

In his worst dreams, Scott Pruitt must find himself surrounded by solar panels and windmills, pursued by Arnold Schwarzenegger, the Terminator himself, who has returned from the future to stop him before he can doom the planet. When he awakes, he realizes to his relief that he's safe in bed well outside the borders of California.

That's a fantasy, of course. But it has a core of truth. California stands for all that Pruitt is most fervently against: a sane approach to climate policy. And it's also true that Schwarzenegger has been an impassioned advocate for the need to protect future generations from climate change.

Besides indulging a pleasant fantasy, this post has a serious purpose — explaining just what California is actually doing to limit carbon emissions. Most people know that California has led the charge in state climate action but it's hard to get a picture of all the strategies that the state is pursuing. Contrary to the warnings of conservatives and lobbyists, California's efforts haven't caused an iota of identifiable harm to our economy.

To find the beginning of California's efforts, you have to go back three decades, to the end of the Reagan presidency. California legislation focusing specifically on climate change dates back to a 1988 law mandating an inventory of California greenhouse gas emissions. There have been a host of legislative initiatives since then designed to encourage energy efficiency and renewable energy while limiting carbon emissions.

California's efforts received international attention when Governor Schwarzenegger (he of Pruitt's nightmares) signed the California Global Warming Solutions Act, usually referred to as AB 32. This 2006 law required California to reduce emissions to the 1990 level by 2020. This California law generated worldwide attention, including enthusiastic approval by the British Prime Minister at the time it was passed. The California effort undoubtedly received additional attention because the governor was an international celebrity and because it was such a stark contrast with the Bush Administration's recalcitrance. But there were also more tangible international steps involving California, including an agreement between California and the UK to share best practices on market-based systems and to cooperate to investigate new technologies. California has also pursued discussion with government authorities in China.

California implemented AB 32 aggressively. The law itself is notably brief and gives the government enormous discretion about how to achieve its goals, though it does rule out a carbon tax. The California Air Resources Board (CARB) first developed nine "early action" measures, some of which focus on reducing emissions of non-CO₂ greenhouse gases. Another important early action was a low-carbon fuel standard to reduce the carbon

intensity of transportation fuels by 10 percent by 2020. But the CARB's most notable action was to establish an emissions trading system, with a declining, statewide cap on greenhouse gas emission. The program originally covered about 600 industrial facilities, with fuel distributors having been added to the program more recently. Many allowances have been distributed free to firms, but an increasing percentage will be auctioned. The auctions have already begun to generate significant amounts of revenue for the state. In 2017, the state extended the life of the trading system through 2030, with a target of reducing its total emissions 30% below 1990 levels.

California has adopted other important policies unrelated to AB 32 or emissions trading. In 2006, then Governor Schwarzenegger signed Senate Bill 107, requiring California's three major utilities to deliver at least 20% of their electricity from renewable sources by 2010. Then, in 2009, Gov. Schwarzenegger directed California's Air Resources Board (CARB) to adopt regulations increasing California's RPS to 33% by 2020 and expanded the RPS to apply not just to the three major utilities to include all power suppliers. In 2011, Gov. Jerry Brown codified the 33% target before expanding the target again in 2015 to require retail sellers and publicly owned utilities to procure 50% of their electricity from eligible renewables by 2030. As a result, by 2015 California had adopted an aggressive goal requiring, 50% of electricity to come from renewable sources by 2030.

A final crucial component of California's strategy stems from a quirk of federal pollution law. Under the Clean Air Act, states have broad latitude to go beyond federal law in controlling pollution from stationary sources like factories. But the federal government directly regulates vehicles and vehicle fuels, preempting state regulation on the subject. There is a crucial exception to this preemption rule, however: California alone has the power to write its own regulations in this area by getting a federal preemption waiver. When the Clean Air Act was passed, the California exemption was included partly due to the raw political power of the state's congressional delegation and partly due to the fact that southern California would clearly require especially strict vehicle rules to address smog. A later amendment allowed other states to piggyback on California's vehicle rules by adopting them without modification. California's Pavley Act directed CARB to regulate carbon emissions from vehicles, and after some struggle California succeeded in getting a federal preemption waiver. As a result, states that want to go beyond federal regulations in cutting carbon emissions from trucks and cars can copy the California standard.

A natural question is what prompted California's exceptional history of action on climate change. There are various possible explanations, all of which may be true to some extent. California is especially vulnerable to climate change because it combines a large coastline with an arid climate. Also, California has a long history of activism on environmental issues.

One rationale for exempting California vehicle regulations from preemption was that, alone among the states, California had started regulating car emissions even prior to the federal Clean Air Act. Some additional contributing factors could be that California's regulatory agency has accumulated a high level of regulatory expertise and public trust, and that California hoped to capture the economic benefits of pioneering new energy technologies. And finally, continuing to push on climate change may have been an appealing way for a solidly Democratic state to push back against George W. Bush and Donald Trump.

Obviously, it would be a mistake to give California all the credit for fighting climate change, when so many states have undertaken renewable energy programs and a number have their own emissions trading programs. There are many dysfunctions in California's governance, but this is one instance where it seems to have lived up to its self-image as a place where "the future happens first." Pruitt, meanwhile, is doing his best to pretend we can return to the world of 1950, burning fossil fuels like there's no tomorrow.