California Renewable Portfolio Standard Report Card: C

California's Renewable Portfolio Standard (RPS) sets renewable electricity goals and determines which energy sources qualify as renewable. These programs can be a vital part of a state's energy policy portfolio to drive the shift to renewable energy. But California's weak RPS program cannot foster the rapid transition to clean, renewable energy in time to stave off the worst effects of climate change. The state's RPS program is further compromised by California's continued aggressive oil and gas promotion and reliance on fossil-fueled electricity generation.

The California RPS program is undermined by its lackluster target and a weak portfolio definition that counts dirty power sources toward its renewable energy goals — including toxic paper mill waste (known as black liquor), burning wood, and combusting waste methane from landfills, sewage treatment plants and factory farms. The RPS also allows renewable energy "credits" (RECs), which allow utilities to continue burning fossil fuels while buying credits for renewable power produced elsewhere.

California's RPS program is better than that of many states (see Table 1), largely because the state's growing wind and solar power sector is beginning the transition to clean energy. But California can and must do better. California must strengthen its program by expelling dirty energy sources, eliminating RECs and strengthening its target to achieve 100 percent clean, renewable energy.

California and the United States must rapidly shift to 100 percent clean, renewable power — produced from wind, solar and geothermal energy. The majority of U.S. electricity still comes from climate-destroying fossil fuels.[1] In 2016, nearly half (46 percent) of California's utility-scale electricity was fueled by natural gas and oil; only 26 percent was generated from wind, solar and geothermal energy.[2]

Washington's failure to act on climate change means that the states must take decisive action to transition to clean energy. Strengthening RPS programs is an important

TABLE 1. Grading California's Renewable Portfolio Standard

RPS provision	Ideal RPS	California RPS	California grade	Average state grade
Target and time frame	100%	50% by 2030	C	D (30% by 2026)
Dirty portfolio and RECs	No RECs, none of 6 dirty energy sources	Allows RECs and 3 dirty energy sources	D	D (allow 4 dirty sources/RECs)
Transition to renewable energy	Shift to 100% by 2038	Projected to achieve 82% by 2038	B	D (projected to achieve 31% by 2038)
Overall			C	D

component of state climate policies and could dramatically increase the renewable power generation necessary to curb climate change.

Introduction to Renewable Portfolio Standards

State renewable portfolio standards establish a renewable power goal and target date and define which sources of energy count toward fulfilling the renewable electricity goals. All states allow solar and wind power, but they also allow a range of dirty energy sources such as municipal waste incineration or even coal. Almost all states allow utilities to purchase renewable energy credits (RECs), instead of generating actual renewable energy.[3]

Iowa adopted the first mandatory RPS in 1983, and California enacted its RPS law in 2002.[4] By 2018, 29 states and the District of Columbia had mandatory RPS programs, covering utilities that delivered 56 percent of U.S. electricity sales.[5]

Strong RPS programs can be essential parts of state renewable energy policy, along with energy efficiency standards, tax incentives and grants for installing renewable energy, and other programs. But renewable incentives can be undercut when California promotes the expansion of natural gas and oil exploration and fossil fuel infrastructure, as well as its ineffective carbon trading scheme that creates pollution hotspots in lower-income areas and communities of color.[6]

Food & Water Watch evaluated California's RPS program based on the strength of its target, the inclusion of RECs and dirty energy sources, and how well it was projected to shift its energy mix to wind, solar and geothermal power sources over the coming decades. (For more on the scorecard, see *Cleanwashing: How States Count Polluting Energy Sources as Renewable*[7])

California's RPS target goal and time frame are too weak to curb climate change

Strong RPS policies would set a target of 100 percent renewable electricity generation from only wind, solar and geothermal energy, which is imperative to avoiding the worst effects of climate change. The planet is poised to emit more carbon dioxide than what the Intergovernmental Panel on Climate Change conservatively estimated would give us only a two-out-of-three chance of avoiding a catastrophic 1.5 degrees Celsius rise in temperature.[8] As the concentration of greenhouse gases in the atmosphere exceeds crucial thresholds, the effect on climate change could be sudden and potentially irreversible.[9] Reducing these emissions by about 20 percent every year would drive emissions to near zero within 20 years.[10]

California's phased-in RPS target requires private and public utilities to generate 50 percent of their power from renewable sources by 2030.[11] This target is too weak to halt or reverse climate change.

California's RPS allows dirty energy sources and policies

Food & Water Watch identified six dirty "renewable" energy sources as well as whether states allowed RECs that must

be expelled from RPS programs. California's RPS allowed three dirty energy sources — waste methane, wood-burning power and paper mill waste — as well as RECs.[12] California's RPS did not include several common RPS dirty energy sources, although one Stanislaus County garbage incinerator was grandfathered into the program,[13] but it must shed waste methane, wood-fired power plants, black liquor and RECs to clean up its RPS program.

Waste methane (landfills, sewage treatment plants and factory farms): California's RPS included burning waste methane from landfills, sewage treatment plants and animal waste (burning the methane released from factory farm manure).[14] This methane is often referred to as biogas.[15] Biogas is primarily methane and is essentially indistinguishable from fracked natural gas, with many of the same problems.[16] Burning biogas or methane releases greenhouse gases as well as pollutants including nitrogen oxides, ammonia and hydrogen sulfide.[17] California has promoted biogas as renewable energy, with some companies, such as SoCalGas, calling it "renewable natural gas."[18]

California has more dairy cows than any other state, and nine California dairy farms with a combined total of nearly 40,000 cows had manure digesters that supplied the electricity grid in 2017.[19] These expensive, inefficient and polluting facilities primarily generate power for the dairy farms themselves — approximately half the energy from factory farm digesters may be needed to power the digesters themselves.[20]

Almost all of California's factory-farmed dairy cows were concentrated in the Central Valley,[21] a region plagued by high poverty, unemployment, poor air quality and the highest rates of emergency room visits related to childhood asthma in the state.[22] Residents who live near these dairy operations have suffered from tainted water, odors and flies.[23]

Manure digesters have received government subsidies, and methane combustion emissions, methane leaks, accidental manure spills and explosions mean that digesters provide neither clean nor safe energy.[24] Digester subsidies and on-farm power generation create incentives to expand the environmentally destructive and socially unjust factory farm food production system.

Wood-fired power plants: Processing, transporting and burning wood all produce greenhouse gas emissions, and burning wood can release more emissions than coal.[25] In 2018, California had 22 wood-burning power plants.[26] These facilities have a history of air and water pollution violations in California and throughout the nation.[27] For example, California's Blue Lake Power biomass plant has had hundreds of Clean Water Act and Clean Air Act violations.[28] The nearby Blue Lake Rancheria Tribe has endured pollution from the plant for decades, and the tribe brought a federal Clean Air Act enforcement case against the biomass facility in 2016.[29] Tribal members are concerned about health risks, such as respiratory diseases, from living close to the plant.[30]

Paper mill residues (black liquor): California's RPS program specifically allowed paper mill residues.[31] Black liquor is a toxic industrial waste from the paper milling process that can be burned for electricity.[32] Burning black liquor emits air pollutants including particulate matter and greenhouse gases.[33]

Renewable energy credits: Allowing RECs under California's RPS program permits utilities to burn polluting fuels while purchasing distant renewable energy credits, diminishing the potential environmental and job creation benefits of renewable energy.[34]

California's RPS is not strong enough to achieve 100 percent renewables within two decades

Most states would not meet their RPS goals through wind, solar and geothermal power alone, and almost no states are on track to deliver 100 percent clean, renewable power by 2038. The installation of wind, solar and geothermal power has accelerated rapidly in recent years, but the Trump administration's attack on renewable energy will likely curb the adoption of these needed energy sources.[35]

California has experienced significant renewable energy growth and is projected to reach nearly 82 percent renewable energy by 2038 from only wind, solar and geothermal energy — well above its target of 50 percent by 2030 but not enough to curb climate change.[36] California's stronger adoption of wind and solar helped it outperform most states.

Now is the time to strengthen California's RPS program

Robust mandatory RPS programs can be an important part of state policies to encourage the shift to renewable energy. California must raise its target goal, expel dirty energy sources and eliminate renewable energy credits to ensure that the policies can promote a swift transition to genuine renewable energy. California must raise its RPS goal to 100 percent renewable energy and eliminate RECs, wood-burning power, black liquor, and waste methane from landfills, sewage treatment plants and factory farms from its eligible RPS energy sources.

Endnotes

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2 *Ibid*.

3 *See* Food & Water Watch. "Cleanwashing: How States Count Polluting Energy Sources as Renewable." July 2018 at 8.

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6 *See* Food & Water Watch and GreenAction for Health & Environmental Justice. "Paying to Pollute: The Environmental Injustice of Pollution Trading." November 2017.

7 See Food & Water Watch (2018).

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