

Climate Change in California and Placer County

and what you can do about it





Citizens' Climate Lobby

Vision: Create the political will for a livable world.

Mission: Work to pass federal legislation that dramatically reduces greenhouse gas emissions while protecting low-income households.

The Ten Hottest Years on Record Have Been the Last Ten Years

2023

2020

2016

2019

2017

2022

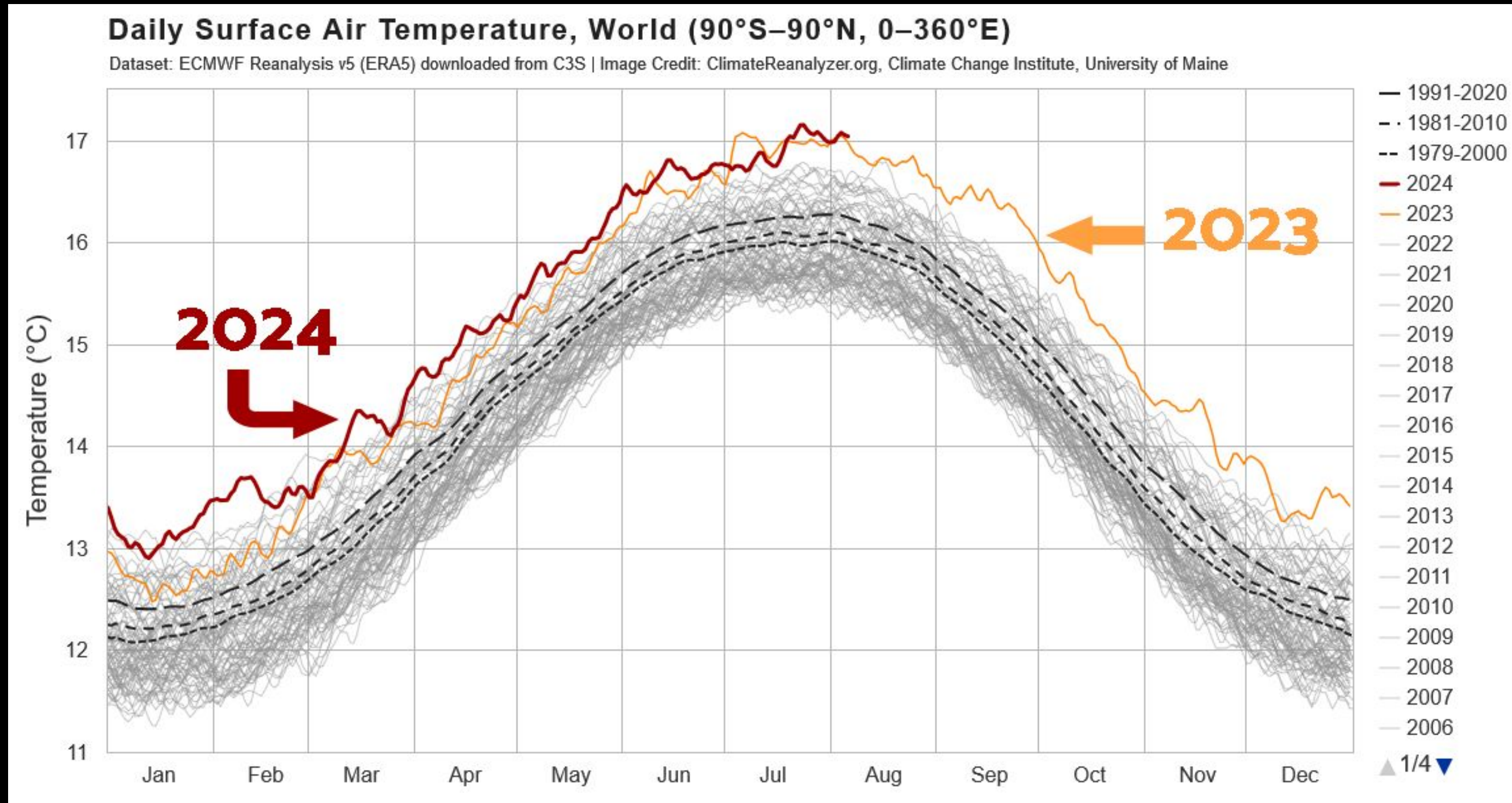
2015

2021

2018

2014

This year is likely to be even hotter.



**July's average temperature
across the Golden State was
81.7F degrees, surpassing the
prior record from July 2021 by
almost two degrees.**

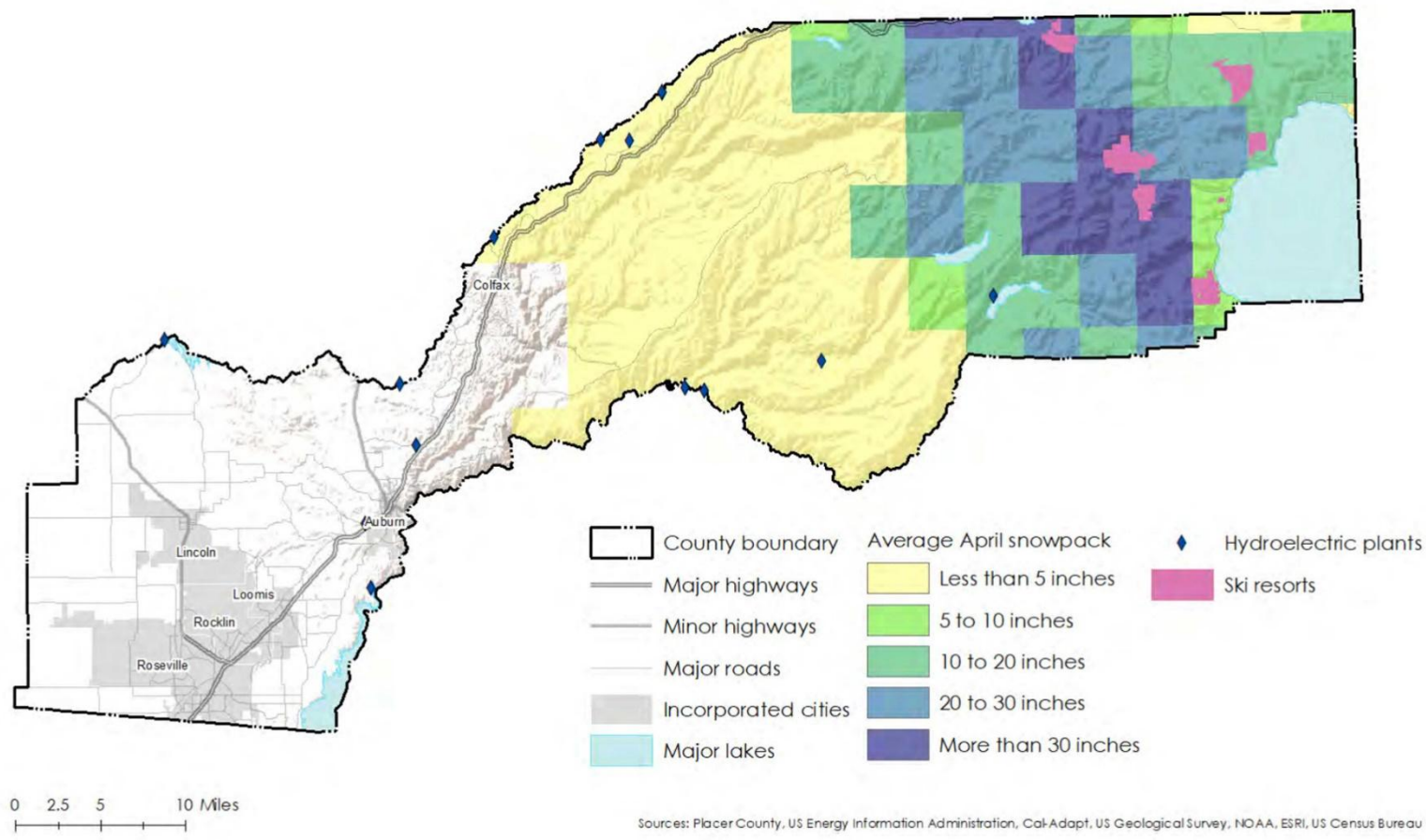
**June 23 – July 12, 2024 was the
hottest 20-day period
in Sacramento history,
with an average
temperature of 103.8 F.**

Placer County could experience **nearly two months a year** of extreme heat by 2100

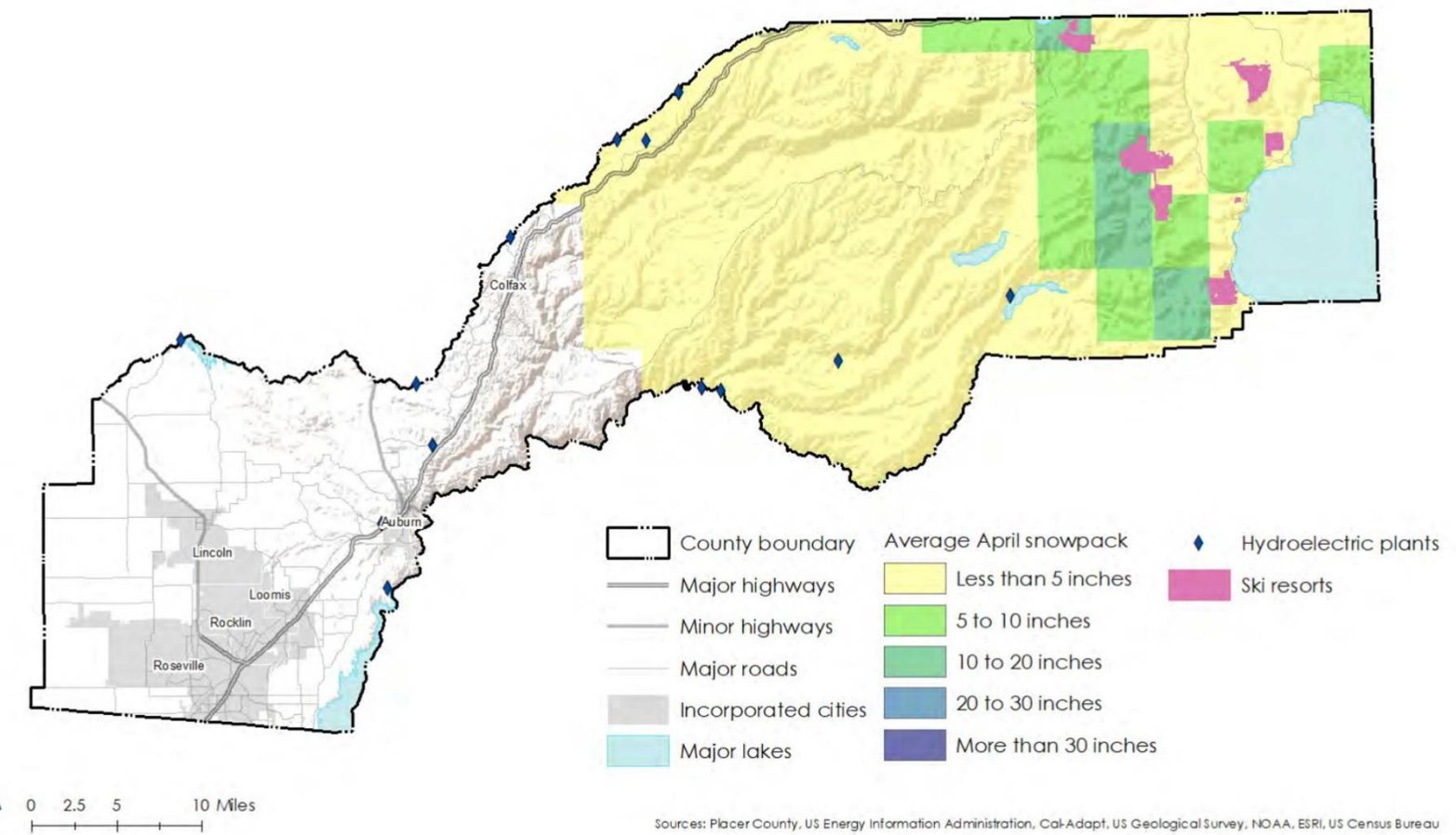
COMMUNITY	EXTREME HEAT THRESHOLD (F°)	NUMBER OF HISTORICAL EXTREME HEAT DAYS	NUMBER OF EXTREME HEAT DAYS (2040–2060)		NUMBER OF EXTREME HEAT DAYS (2070–2099)	
			MEDIUM GHGS (RCP 4.5)	HIGH GHGS (RCP 8.5)	MEDIUM GHGS (RCP 4.5)	HIGH GHGS (RCP 8.5)
Granite Bay	104.6	4.3	23	30	33	53
Penryn	104.1	4.3	24	32	35	56
Sheridan	105.0	4.3	25	32	37	59
Meadow Vista	100.8	4.3	22	31	35	58
Foresthill	99.3	4.3	22	30	34	58
Alta	94.3	4.2	23	30	35	62
Tahoe City	82.1	4.2	22	31	36	61

Snowpack in the Sierras could become virtually non-existent

Map 2-4 Snowpack Levels (Historic, 1994-2013)



Map 2-6 Snowpack Levels (End Century, 2070-2099, RCP 8.5 scenario)



**“The Northern Sierras –
a primary water source
for the Sacramento Valley –
are expected to have
almost no annual snowpack
by the end of this century.”**

- California’s Fourth Climate Change Assessment

Hotter Years Typically Have More Fires

Western U.S. Large Fires and May – September Temperatures

Average Temperature (°F)

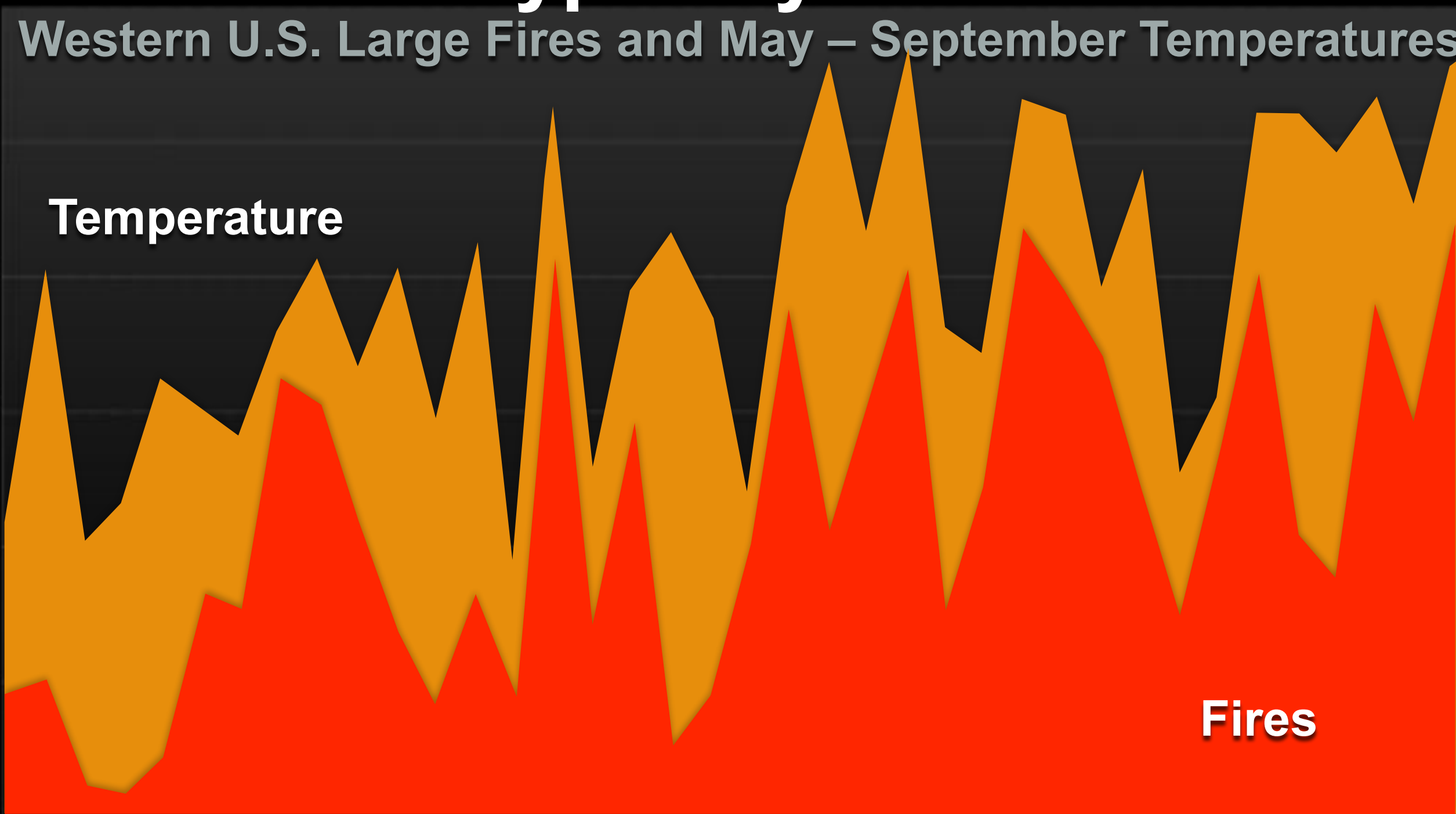
Temperature

Number of Large Fires

Fires

67.0°
66.0°
65.0°
64.0°
63.0°
62.0°
61.0°

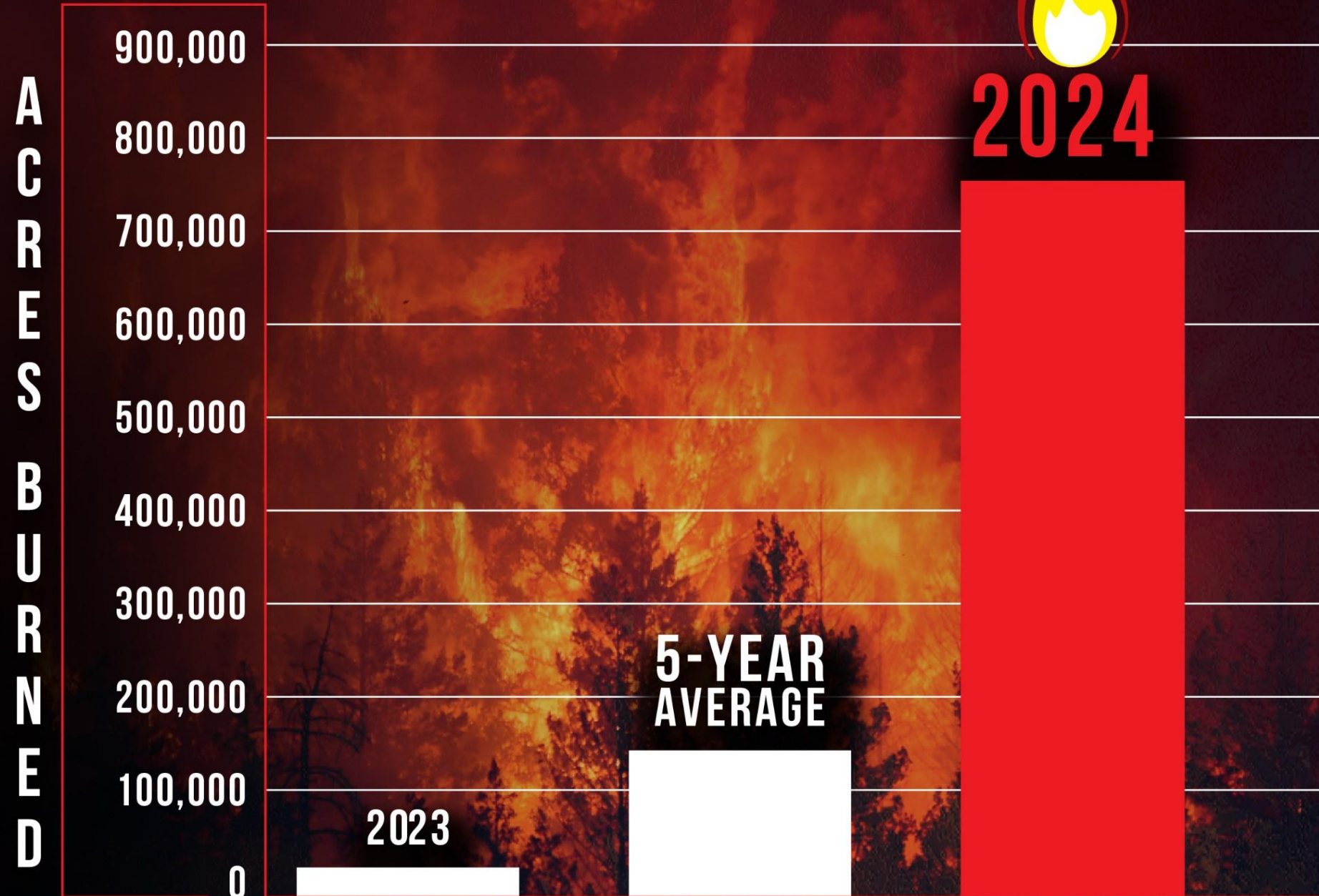
1980 1985 1990 1995 2000 2005 2010 2015 2018





WILDFIRE STATS

YTD THROUGH JULY 30, 2024
(CAL FIRE & FEDERAL COMBINED)



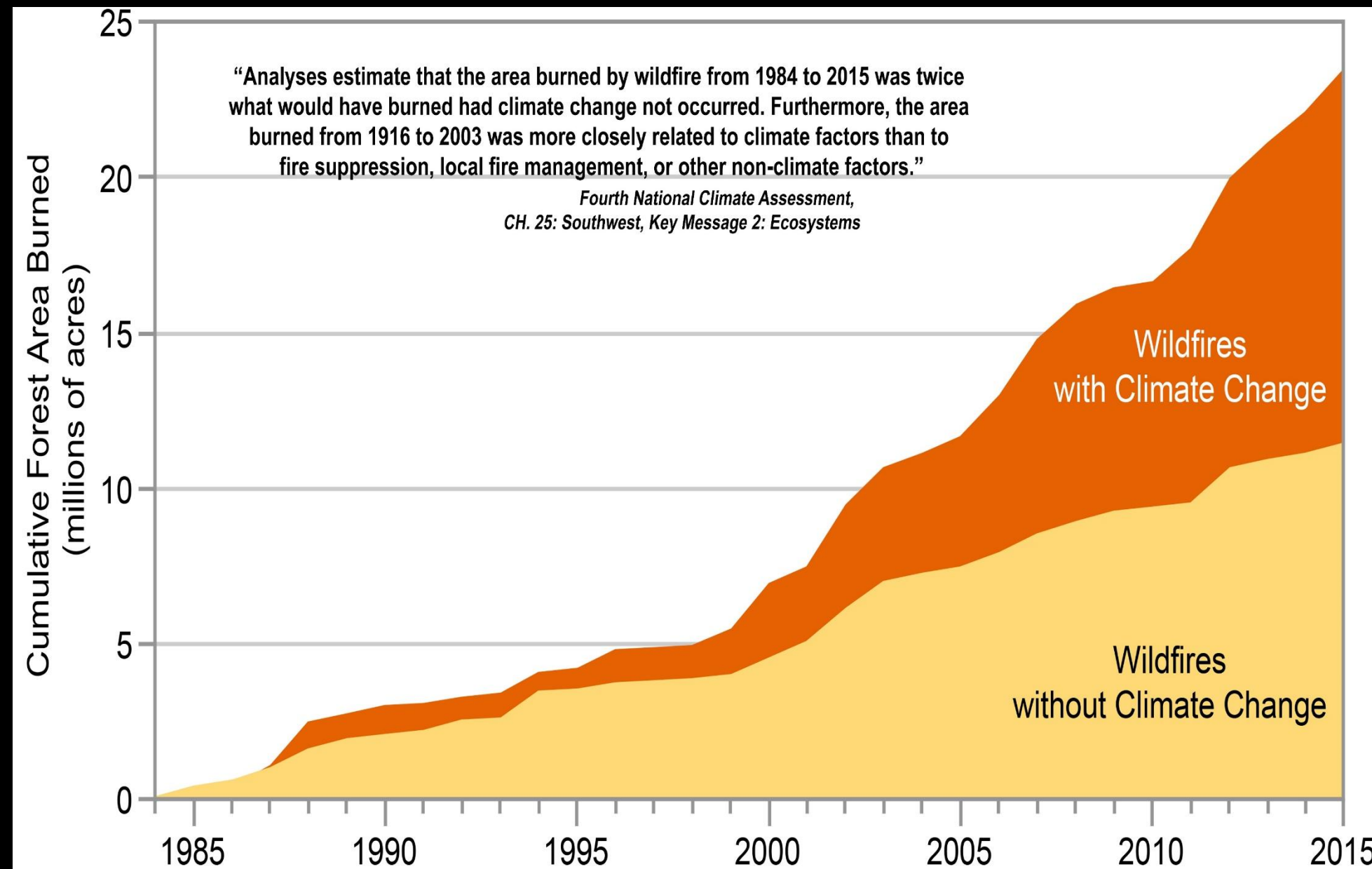
*PRELIMINARY NUMBERS
AND SUBJECT TO CHANGE.

3,746 FIRES
25,763 ACRES

4,416 FIRES
140,996 ACRES

4,613 FIRES
751,327 ACRES

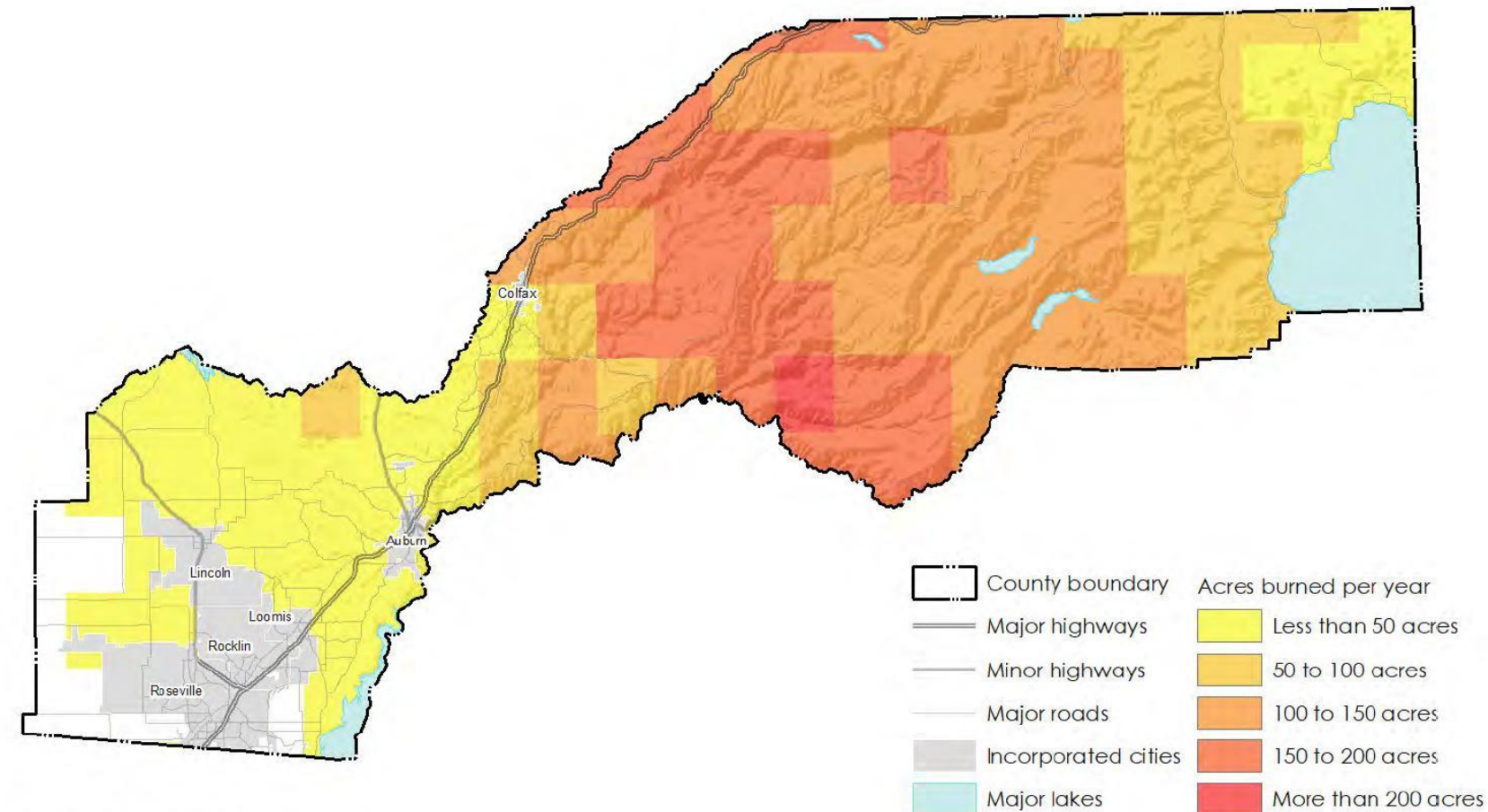
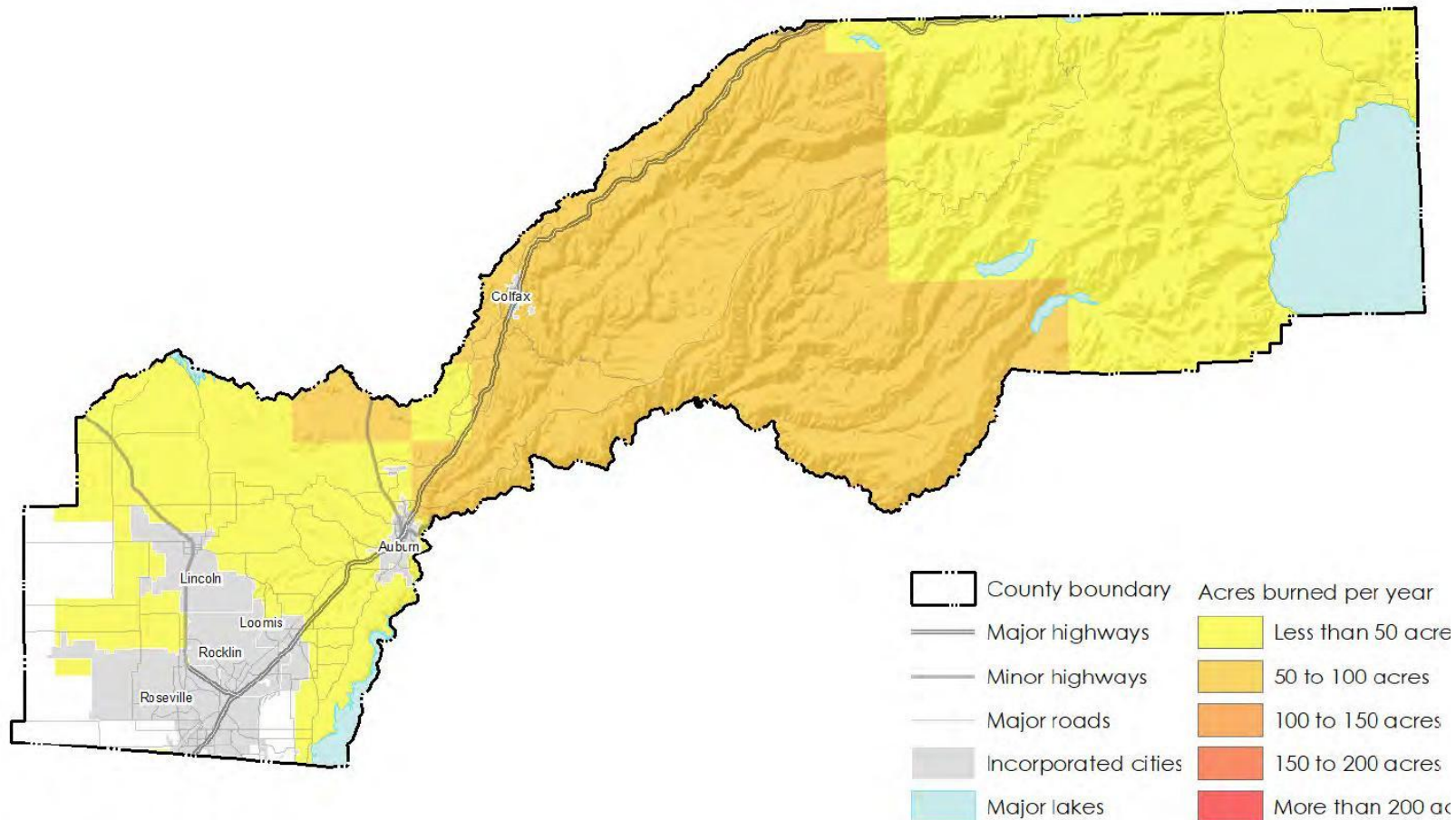
Climate change has already **doubled the area burned** in the western U.S.



The number of acres burned could more than double in Placer County by 2100.

2-1 Annual Burned Acreage (Historic Levels, 1994-2013)

Map 2-3 Annual Burned Acreage (Late-Century, 2070-2099, RCP 8.5 Scenario)



“...**Drought severity** and the number of dry years will increase, even as more **extreme precipitation** events may occur.”

ScienceNews

California drought worst in at least 1,200 years

The Record

California's dry season is turning into a permanent state of being

Los Angeles Times

California has underestimated the epic potential of future flooding, research shows

**Heatwaves from 2013 to 2022
cost California**

\$7.7 billion

**in agricultural and manufacturing
disruptions, power outages,
infrastructure damage, and lost
productivity.**

**Economic losses from
flooding in California
in 2023 and 2024
could exceed \$15 billion.**

**But we have
the solutions...**



Photo © 2023 Patrick Pleul/picture-alliance/dpa/AP Images



Photo © Shutterstock



Photo © 2023 Patrick Pleul/picture-alliance/dpa/AP Images



Caney Fork Farms/Skidmore College

The IEA determined we have all the technology we need to reduce emissions 50% by 2030.



Photo © Shutterstock



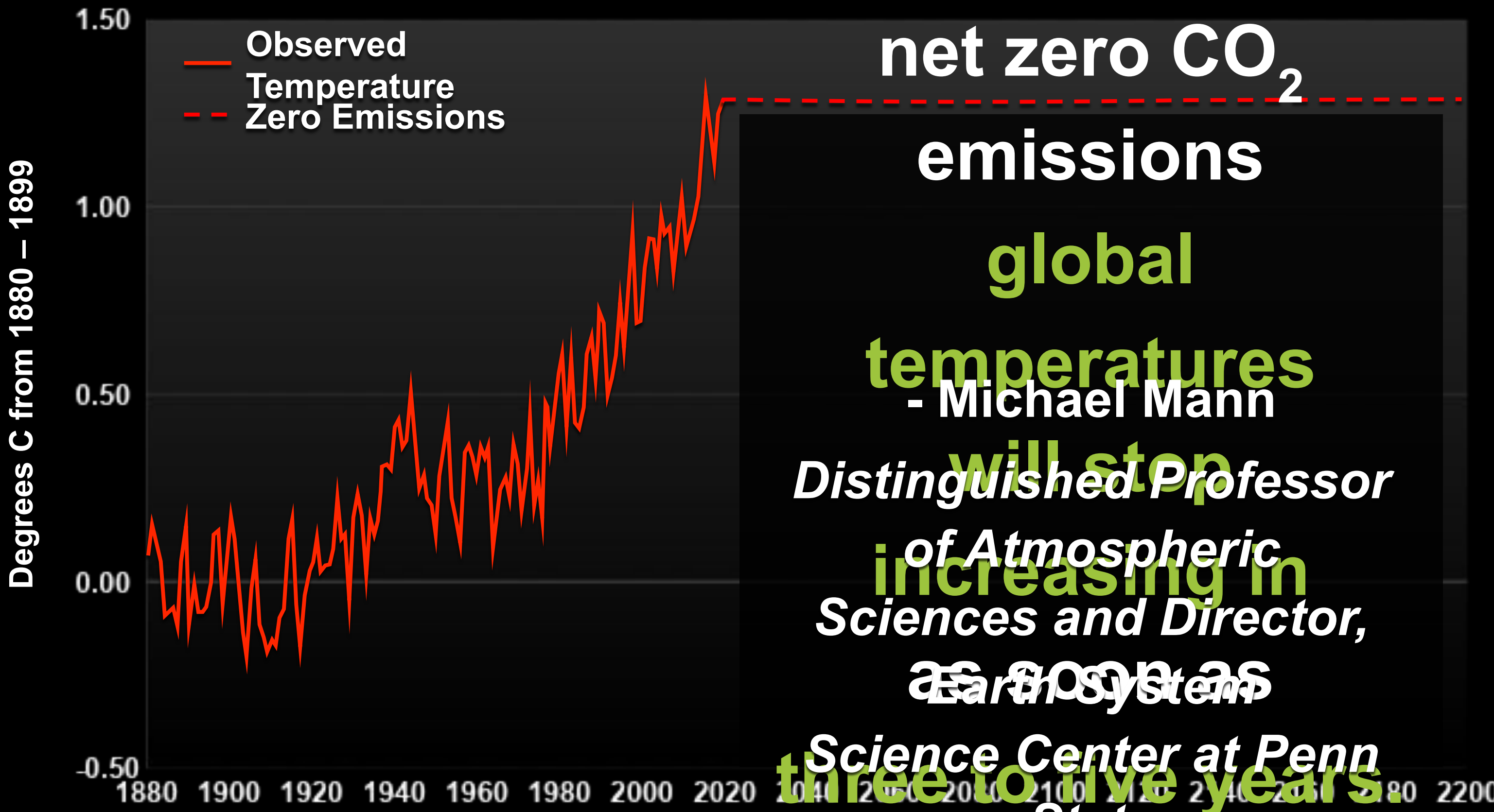
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Photo © Shutterstock



Degrees C from 1880 - 1899

Observed
Temperature
Zero Emissions

reaches
net zero CO₂

emissions

global

temperatures

- Michael Mann

will stop

Distinguished Professor

of Atmospheric

Sciences and Director,

Earth System

Science Center at Penn

State

three to five years.

**“If we halted our net CO₂ emissions, about
half the human-made CO₂
would be taken
out of the atmosphere
and absorbed into the upper ocean and trees
within about 30 years.”**

Drew Shindell

*Distinguished Professor of Earth Sciences
Duke University, Nicholas School of the Environment*

September 2021

The Atlantic

History's Greatest Obstacle to
Climate Progress Has Finally

The Washington Post
Democracy Dies in Darkness

Biden signs sweeping bill to tackle climate
change, lower health-care costs

"All the News
That's Fit to Print"

The New York Times

Late Edition

Today, clouds and sun, thunderstorms, high 92. Tonight, partly cloudy, humid, low 80. Tomorrow, partly sunny skies, thunderstorms, high 94. Weather map, Page B7.

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NEW YORK, MONDAY, AUGUST 8, 2022

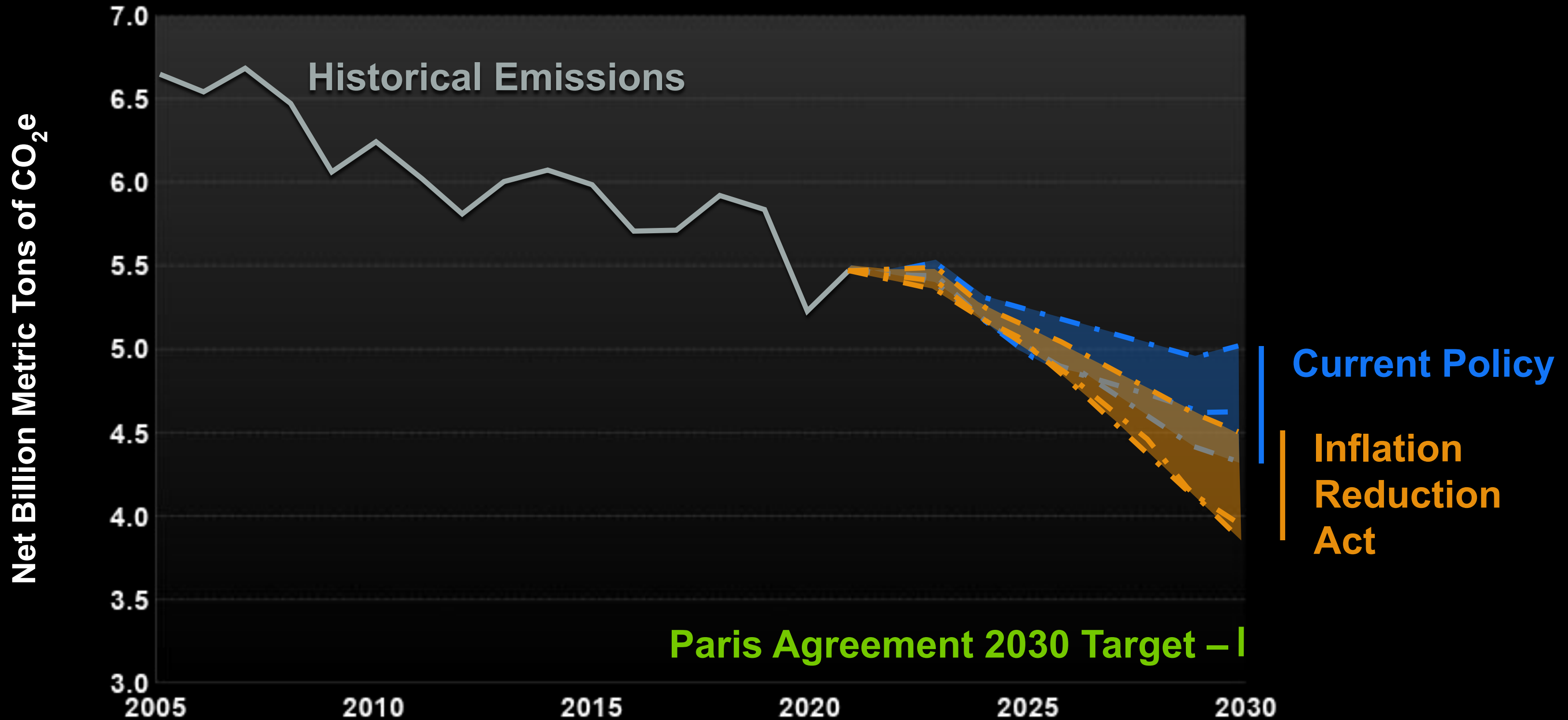
\$3.00

SENATE VOTE PUTS CLIMATE ACTION IN REACH

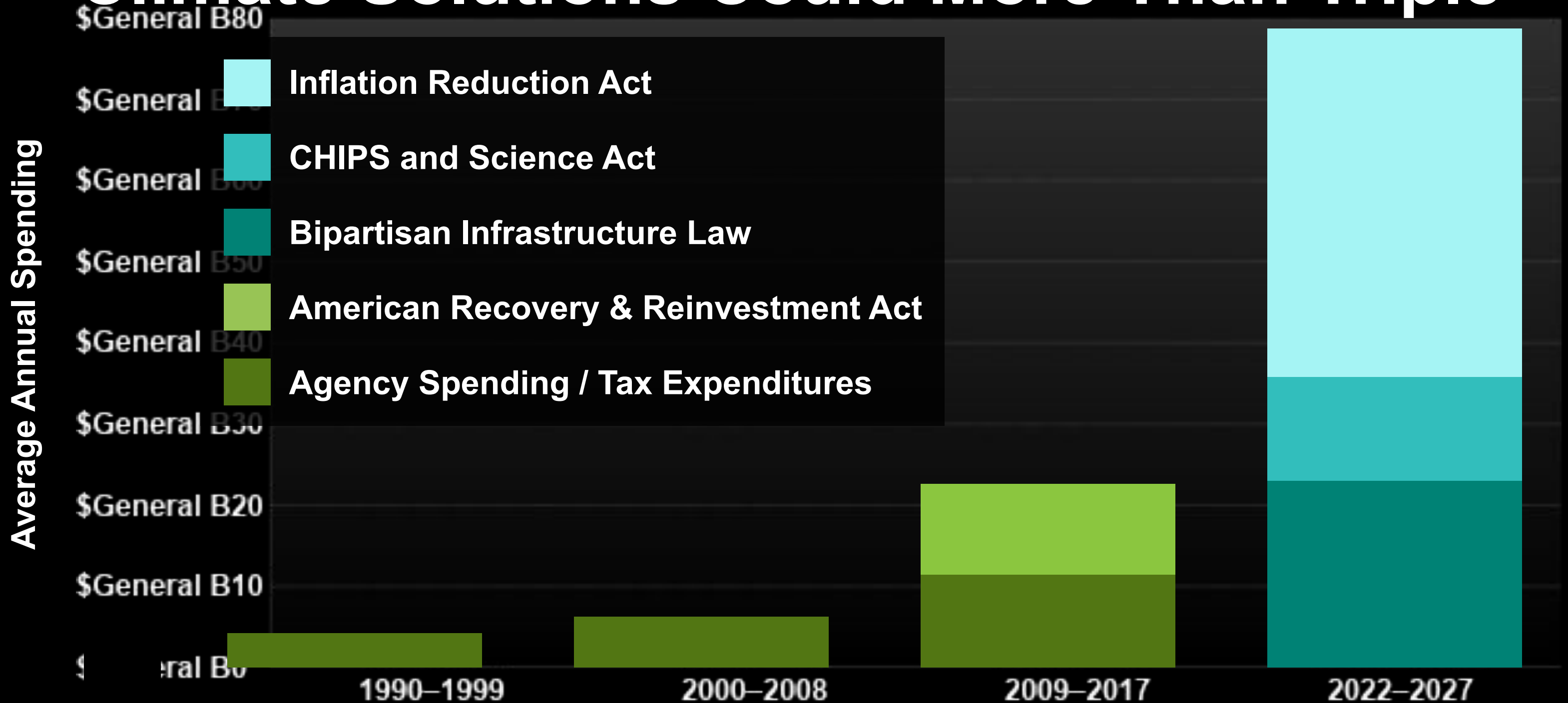
In August of 2022, the United States passed the largest, **most comprehensive climate** change and emissions reductions **bill ever**, the Inflation Reduction Act.

The IRA (when combined with existing policy) has the potential to lower U.S. emissions to 40% below 2005 levels by 2030.

U.S. Greenhouse Gas Emissions



With These Laws, U.S. Federal Spending on Climate Solutions Could More Than Triple

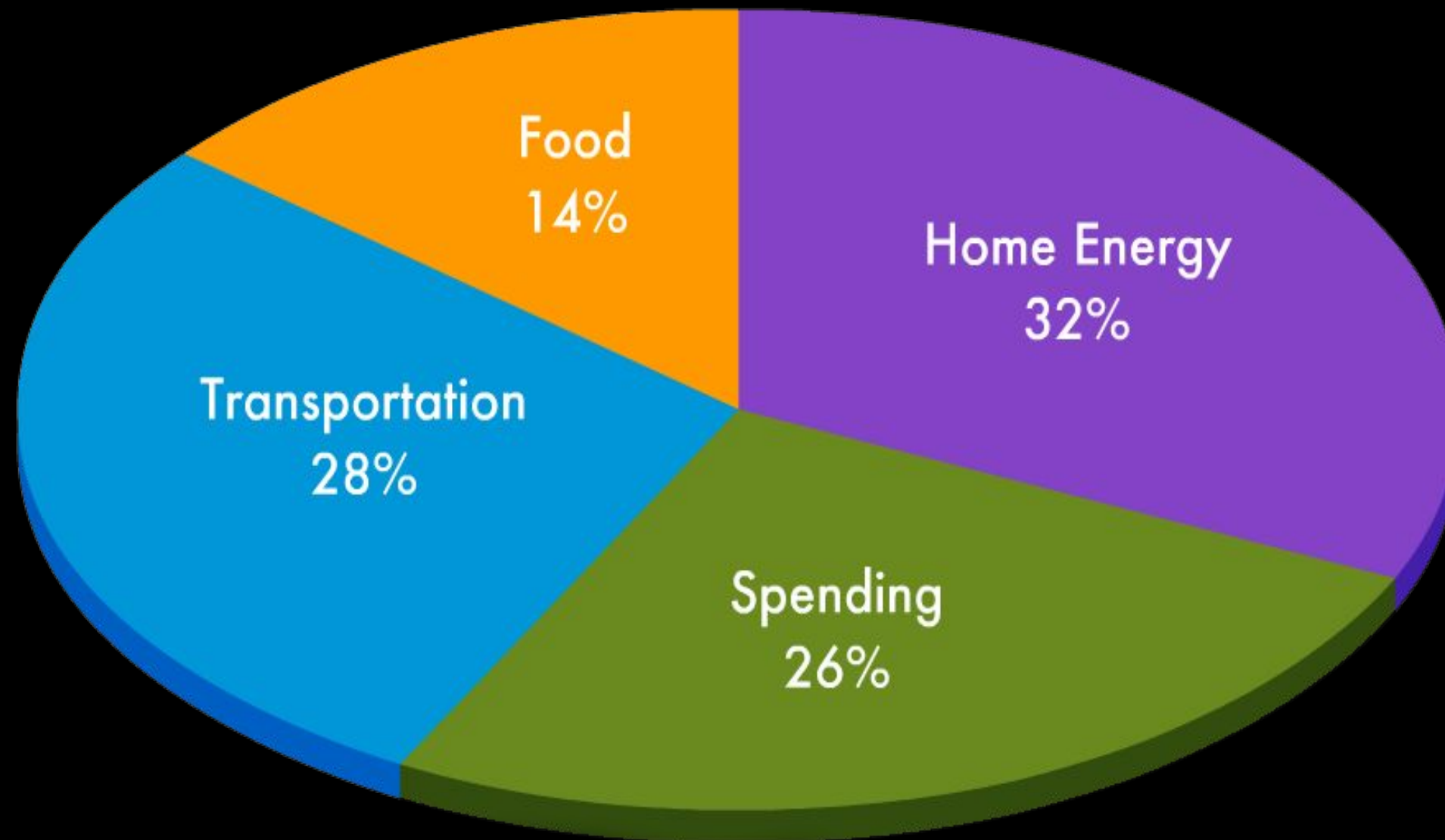


**You can be
part of the solution...**

Do something...

- **Personal**
- **Local**
- **With National Impact**

Energy and transportation are 60% of the average American's carbon footprint.



Source: Union of Concerned Scientists

Benefits of going electric...

Safety: Cleaner air in our homes & cities

Performance: Increased efficiency

Affordability: Save money & get tax breaks

Potential Savings from the Inflation Reduction Act

going electric...

Rooftop Solar

30% tax credit

Home Energy Audit

Tax credit up to \$150

Heat Pump

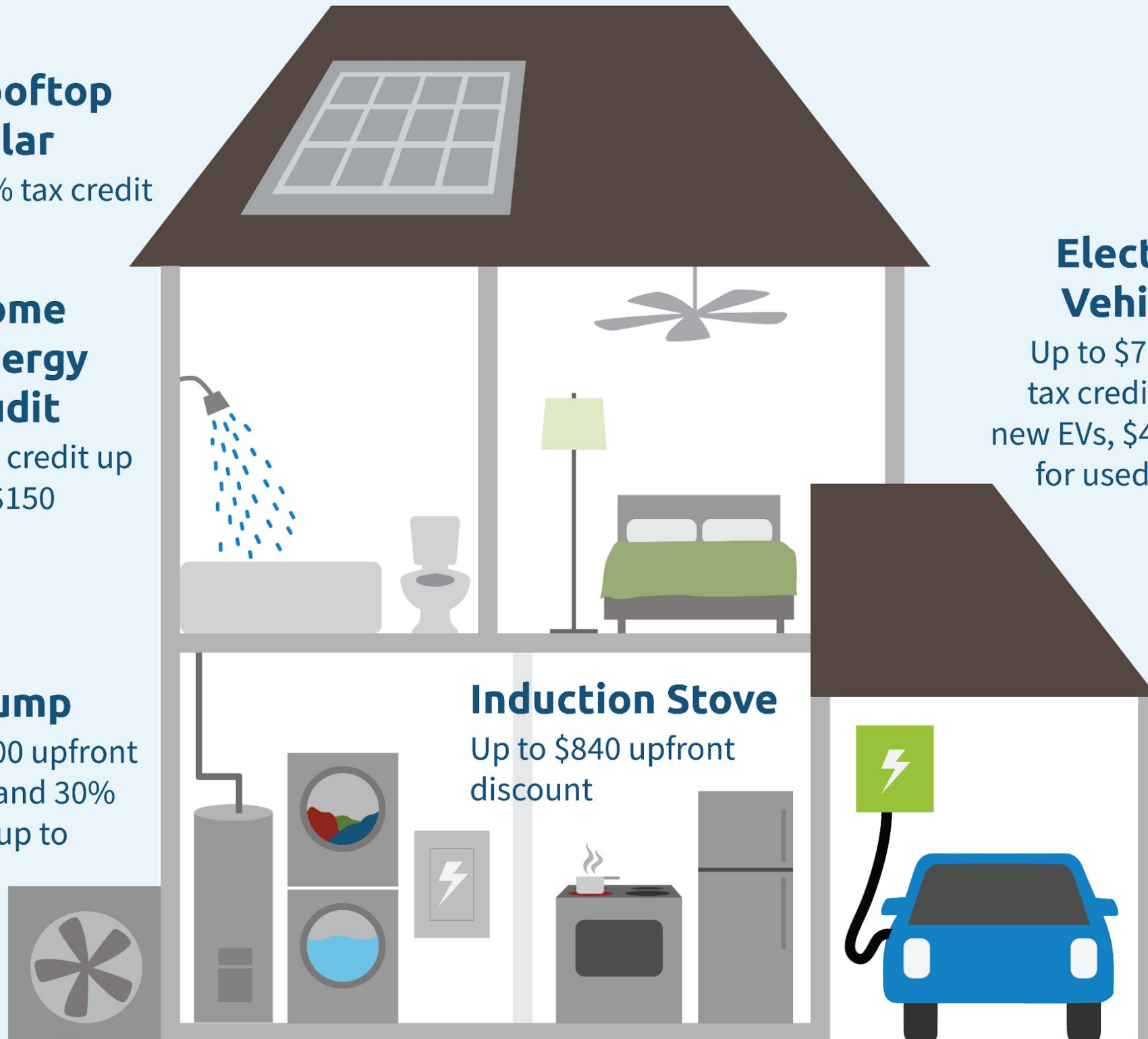
Up to \$8000 upfront discount and 30% tax credit up to \$2,000

Induction Stove

Up to \$840 upfront discount

Electric Vehicle

Up to \$7,500 tax credit for new EVs, \$4000 for used EVs



Investments in renewables and energy efficiency create **three times more jobs, on average, than investments in fossil fuel technologies.**

Oxford Review of Economic Policy
2020

**Join those who are using
their **voices**
their **votes**
their **choices**
to fight for their future, their
community, and their world.**

Green Energy Progress

How Do Projections Compare With Reality?

2000 Projection

Worldwide
wind capacity
will reach 30
GW by 2010

Reality

By 2023 that goal
was exceeded by
a factor of

34 x

**Globally, wind could supply
worldwide electricity consumption
40 times over**

Solar Energy Progress

How Do Projections Compare With Reality?

2002 Projection

The solar energy market will grow one gigawatt per year by 2010

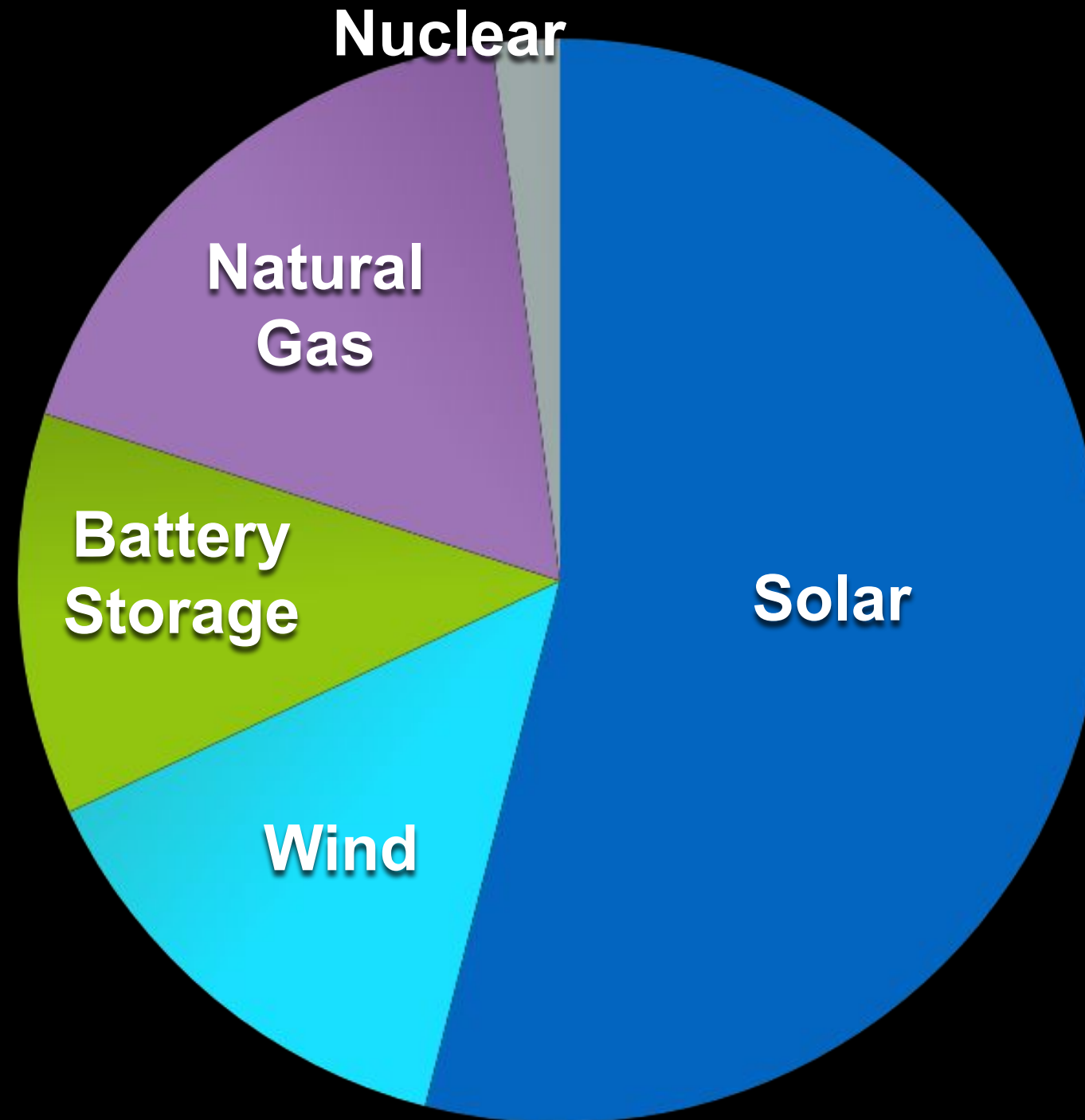
Reality

The reality is that ~~in 2008~~ it was exceeded by

4475

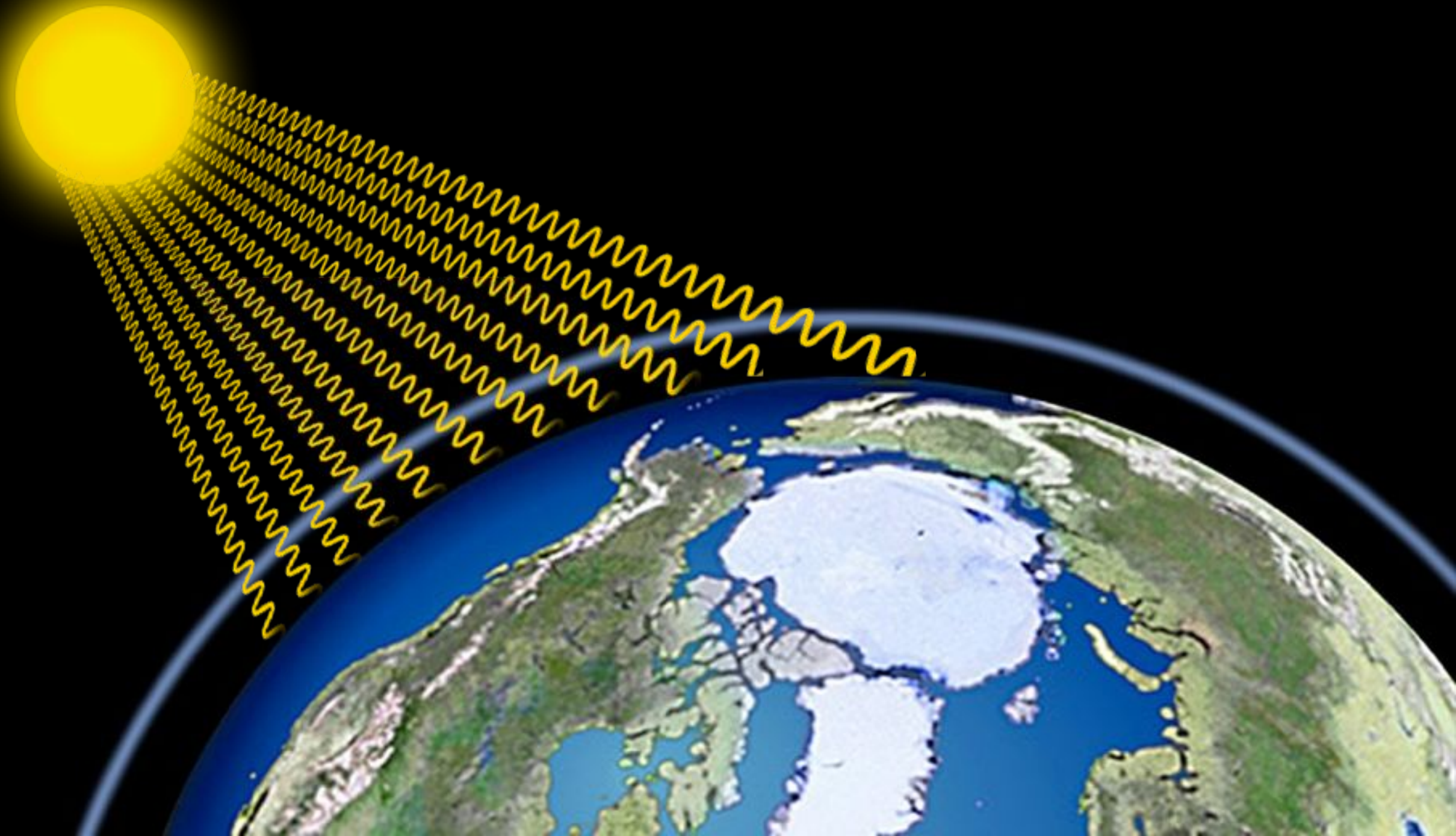
X

New Electricity Capacity in the U.S., 2023



80% of new capacity was from solar, wind and battery storage.

Enough solar energy reaches Earth **every hour**
to fill all the world's energy needs **for a full year**





By 2035, all new passenger cars, SUVs and light-duty trucks sold in California will be zero-emissions vehicles.



Over 425 global companies have made a commitment to go 100% renewable