



California Environmental Protection Agency

2022

State Agency Greenhouse Gas Reduction Report Card

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This Report Card documents greenhouse gas (GHG) emissions from State agencies' operations.¹ Figure 1 shows the trend in reductions as reported in Report Cards from this year and previous years. This year's Report Card documents State operations GHG emissions of 1.157 million metric tons of carbon dioxide equivalent (MMTCO_{2e}) that occurred in 2021.

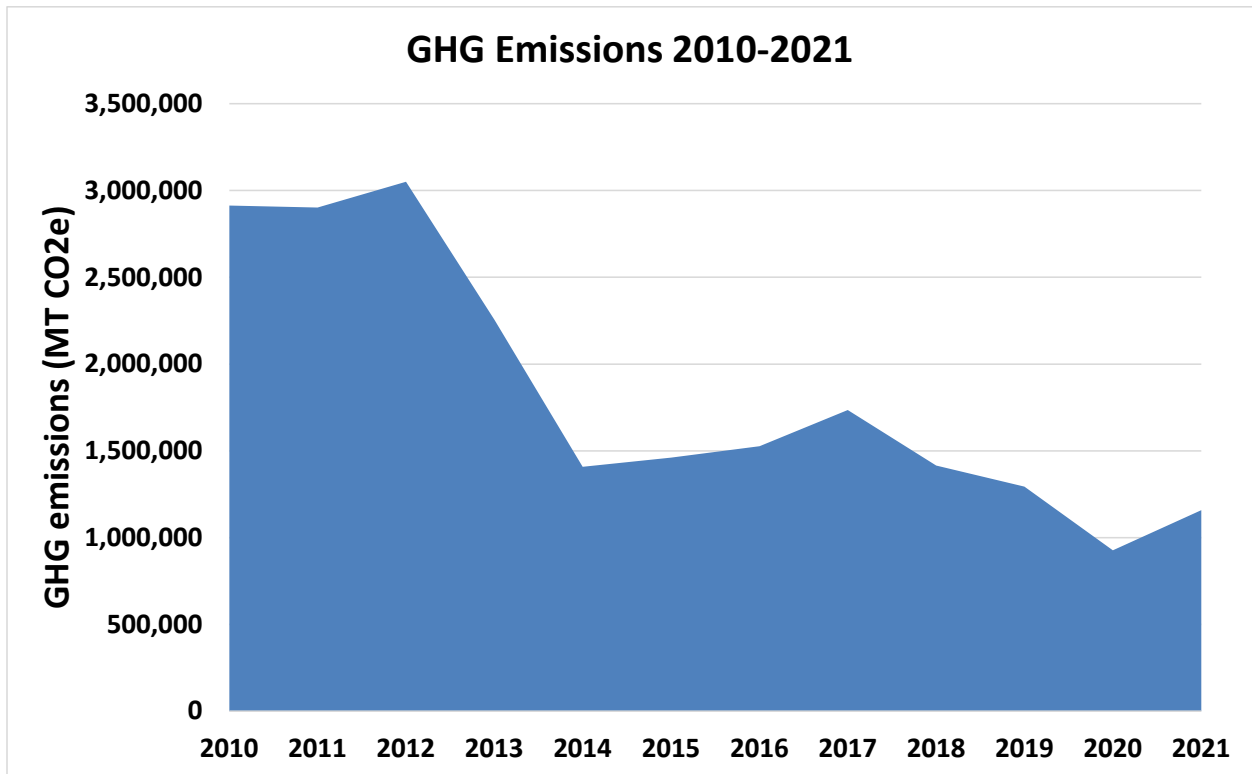


Figure 1

Background

Annually, the California Environmental Protection Agency (CalEPA) must prepare a report describing state agency actions to reduce GHG emissions, per [Government Code Section 12892, Title 2, Division 3, Part 2.5](#) (Senate Bill 85, Statutes of 2007, Chapter 178). This law directs CalEPA to compile and organize this information in the form of a Report Card and post it on the CalEPA website. The report reflects information gathered in 2022 for actual GHG emissions occurring in 2021.

¹ Recent Report Cards are available at <https://calepa.ca.gov/climate-action/#cat>

Each agency on the Climate Action Team (CAT) is required to report an estimate of the GHG emissions from their own operations and activities. Table 1 lists the CAT agencies, boards, departments and commissions, and the status of the GHG inventory activities for each. The named agency or department provided the information in this table to CalEPA. Appendix A shows charts of agencies that have the biggest reductions in GHG emissions.

The GHG inventories employ protocols established by The Climate Registry (TCR)². Inventories identified as ‘verified’ have been verified by an approved third party and submitted to the registry. The verified inventory reports are on the registry’s website: <https://theclimateregistry.org/our-members/member-reports/>. Please direct any questions or comments to Shereen D’Souza: <shereen.dsouza@calepa.ca.gov>.

GHG Inventories of State Agencies

Starting with the January 2010 report card, CalEPA began compiling GHG inventories prepared by the CAT member agencies. These inventories were each prepared independently using The Climate Registry’s *General Reporting Protocol*. Executive Order B-18-12 required all state agencies under the direct authority of the Governor to take actions to reduce entity-wide greenhouse gas emissions by 10 percent by 2015 and 20 percent by 2020, as measured against a 2010 baseline.³ In addition, Executive Order N-19-19 requires that every aspect of state government redouble its efforts to reduce greenhouse gas emissions.⁴ Finally, Senate Bill 1203, declares that it is the intent of the Legislature that state agencies aim to achieve net-zero emissions of greenhouse gas emissions resulting from their operations no later than January 1, 2035. Currently, 44 state agencies report their annual GHG emissions to The Climate Registry Information System.

From 2010-2021, state agencies reduced emissions by 60 percent primarily due to the California Department of Water Resources’ (DWR) divestiture of the Reid Gardner Generating Station (coal-fired power plant) in mid-2013. Other State agencies collectively reduced their GHG emissions by 28 percent. Altogether, 29 of 44 agencies surpassed the goal of a 20 percent reduction. The decrease in total emissions in 2019 and 2020 and increase in 2021 is due almost entirely to DWR emissions, which fluctuates year to year depending on rainfall levels.

² Originally chartered by the state of California as the California Climate Action Reserve.

³ Executive Order B-18-12
<https://www.ca.gov/archive/gov39/2012/04/25/news17508/index.html>

⁴ Executive Order N-19-19
<https://www.gov.ca.gov/wp-content/uploads/2019/09/9.20.19-Climate-EO-N-19-19.pdf>

Additional GHG reduction measures that agencies continue to implement include: identifying vehicles for zero emission vehicle/plug-in hybrid replacement, implementing energy conservation principles, increasing use of renewable diesel, pursuing LEED and zero-net-energy at existing and new facilities, and participating in green energy purchase programs that supply either 50 percent or 100 percent renewable energy to State facilities.

Starting with 2010 emissions, departments and agencies changed reporting methods for their emissions to avoid double counting in this state-government-wide reporting effort. For example, in the case of departments and agencies occupying DGS-owned buildings, they no longer include emissions from those buildings in their inventories. Instead, DGS reports those emissions in its own inventory. It is important to compare emissions only from calendar year 2010 forward due to these changes in reporting. Additionally, while changes in year-to-year GHG emissions can result from changes in the way state agencies do business, they also result from elements beyond individual agency control. California utilities rely extensively on hydropower for base-load energy generation. In dry years, more electricity will be generated using natural gas with a resultant substantial increase in GHG emissions. Similarly, weather conditions (cold or hot) can have a significant impact on building energy use. Longer-term, multi-year trends will prove useful for policy makers developing mid-term and long-term climate goals due to the state experiences with weather anomalies.

Department of Water Resources

DWR is unique among State agencies due to its size, the magnitude of GHG reductions and the percentage of its reductions. Also, it is notable that DWR is only one of few State agencies that routinely verifies its GHG emissions.

In 2010, DWR emissions were 1,679,744 MTCO_{2e}, 79 percent of the State agency total. In 2021, DWR emissions were 268,269 MTCO_{2e}, around half of the State agency total. In all but three years, DWR emissions were more than all the other State agencies put together.

DWR emissions fluctuated until 2012, then dropped by 81 percent from 2012 to 2014, then fluctuated at a new lower level. The year-to-year fluctuations relate to rainfall which refills reservoirs at dams that provide hydropower. The big drop resulted from expiration of the long-term contract with the coal-fired Reid Gardner Generating Station in mid-2013. Three units shut down in 2014 and the fourth in 2017.⁵

⁵ Nevada Division of Environmental Protection, Reid Gardner Generating Station.
<https://ndep.nv.gov/environmental-cleanup/site-cleanup-program/reid-gardner-power-station>

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The data below is organized by Agency though many departments are reporting inividually.

Table 1: Climate Action Team - GHG Inventory Status						
INVENTORY STATUS >	Member of The Climate Registry	Reporting Year	Emissions in Metric Tons CO2E for each year calculated	Emissions in Metric Tons CO2E for each year calculated	Emissions in Metric Tons CO2E for each year calculated	NOTES
			Direct	Indirect	Total	Green indicates verified inventory
California State Transportation Agency						
- CalTrans	Yes					
		2007	136,587	93,996	230,583	
		2008	75,546	111,331	186,877	
		2009	98,423	131,227	229,650	
		2010	125,627	89,356	214,983	
		2011	125,342	85,725	211,067	
		2012	118,242	78,373	196,615	
		2013	115,989	80,841	196,830	
		2014	110,074	45,538	155,612	
		2015	113,922	42,200	156,122	
		2016	87,614	40,829	128,443	
		2017	81,725	36,957	118,682	
		2018	100,910	20,158	121,068	
		2019	109,197	35,147	144,344	
		2020	98,013	6,594	104,607	
		2021	88,474	39,949	128,423	

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			Direct	Indirect	Total	Green indicates verified inventory
California Environmental Protection Agency						
-Totals include inventory data for CalRecycle, CARB, OEHHA, DPR, DTSC and SWRCB	Yes					
		2005	2,632	4,914	7,546	
		2006	3,119	4,780	7,899	
		2007	3,050	5,545	8,595	
		2008	3,177	5,478	8,655	
		2010	2,364	4,884	7,248	
		2011	2,120	4,953	7,073	
		2012	1,964	4,704	6,668	
		2013	2,069	4,594	6,663	
		2014	1,822	3,961	5,783	
		2015	1,922	4,474	6,396	
		2016	1,866	3,953	5,820	
		2017	1,969	3,965	5,934	
		2018	1,842	4,336	6,178	
		2019	1,943	4,341	6,284	
2020	1,527	3,848	5,375			
2021	1,903	3,316	5,219			

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California Department of Food and Agriculture	Yes					
		2010	8,133	1,974	10,107	
		2011	7,952	1,966	9,918	
		2012	6,740	1,948	8,688	
		2013	6,196	1,564	7,760	
		2014	5,774	2,350	8,124	
		2015	5,895	1,901	7,796	
		2016	5,432	1,548	6,980	
		2017	4,903	1,639	6,542	
		2018	4,988	1,479	6,467	
		2019	5,023	1,576	6,599	
		2020	4,875	1,347	6,222	
		2021	5,020	1,465	6,485	

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			Direct	Indirect	Total	Green indicates verified inventory
California Governor's Office of Emergency Services	Yes					
		2010	294	698	992	
		2011	346	749	1,096	
		2012	302	904	1,206	
		2013	1,356	1,261	2,617	
		2014	2,109	1,570	3,679	
		2015	3,977	1,510	5,487	
		2016	2,558	1,495	4,053	
		2017	3,163	732	3,896	
		2018	2,475	821	3,296	
		2019	2,397	961	3,358	
		2020	2,986	387	3,373	
		2021	1,554	495	2,049	

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			Direct	Indirect	Total	Green indicates verified inventory
CA Public Utilities Commission	Yes					
		2004	92	849	941	
		2005	432	1,084	1,516	
		2006	515	1,228	1,743	
		2010	167	892	1,059	
		2011	156	850	1,006	
		2012	149	805	954	
		2013	173	836	1,009	
		2014	152	729	881	
		2015	126	861	987	
		2016	206	680	886	
		2017	187	668	855	
		2018	348	713	1,061	
		2019	435	305	740	
		2020	233	581	814	
		2021	409	510	920	

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Health and Human Services Agency						
- Department of Public Health	Yes					
		2010	5,769	6,297	12,066	
		2011	6,738	5,344	12,082	
		2012	6,276	5,076	11,352	
		2013	5,775	2,190	7,965	
		2014	4,842	523	5,365	
		2015	4,585	294	4,879	
		2016	4,572	273	4,845	
		2017	5,295	286	5,581	
		2018	4,997	298	5,295	
		2019	4,953	242	5,195	
		2020	5,350	256	5,606	
		2021	5,707	301	6,008	

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			Direct	Indirect	Total	
						Green indicates verified inventory
Natural Resources Agency						
- The following Boards and Departments calculate						
- CalFire	Yes					
		2007	41,882	7,460	49,342	
		2008	37,222	6,044	43,266	
		2009	34,273	5,620	39,893	
		2010	36,237	4,507	40,744	
		2011	37,258	4,587	41,845	
		2012	46,856	4,664	51,520	
		2013	50,954	5,540	56,494	
		2014	44,992	4,574	49,566	
		2015	53,605	5,413	59,018	
		2016	57,942	4,031	61,973	
		2017	64,940	4,610	69,550	
		2018	57,538	4,345	61,883	
		2019	43,267	3,881	47,148	
		2020	62,082	3,517	65,599	
		2021	63,070	4,452	67,522	

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			Direct	Indirect	Total	Green indicates verified inventory
Natural Resources Agency, continued						
- CA Energy Commission	Yes					
		2003	22	576	598	
		2008	14	948	962	
		2009	11	863	874	
		2010	4	903	907	
		2011	3	894	897	
		2012	3	1,347	1350	
		2013	1	489	490	
		2014	1	400	401	
		2015	1	424	425	
		2016	1	1	2	
		2017	0	1	1	
		2018	0	1	1	
		2019	0	1	1	
2020	0	1	1			
2021	0	1	1			

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			Direct	Indirect	Total	Green indicates verified inventory
Natural Resources Agency, continued						
- Dept. of Fish & Wildlife	Yes					
		2007	15,716	18,303	34,019	
		2008	15,175	14,597	29,772	
		2009	13,557	9,026	22,583	
		2010	13,223	10,916	24,139	
		2011	13,793	8,490	22,283	
		2012	14,457	8,318	22,775	
		2013	12,244	7,993	20,237	
		2014	14,282	7,146	21,428	
		2015	13,541	7,553	21,094	
		2016	12,603	5,238	17,841	
		2017	12,169	5,648	17,817	
		2018	12,857	5,125	17,982	
		2019	12,356	4,999	17,355	
		2020	11,435	1,198	12,633	
2021	9,923	112,388	122,311			

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			Direct	Indirect	Total	Green indicates verified inventory
Natural Resources Agency, continued						
- Dept. of Water Resources	Yes					DWR has updated and re-verified its 2010-2019 GHG inventories using the TCR default EF (eGRID). DWR's previous inventories used CARB emission factors for net pump load.
		2007	14,299	3,226,250	3,240,549	
		2008	9,929	2,400,211	2,410,140	
		2009	11,477	2,025,807	2,037,284	
		2010	863,297	816,447	1,679,744	
		2011	740,566	851,513	1,592,079	
		2012	929,572	935,363	1,864,935	
		2013	470,413	619,543	1,089,956	
		2014	17,719	329,160	346,879	
		2015	14,169	437,681	451,850	
		2016	10,058	575,589	585,647	
		2017	17,651	838,669	856,320	
		2018	13,738	510,597	524,335	
		2019	10,385	405,971	416,356	
		2020	13,903	156,998	170,901	
		2021	9,344	258,925	268,269	

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			Direct	Indirect	Total	Green indicates verified inventory
Natural Resources Agency, continued						
<i>- Dept. of Parks and Recreation</i>	Yes					
		2010	15,595	4,696	20,291	
		2011	15,877	5,046	20,923	
		2012	15,800	5,233	21,033	
		2013	16,521	5,793	22,314	
		2014	15,782	4,828	20,609	
		2015	13,218	6,183	19,401	
		2016	13,278	4,659	17,937	
		2017	11,187	4,333	15,520	
		2018	15,587	3,860	19,447	
		2019	15,893	4,384	20,277	
		2020	11,450	3,657	15,107	
		2021	14,573	3,777	18,350	
Office of Planning & Research	Yes					

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			Direct	Indirect	Total	Green indicates verified inventory
Government Operations Agency						The Department of General Services's inventory includes much of the operations (including buildings and vehicles) of many other agencies.
- Dept. of General Services	Yes					
		2006	56,135	80,434	136,569	
		2007	58,124	90,739	148,863	
		2008	60,256	83,678	143,934	
		2009	55,324	80,009	135,333	
		2010	55,144	70,272	125,416	
		2011	55,342	70,225	125,567	
		2012	50,048	62,340	112,388	
		2013	43,768	66,918	110,686	
		2014	42,398	60,489	102,887	
		2015	42,702	38,646	81,348	
		2016	40,456	24,234	64,690	
		2017	39,112	14,570	53,682	
		2018	40,894	4,797	45,691	
		2019	42,374	9,717	52,091	
		2020	36,120	8,939	45,059	
		2021	37,495	7,612	45,107	