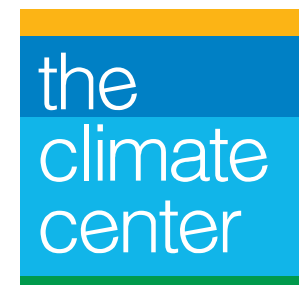




CARBON 101:

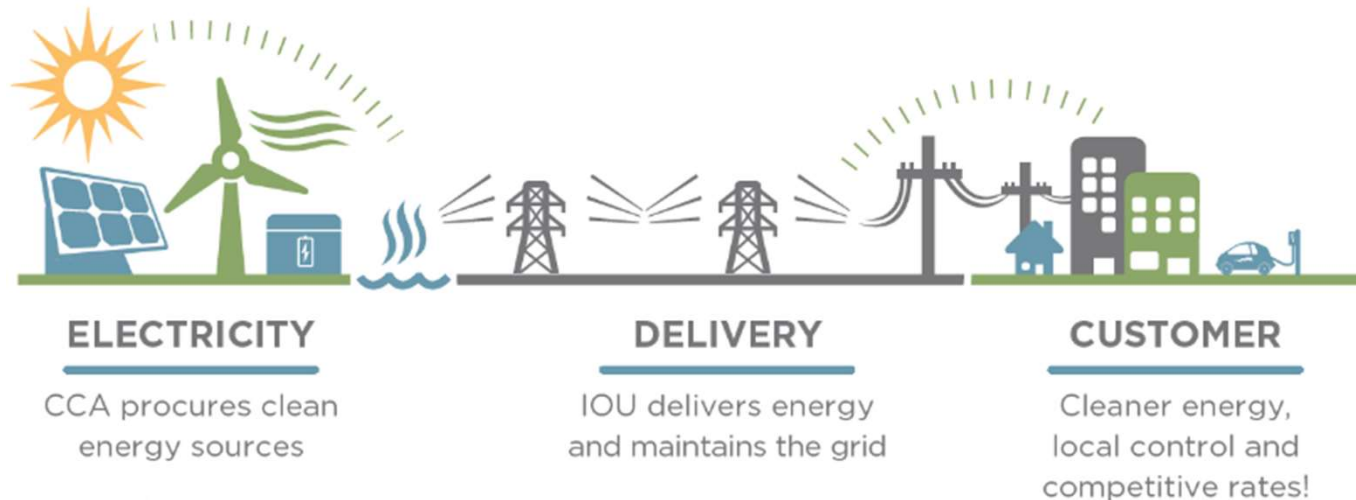
the underlying science of carbon sequestration

Torri Estrada and Jeff Creque, PhD
Carbon Cycle Institute



Carbon Cycle Institute

Mission: Speed and scale greenhouse gas reductions



**Key role in growing Community Choice Energy:
21 CCAs serving 11 million Californians- ¼ of
state- with 88% clean energy today!**

<https://theclimatecenter.org/our-work/community-choice/>
<https://cal-cca.org/cca-impact/>

..... Sunday

Los Angeles Times

\$3.66 DESIGNATED AREAS HIGHER © 2020 WST †† SUNDAY, SEPTEMBER 13, 2020 latimes.com

California's climate apocalypse

Fires, heat, air pollution: The calamity is no longer in the future — it's here, now

Oregon residents standing ground

BY RICHARD READ,
MOLLY HENNESSY-FISKE
AND MELISSA ETEHAD

MOLALLA, Ore. —
Christine VanOeveren grab-



BY SUSANNE RUST
AND TONY BARBOZA

In 2001, a team of international scientists projected that during the next 100 years, the planet's inhabitants would witness higher maximum temperatures, more hot days and heat waves, an increase in the risk of forest fires and "substantially degraded air quality" in large metropolitan areas as a result of climate change.

In just the past month, nearly two decades after the third United Nations Intergovernmental Panel on Climate Change report was issued, heat records were

Governor Newsom, Sept. 11, 2020:
“We are in a climate emergency” “We must fast-track goals”
“our goals are inadequate”

New Exec Orders: 100% ZEV new car sales by 2035 & protect 30% of land and waters by 2030.... **But....**



<https://www.gov.ca.gov/2020/09/23/governor-newsom-announces-california-will-phase-out-gasoline-powered-cars-drastically-reduce-demand-for-fossil-fuel-in-californias-fight-against-climate-change/> Sept. 23 2020
<https://calmatters.org/environment/2020/09/california-governor-climate-emergency/> Sept. 11 2020

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



CLIMATE-SAFE CALIFORNIA

Accelerate existing state goals
to achieve by 2030:

- 80% below 1990 GHG levels
- Net-negative emissions (*sequestration greater than emissions, CA becomes net carbon sink*)

Endorse here: www.climatesafeca.org



KEY POLICIES REQUIRED BY SCIENCE TO REACH NET-NEGATIVE EMISSIONS BY 2030

1. Accelerate the phase-out of fossil fuel development, production and use
2. Increase sequestration to 100 MMT/year by 2030 on natural and 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

www.climatesafeca.org

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 communities are no longer disproportionately harmed by fossil fuels



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



CHALLENGE: 30 ENDORSEMENTS

CLIMATE-SAFE CALIFORNIA

www.climatesafeca.org



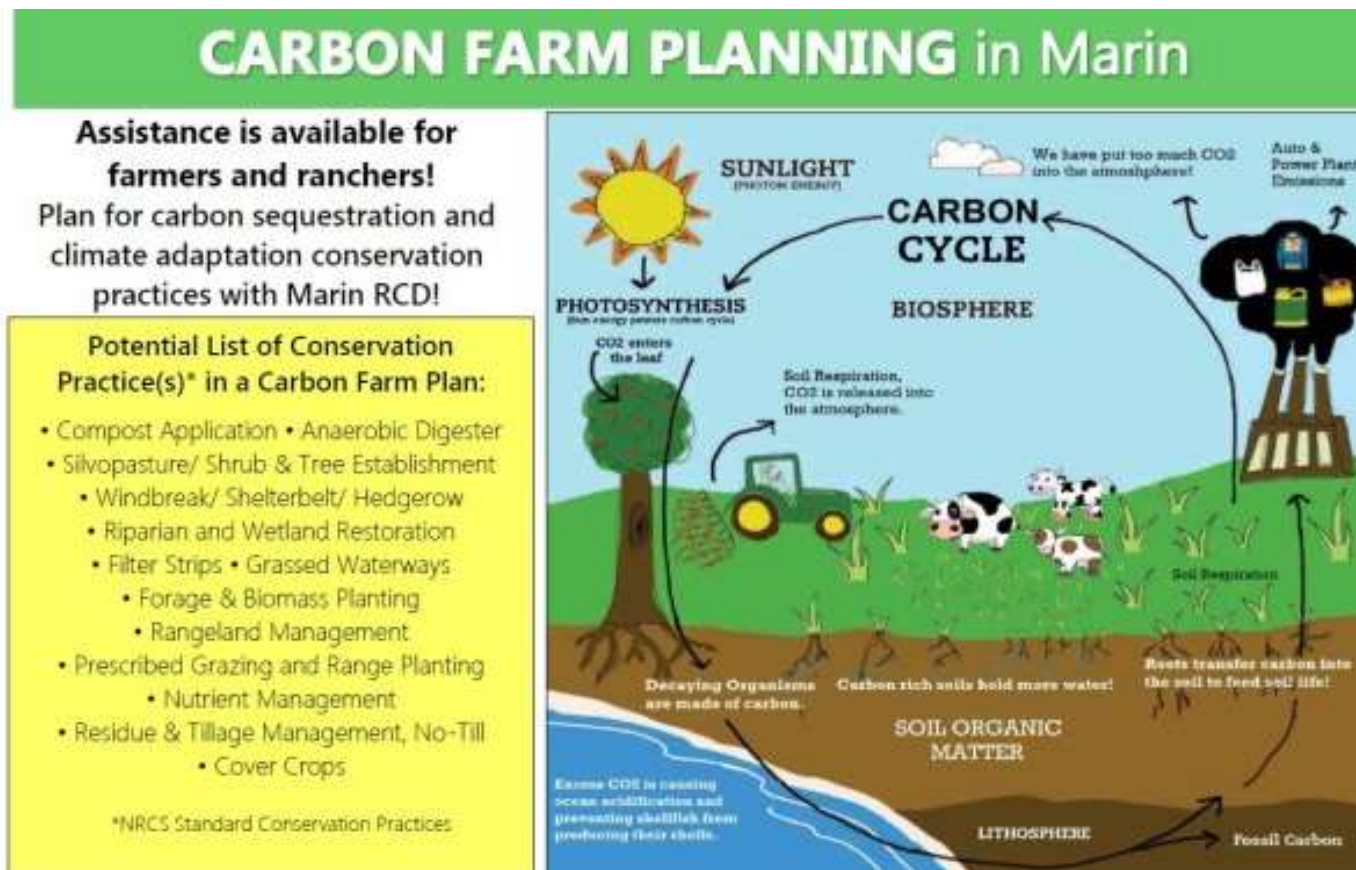
Climate-Safe California
Rapid Decarbonization Campaign
Endorsement Platform

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

www.theclimatecenter.org/endorsement



Carbon farming on working land potential sequestration at scale



MARIN CARBON PROJECT

Carbon Cycle Institute



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

Carbon 101: the underlying science of carbon sequestration



Torri Estrada

Executive Director and Director of Policy

- worked with non-profit, community-based, and public institutions to advance solutions to social and environmental justice, climate, and environmental issues for 20+ years
- Formerly program director at Marin Community Foundation managing environmental grantmaking and MCF's climate change initiative
- MS in Environmental Sociology and Policy (emphasis on environmental justice), University of Michigan
- Joint BS/BA degree in Environmental Science and Policy, and Ecological Anthropology, UC Berkeley.



Jeff Creque

Director of Rangeland and Agroecosystem Management

- Co-founder of the Marin Carbon Project
- Agricultural and rangeland consultant
- Natural Resources Conservation Service certified nutrient management planning specialist.
- PhD, Rangeland Ecology, Utah State University
- CA State Board of Forestry Certified Professional in Rangeland Management