

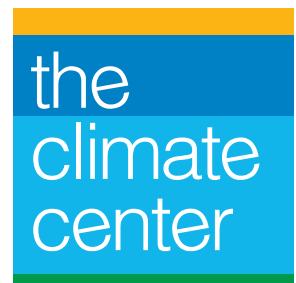


Climate-Safe California: accelerating climate action

Maximizing Benefits from
Climate Investments

Thursday, December 16, 2021

Ellie Cohen and team



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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 CO₂e 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 6th Assessment Report*



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

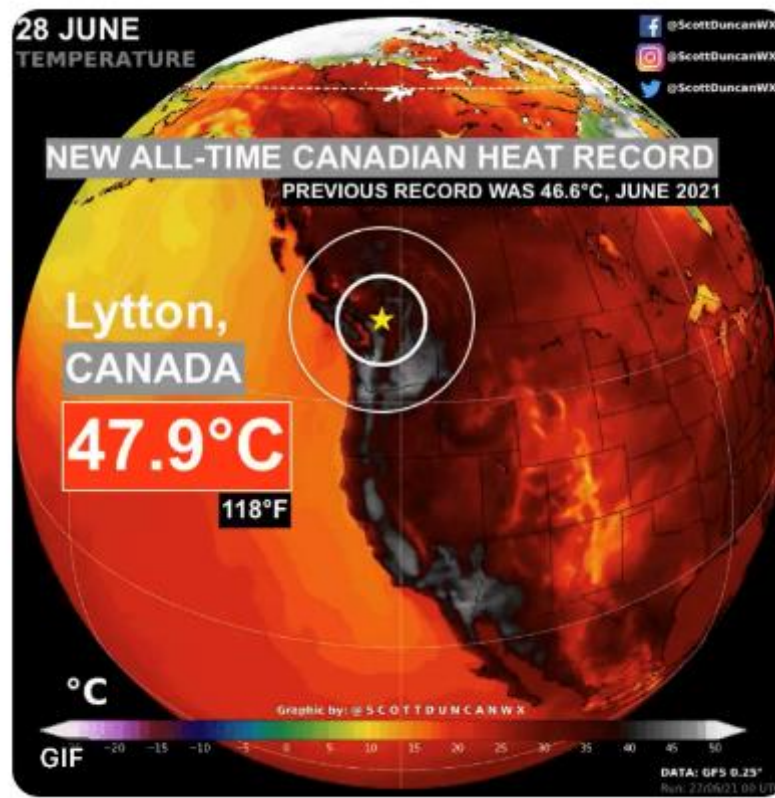
<https://www.reuters.com/business/environment/un-sounds-clarion-call-over-irreversible-climate-impacts-by-humans-2021-08-09/>

<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>

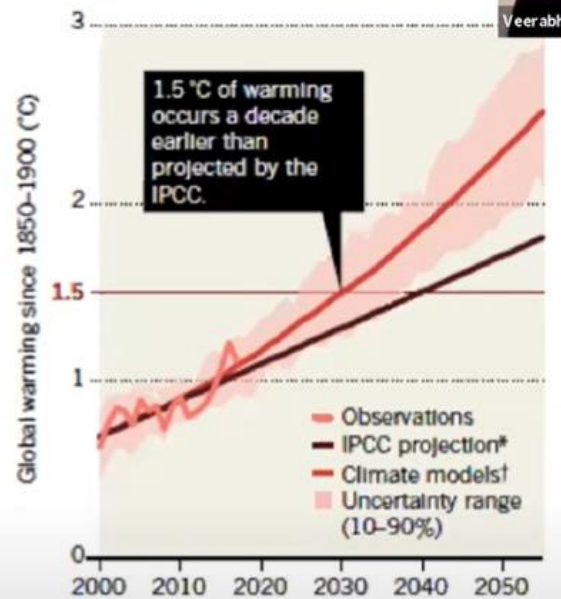
Will pass 1.5°C dangerous warming by 2030 10 years earlier than UN IPCC projected

Global warming will happen faster than we think

Three trends will combine to hasten it, warn Yangyang Xu, Veerabhadran Ramanathan and David G. Victor.

ACCELERATED WARMING

Climate simulations predict that global warming will rise exponentially if emissions go unchecked



Xu, Y., et al, **Global Warming will Happen Faster than We Think**, Nature Dec 2018, 564(7734):30-32

DOI: [10.1038/d41586-018-07586-5](https://doi.org/10.1038/d41586-018-07586-5)

MoveCA Zoomposium, Jan 21 2021, <https://www.youtube.com/watch?v=T3IOX5ru0BI&t=12s> (at 16 min in)

Hébert, R. et al. *Climate Dynamics*, 2020; DOI: [10.1007/s00382-020-05521-x](https://doi.org/10.1007/s00382-020-05521-x)

CA impacts: personal communication with V. Ramanathan, Scripps/UC San Diego

Non-linear difference between 1.5C and 2C warming

"For every increment of global warming, changes in extremes become larger"

"Warming has doubled since first COP"

"Warming will likely double over next two decades ..."

At 1.1-1.2C now

On track for catastrophic climate chaos...

- *Sognnaes et al (Nature Climate Change, Nov 22 2021):*
 - **All pledges put together still result in 2.2 to 2.9 C of warming**
 - High end to 3.8°C including uncertainty in climate response
- *Climate Action Tracker (Nov 9 2021):*
 - On track for 2.4 C warming
- *UNEP (Oct 27 2021)*
 - Updated pledges on track for 2.7 C warming



The Need for Speed, Methane Pavilion, COP26: Profession Tim Lenton, Univ of Exeter & Pam Pearson, Intl Cryosphere Initiative <https://www.youtube.com/watch?v=MoUcjGbSifM>

- <https://www.scientificamerican.com/article/climate-pledges-still-not-enough-to-keep-warming-below-2-degree-limit/>
- <https://www.nature.com/articles/s41558-021-01206-3.epdf>
- <https://climateactiontracker.org/publications/glasgows-2030-credibility-gap-net-zeros-lip-service-to-climate-action/>
- <https://www.unep.org/resources/emissions-gap-report-2021>

Climate inaction/delay is bankrupting our economy

- **Fed Reserve:** banks must consider climate risks
- **Threatens** insurance & mortgage markets, pension funds, and other financial institutions
- **\$150 Billion in damages from 2018 CA wildfires**; \$80 Billion in 2019
- **\$80 billion invested in California will generate ~725,000 jobs**
- Investments in **clean energy** generate more than **2x the jobs as in fossil fuels**



<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

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

Investing in GHG reduction creates jobs and builds the economy

- \$2.2 billion from CA's Cap-and-Trade Program supported direct employment of 36,106 job years from 2013-2016
- 54% of the jobs were in building trades
- 11% in architecture and engineering, 10% in transportation

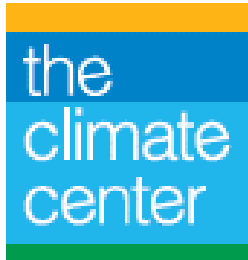


J.R. DeShazo et al. **Employment Benefits from California Climate Investments and Co-Investments.** UCLA Luskin Center for Innovation. Aug, 2018. <https://innovation.luskin.ucla.edu/publication/employment-benefits-from-california-climate-investments-and-co-investments/>

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

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** (drawdown greater than emissions) (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/>



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

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 and impacted communities
- 3- Prioritize **climate justice** and ensure lower-income/BIPOC communities are no longer disproportionately harmed by fossil fuels & equal access to climate solutions



Governor Newsom heard us: ordered Air Resources Board to evaluate pathways to carbon neutral by 2035, 10 years ahead of current law- but still need more

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

Endorse Climate-Safe California today!

www.climatesafeca.org



**California can remove
more climate pollution
than we emit by 2030**

Learn more about our campaign
for a healthy, hopeful & equitable
future at www.climatesafeca.org

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center