

# 2021 CO2 Emissions Report





## Who We Are

Founded in 1939, Holy Cross Energy (HCE) is a not-for-profit rural electric cooperative that provides safe, reliable, affordable and sustainable energy and services that improve the quality of life for almost 44,000 members and their communities in Western Colorado. HCE is committed to leading the responsible transition to a clean energy future.

## Power Supply

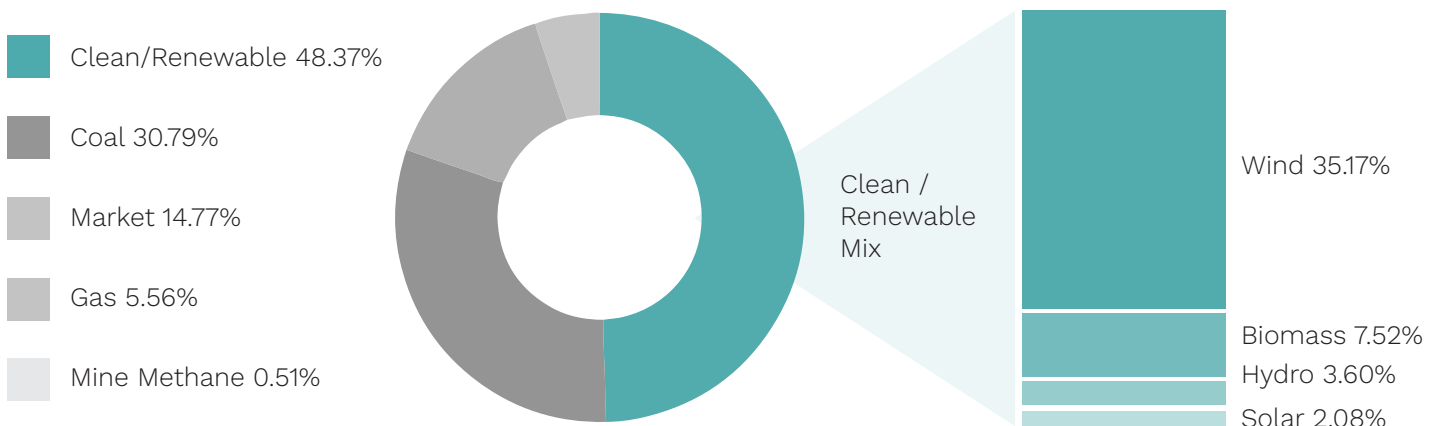
HCE has long term power supply commitments through contracts with Public Service Company of Colorado (a subsidiary of Xcel Energy), Guzman Energy LLC and Western Area Power Administration. HCE also has long term purchase power agreements with several small clean and renewable generators located in and near our service territory, including 7 small hydroelectric generators, 10 small commercial solar arrays, a 12 MW biomass plant, and one community owned solar array. HCE also owns 2.7MW of solar. A 145-kW solar array provided bill credits to low and moderate income HCE members at no cost to participants.



HCE owns an 8% share in Unit 3 at the Comanche Generating Station located in Pueblo, CO. The energy from this 750 MW super-critical, coal-fired generating unit became operational in July of 2010. Guzman Energy LLC began purchasing this energy from HCE in February of 2019.

## 2021 Energy by Fuel

Just over 48% of the energy we provide our members was supplied through clean and renewable resources, such as wind, solar, hydro, biomass, and coal mine methane generation. 30% came from coal, 5% came from gas, and 14% was from market sources which could not be identified with a high level of certainty.





Holy Cross Energy (HCE) offers a voluntary program to support renewable energy generation in which members may select their fuel source: wind, local hydro, and local solar. A total of 48,556 MWh were purchased by 2,351 HCE members in 2021. In addition, HCE's members installed an additional 290 small renewable energy generators (such as solar panels) by the end of 2021, bringing the total number of local renewable installations to 2,233. The 42,835 kW of distributed renewable generation produced about 112,515 MWh during the calendar year.

In 2007, House Bill 1281 added to the existing renewable standards (RES) for investor-owned utilities and required that electric cooperatives like HCE supply 10% of retail sales from renewable sources by 2020, with the required percentages increasing over time. HCE sold a total of 1,210,410 MWh to its retail customers in 2021, resulting in a requirement to have 121,041 MWh in RES eligible generation. Exceeding the requirement, 612,467 MWh (48% of all purchases) of HCE's retail electric sales came from eligible renewable sources, excluding renewable sales to customers under the voluntary pricing program. Renewable Energy Credits equal to those sales are retired on an annual basis using the RES Standards and are not used for any other purpose.

Additionally, HCE filed a Clean Energy Plan (CEP) with the Colorado Public Utilities Commission, which received approval in 2022. This plan outlines a pathway that is above and beyond the CEP statutory threshold of 80% emissions reductions from 2005 levels, in alignment with HCE's 100X30 goal.

## Total CO2 Emissions

YEAR	RECEIVED POWER (MWh)	TOTAL SALES (MWh)	RENEWABLE SALES (MWh)	EMISSIONS (Short tons)
<b>2021</b>	<b>1,266,222</b>	<b>1,210,410</b>	<b>48,556</b>	<b>586,246</b>
2020	1,261,926	1,209,196	50,522	507,629
2019	1,275,491	1,224,906	36,961	597,496
2018	1,257,760	1,192,939	13,981	759,724
2014	1,240,374	1,179,789	15,002	950,373
2005	1,080,417	1,032,137	10,501	944,419

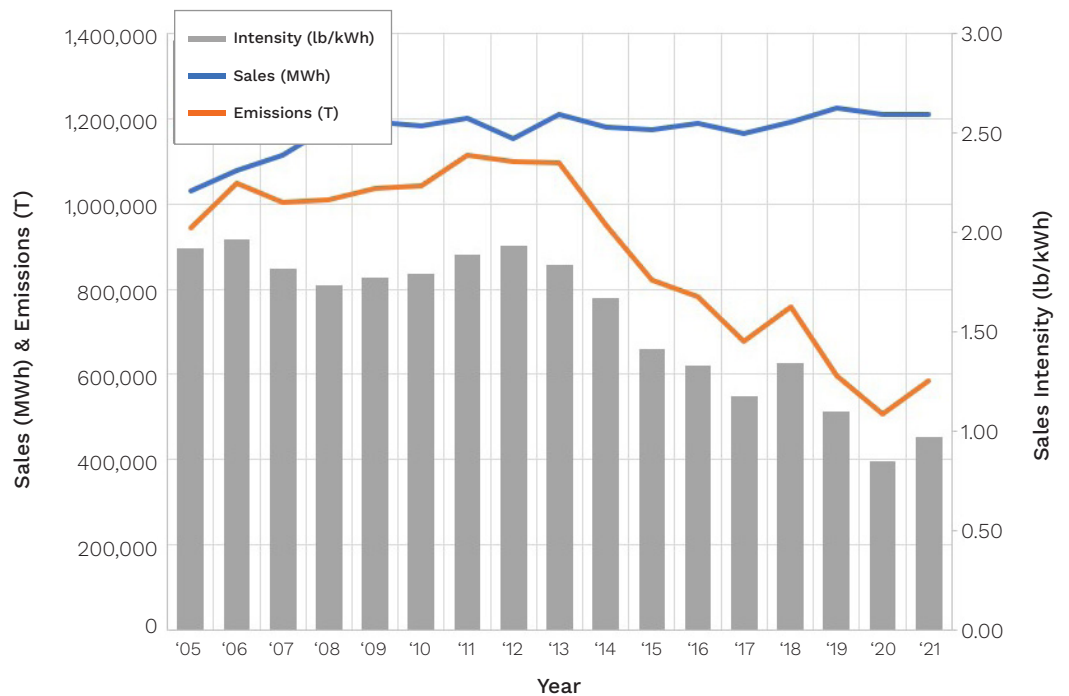
## Emissions & Renewable Energy

HCE procured 1,640,637 MWh of wholesale and generated power (including estimated generation from net meters) and billed for 1,210,410 MWh to serve consumers' loads. The difference includes wholesale transactions, transmission and distribution line losses, electricity used in company facilities and electricity provided to net metered customers that was offset under that billing mechanism.

The CO2 emissions associated with electric power generation used to serve HCE's customers in 2021 totaled approximately 575,351 metric tons of CO2 equivalent emissions. Emissions in 2021 were 43.2% lower than 2005 levels, while sales were 17% higher. Additionally, emissions in 2021 have decreased by 10.9% from 2019 levels. After accounting for line losses and the sales which have no associated emissions (under voluntary green pricing programs), the average CO2 intensity for delivered electricity during 2021 was 0.96 lbs. per kWh.



## Sales & CO2 History



This report and previous years' CO2 emissions reports are available at [holycross.com/greenhouse-gas-emissions](https://holycross.com/greenhouse-gas-emissions)