

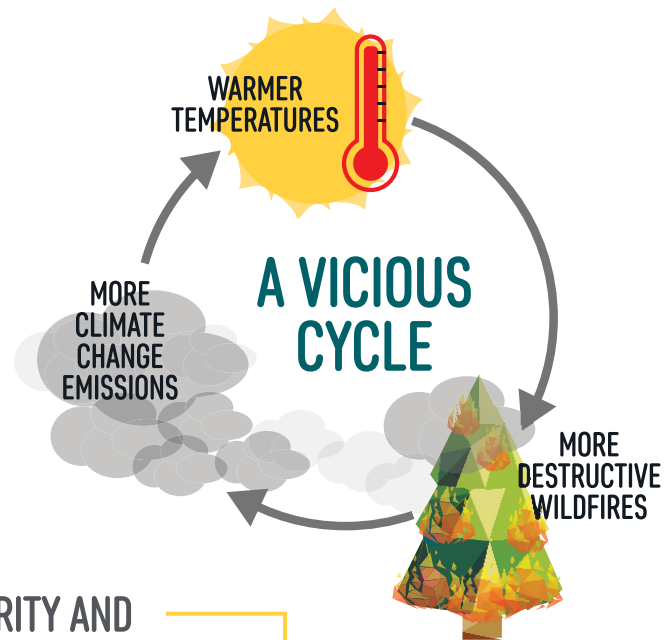
THE NEW NORMAL

WILDFIRE RISK IN THE FACE OF CLIMATE CHANGE

A VICIOUS CYCLE: CLIMATE CHANGE AND WILDFIRES

The 2017 and 2018 wildfire seasons have demonstrated the increasing threat of wildfires to all Californians. Wildfires threaten not only our homes, our lives and our economy, but also our fight against climate change.

Without action, things will only get worse: A hotter, drier California. A year-round fire season. A vicious cycle of increased climate change emissions. A new normal.



CLIMATE CHANGE IS INCREASING THE SEVERITY AND DURATION OF HEAT WAVES AND OTHER EXTREME WEATHER EVENTS

- By mid-century, average temperatures in the Los Angeles region could rise by 4.3°F from the average recorded between 1981–2000ⁱ
- In that same timeframe, the acreage burned in Los Angeles area wildfires could increase 64 -77% from the average of 1981–2000ⁱⁱ
- Decreased humidity means drier air and more dangerous Santa Ana winds. In December 2017, relative humidity near Southern California beaches fell as low as 1 to 9 percent — at or near record lows for many recording stations.ⁱⁱⁱ

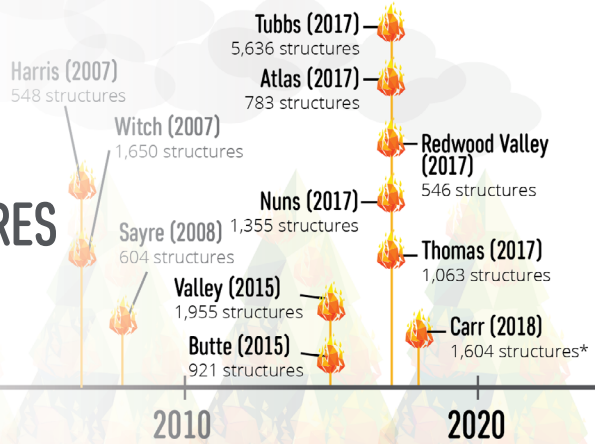
“We’re in for a really rough ride. It’s going to get expensive, it’s going to get dangerous, and we have to apply all our creativity to make the best of what is going to be an increasingly bad situation.”

- Governor Jerry Brown, August 1, 2018

HAZARDOUS FUEL IS BUILDING UP IN OUR NEIGHBORHOODS AND WILDERNESS AREAS

- Vegetation is drying out during summer heat waves and increasingly prolonged droughts.
- Nine million acres of land contain ready-to-burn kindling from more than 129 million trees that have been killed or weakened by drought and bark beetle infestation.^{iv}
- Forest floors are deep in flammable groundcover left by fire suppression efforts.
- Climate models predict increased fire risk from greater swings between wet and dry years: Wet years lead to the vegetation build-up that fuels fires in dry years.

8 OF THE 20 MOST DESTRUCTIVE CALIFORNIA WILDFIRES HAVE HAPPENED SINCE 2015^v



* Fire uncontained and totals likely to change

Year-Round Fire Season: Changes to California's climate mean that the traditional notion of a fire "season" is out of date: The catastrophic 2017 Thomas Fire occurred in December, which had not previously been a destructive month for fires.

WILDFIRES UNDERMINE CALIFORNIA'S FIGHT AGAINST CLIMATE CHANGE

In California, we've worked hard to set meaningful environmental goals. These goals call for a 40 percent reduction in greenhouse gas emissions from 1990 levels by 2030 and an 80 percent reduction by 2050. Air quality goals include a 90 percent reduction in emissions of nitrogen oxides and other health-harming pollutants in areas of the state with the highest levels of air pollution.

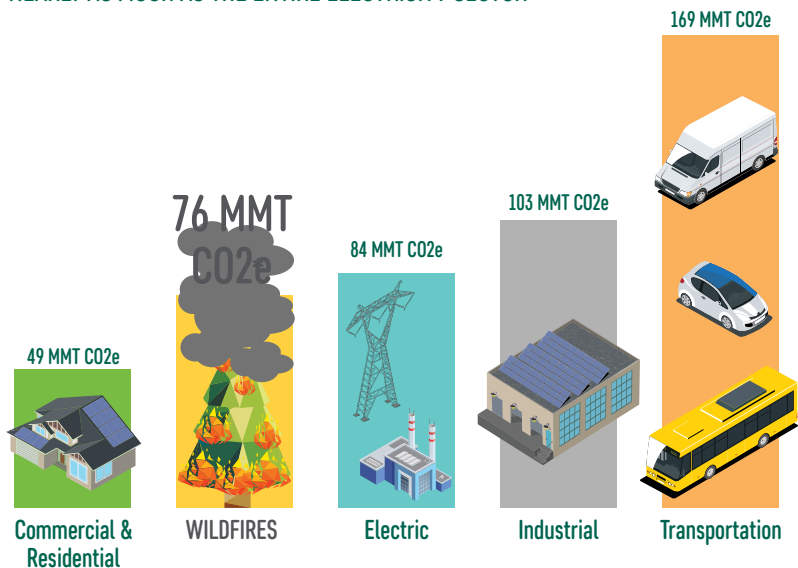
SCE is a key partner in helping the state meet these key goals. Today, 40 percent of SCE's electricity comes from carbon-free resources, and we have more solar and storage on our grid than any other utility nationwide. We're working toward an electric grid with even more carbon-free energy, which is used to clean other sectors of the economy.^{vi} As the electric supply becomes cleaner, so do these other sectors, which accelerates an efficient and affordable transformation that will also generate high-paying jobs.

But the progress that we are making toward delivering cleaner energy to California is being undermined. Even as homeowners, businesses, farmers and electric utilities work hard to cut carbon emissions in the world's sixth-largest economy, wildfires are poised to set us back — posing a significant drag on California's efforts to reduce greenhouse gas emissions.

IN 2017, CALIFORNIA WILDFIRES RELEASED MORE GREENHOUSE GASES THAN BOTH THE RESIDENTIAL AND COMMERCIAL SECTORS COMBINED, AND NEARLY AS MUCH AS THE ENTIRE ELECTRICITY SECTOR^{vii}

CALIFORNIA WILDFIRE GHG EMISSIONS IN 2017

A COMPARISON VS. OTHER GHG EMITTING SECTORS



*Million metric tons of carbon dioxide equivalent



WE CANNOT — AND MUST NOT — ACCEPT THE NEW NORMAL

With the inestimable costs in loss of life and property already so apparent — and the predictable threat of climate change looming—the time to act is now. We cannot ignore the threat posed to our lives, our property and our environment. SCE is committed to fighting climate change and reducing the risk of wildfires.

There are workable solutions to prevent and reduce the destruction caused by wildfires. It is imperative that we improve fire safety for all Californians by taking immediate action to implement clear state standards for critical infrastructure, to develop smarter policies around building structures in high-risk fire areas, and that we execute a state-coordinated funding strategy to effectively address fire prevention and fire suppression. When wildfires do occur, the state needs a new approach to allocating costs so that the risk is appropriately shared and insurance coverage remains affordable.

To move forward, California needs immediate leadership from state government that is supported by a broad coalition of stakeholders. Together, we can deliver those solutions to save lives and protect our homes, our businesses, our environment and our economy.

“The devastating wildfires that erupted in California in July, some of which are still raging, were stoked by the state’s hottest weather in recorded history.”

- Washington Post,
Aug. 9, 2018

REFERENCES

- i. "Climate Change in the Los Angeles Region," Center for Climate Science Faculty Director Alex Hall, Institute of the Environment and Sustainability, UCLA.
<https://www.ioes.ucla.edu/project/climate-change-in-the-los-angeles-region>
- ii. Yufang Jin et al, "Identification of two distinct fire regimes in Southern California: Implications for economic impact and future change," Environmental Research Letters, Sept .8, 2015, last accessed Feb. 20, 2018.
Link: <http://iopscience.iop.org/article/10.1088/1748-9326/10/9/094005/meta;jsessionid=647F82C403F0D389C114345864FAA3D1.c1#artAbst>
- iii. Daniel Swain, "Strikingly Dry Conditions Persist; Thomas Fire Now Largest California Wildfire," The California Weather Blog, Dec 24, 2017, last accessed Feb. 20, 2018.
<http://weatherwest.com/archives/6030>; See also: <https://twitter.com/NWSLosAngeles/status/940350985398050816>
- iv. "Record 129 Million Dead Trees in California," U.S. Forest Service, Dec 11, 2017, accessed Feb 20, 2018, <http://calfire.ca.gov/communications/downloads/newsreleases/2017/CAL%20FIREandU.S%20ForestAnnouce129MillionDeadTrees.pdf>
- v. "Top 20 Most Destructive California Wildfires," Cal Fire, Aug 14, 2018, accessed Aug 14, 2018, http://www.fire.ca.gov/communications/downloads/fact_sheets/Top20_Destruction.pdf
- vi. "The Clean Power and Electrification Pathway," Southern California Edison, November 2017, accessed Feb. 20, 2018, <http://www.sce.com/pathwayto2030>
- vii. Forest Carbon and Emissions Model, Greenhouse Gas Emissions from Four California Wildfires <http://www.idahoforests.org/img/pdf/FCEMReport2Final3-6-08.pdf>; https://www.arb.ca.gov/cc/inventory/data/tables/ghg_inventory_sector_sum_2000-15.pdf