportunity of our lifetime.”**

**--Jigar Shah, Dept. of Energy**

Jigar Shah founded SunEdison

- pioneered “no money down solar”
- unlocked a multi-billion-dollar solar market
- Created the largest solar services company worldwide

<https://www.energy.gov/lpo/person/jigar-shah>





# CA first state to reach net negative emissions

Kickstarts nation & world into equitable climate action

December 2030





# Thank you!

[ellie@theclimatecenter.org](mailto:ellie@theclimatecenter.org)  
[www.theclimatecenter.org](http://www.theclimatecenter.org)

