

# 2022 CO<sub>2</sub> 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

Holy Cross Energy (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.

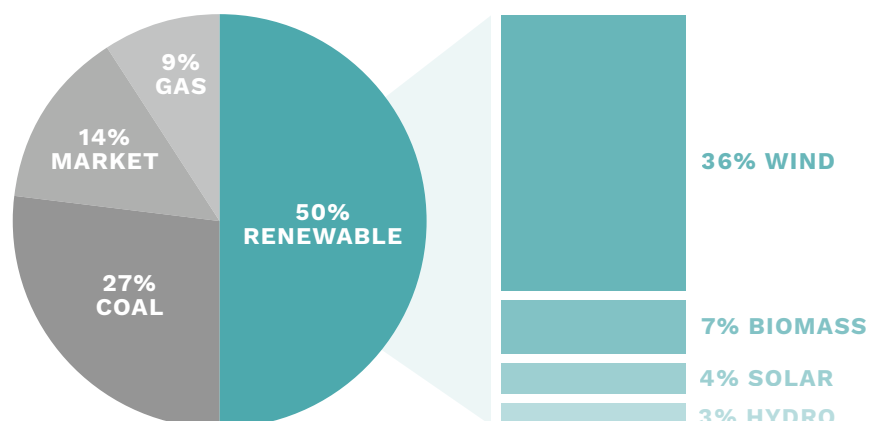
HCE also has long term purchase power agreements with several small clean and renewable generators located in and near our service territory, including 8 small hydroelectric generators, 16 small commercial solar arrays, a 12 MW biomass plant, and one community owned solar array. HCE also owns 2.7MW of 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 these 750 MW super-critical, coal-fired generating units became operational in July of 2010. Guzman Energy LLC began purchasing this energy from HCE in February of 2019.

| LOCAL RENEWABLE SOURCES INCLUDE   |                                      |
|---|--------------------------------------|
|    | Eight Small Hydroelectric Generators |
|    | 16 Small Commercial Solar Arrays     |
|    | One 12 MW Biomass Plant              |
|   | One Income-Qualified Solar Array     |
|  | 2.7MW of other HCE-owned Solar       |

## 2022 Energy By Fuel

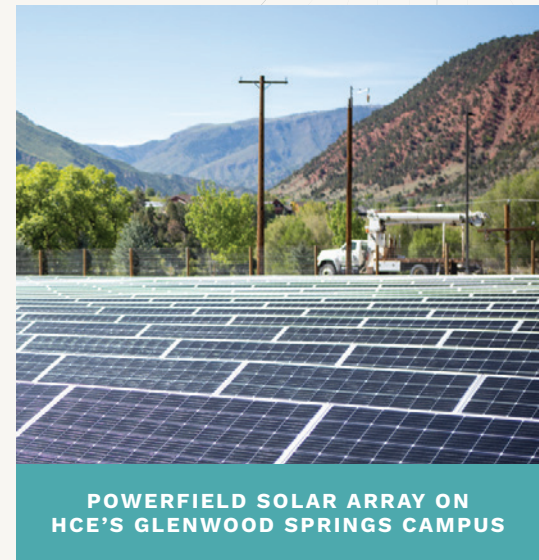
A total of 50% of the energy we provide our members was supplied through clean and renewable resources, such as wind, solar, hydro, and biomass. Other sources include 26% from coal, 10% from gas, and 14% from market sources which could not be identified with a high level of certainty.



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 48,997 MWh were purchased by 2,351 HCE members in 2022. In addition, HCE's members installed an additional 293 small renewable energy generators (such as solar panels) in 2022, bringing the total number of local renewable installations to 2,638. The total 23 MW of net-metered renewable capacity provided about 12,531 MWh to the HCE distribution system 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 1,273,153 MWh to its retail customers in 2022, resulting in a requirement to have 127,315 MWh in RES eligible generation. Exceeding the requirement, 656,820 MWh (50% 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.

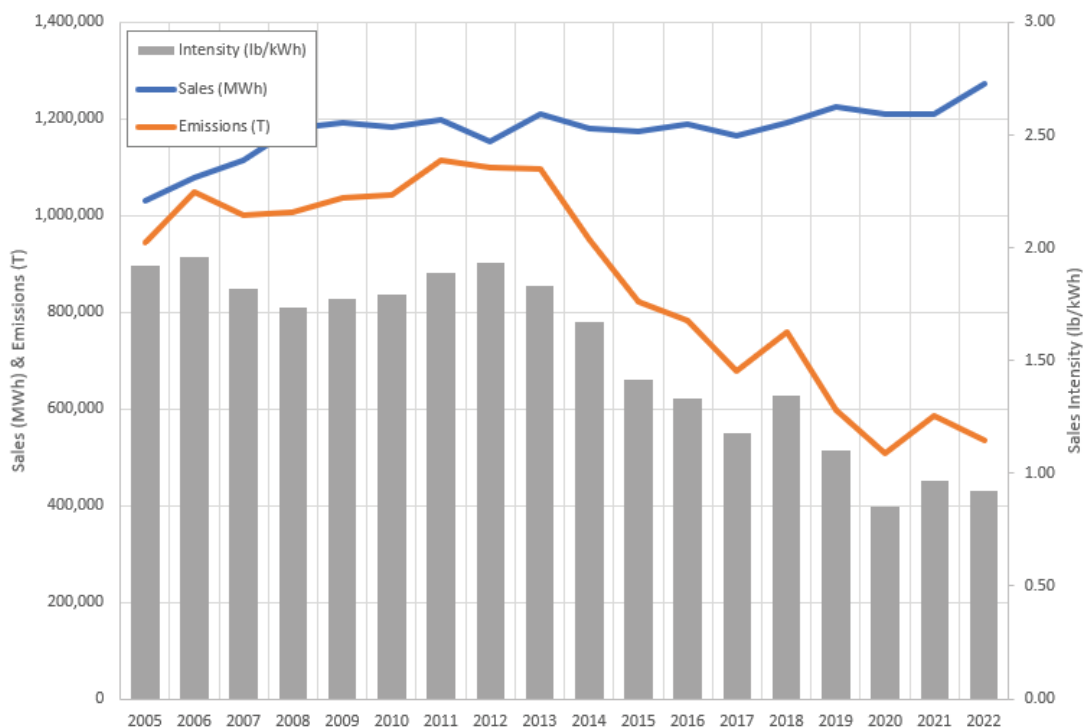


## Emissions & Renewable Energy

HCE procured 1,618,102 MWh of wholesale and generated power and billed for 1,273,153 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.

| YEAR        | RECEIVED POWER<br>(MWh) | TOTAL SALES<br>(MWh) | RENEWABLE SALES<br>(MWh) | EMISSIONS<br>(SHORT TONS) |
|-------------|-------------------------|----------------------|--------------------------|---------------------------|
| <b>2022</b> | <b>1,618,102</b>        | <b>1,273,153</b>     | <b>48,997</b>            | <b>534,246</b>            |
| 2021        | 1,266,222               | 1,210,410            | 48,556                   | 586,246                   |
| 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                   |

## SALES & CO2 HISTORY



The CO2 emissions associated with electric power generation used to serve HCE's customers in 2022 totaled approximately 534,034 metric tons of CO2 equivalent emissions. Emissions in 2022 were 42.8% lower than 2005 levels, while sales were 18.4% higher.

Additionally, emissions in 2022 have decreased by 15.5% 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 2022 was 0.92 lbs. per kWh.

| POWER SUPPLY<br>(MT CO2E) | 2005    | 2014    | 2018    | 2019    | 2020    | 2021    | 2022           |
|---------------------------|---------|---------|---------|---------|---------|---------|----------------|
| Comanche 3                |         | 329,363 | 430,023 | 372,334 | 14,675  | 339,259 | <b>257,933</b> |
| T&D Losses, Company Use   | 44,213  | 28,031  | 11,714  | 9,031   | 16,279  | 7,441   | <b>10,104</b>  |
| Contracted Power Supply   | 900,207 | 592,979 | 317,987 | 216,131 | 429,559 | 228,652 | <b>265,997</b> |
| Total                     | 944,420 | 950,373 | 759,724 | 597,496 | 460,513 | 575,351 | <b>534,034</b> |



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