



Carbon Footprint PreScreen

An independent audit of carbon footprint for CREtelligent Gold River, CA 95670

| | |
|--------------|--------------|
| Latitude | 38.620197 |
| Longitude | -121.259742 |
| Climate Zone | 3B |
| Type | Large Office |
| Provider | BANC |

Produced July 08, 2022 11:55AM

About this Report

This is an automated emissions model of this building's energy use and carbon footprint. For compliance-grade models and interactive, on-demand data, sign up at wattcarbon.com.

Overview

24,797

lb CO₂ / year

July 2021 - June 2022
Gold River, CA 95670

-10.2% YoY

41,032 kwh / year

0.6 lb / kWh

Grid Fuel Mix



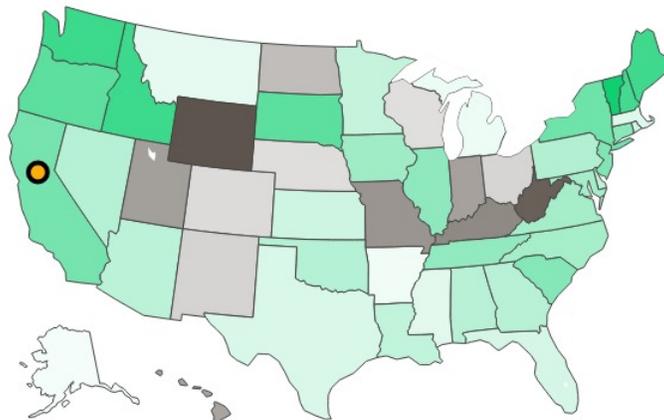
What This Means

Based on this building's location and energy use patterns, some of its energy is supplied from carbon-based sources like natural gas and coal, and the remainder of its energy is supplied from carbon-free sources like hydropower, solar and wind energy.

Geographic Comparison

More Carbon

Less Carbon



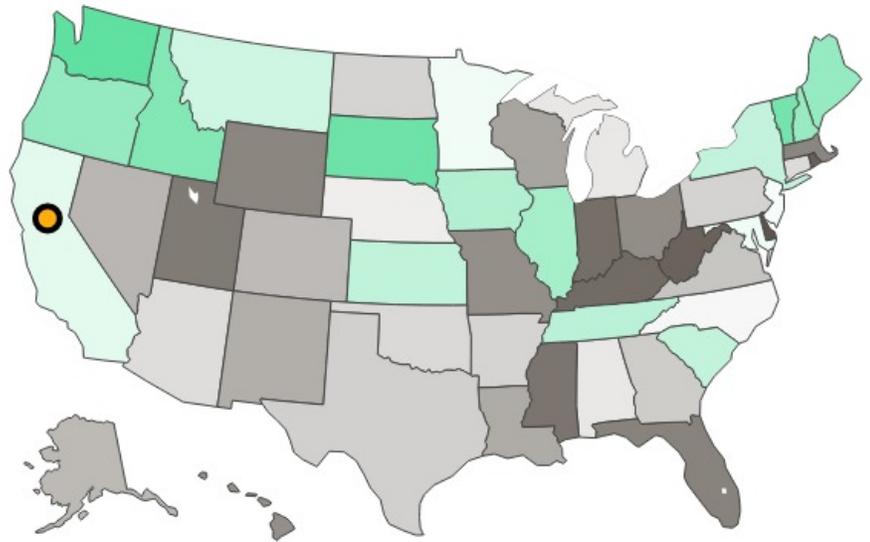
Projections

What This Means:

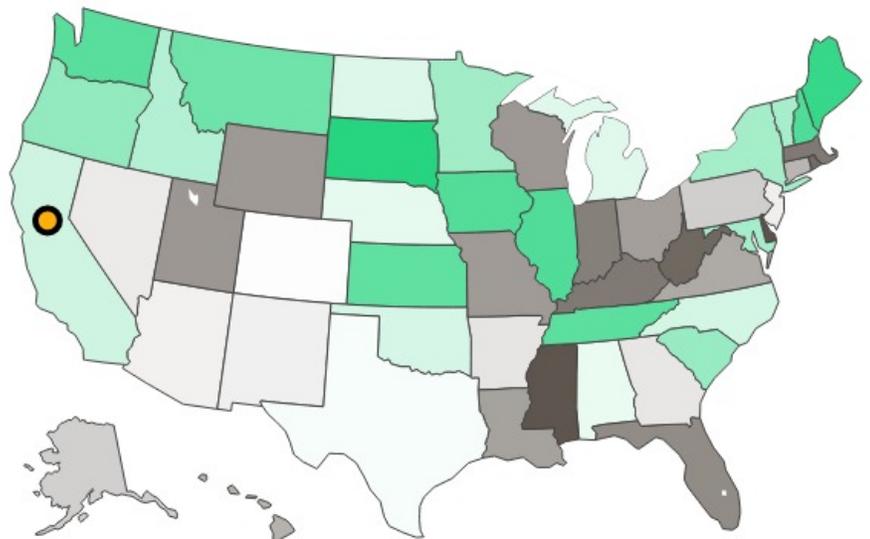
The grid is constantly evolving and many utilities already have long-term decarbonization targets. These maps show nationwide projections for the cleanliness of the grid in the next 5 years. In some states, the grid will get cleaner due to new carbon-free energy resources coming online.



2020 Relative State Emissions



2030 Relative State Emissions



Deep Dive

This Asset vs the Grid

74.2% Correlation

Negative Correlation

No Correlation

Positive Correlation

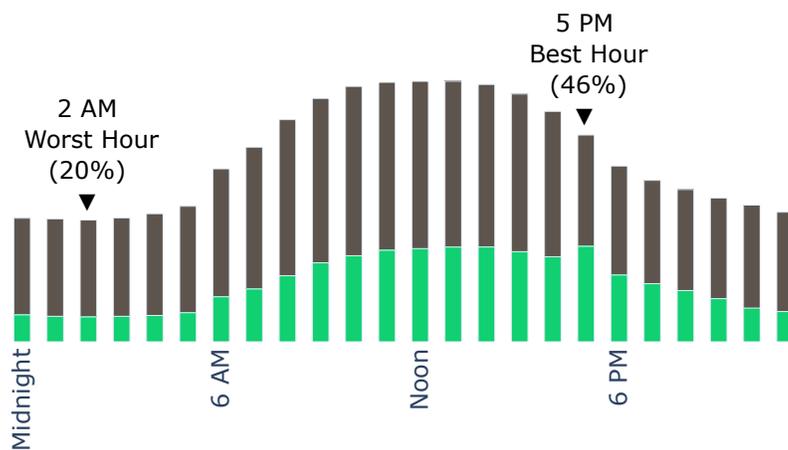
What This Means:

A **positive** correlation between energy use and carbon free energy means that this asset uses energy when the grid is cleanest.

A **negative** or **inverse** correlation means that this assets uses energy when the grid is dirtiest. Carbon Free correlation can be improved through:

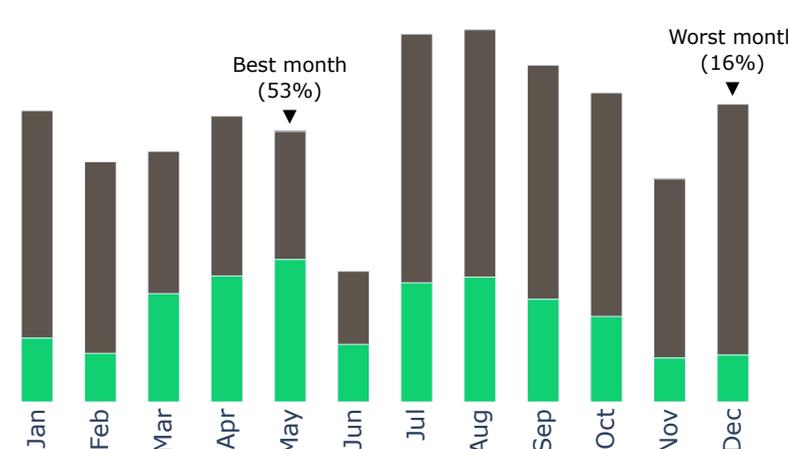
- Energy efficiency
- Demand response and load shifting
- Investing in renewables that supply energy when the grid is dirtiest

Average Daily Energy Mix



The fuels used to supply energy through the grid change from hour to hour. This chart shows the carbon-based (dirty) and carbon-free (clean) portions of this asset's energy use through the course of an average day. Shifting your asset's energy use from dirty to clean hours of the day is a great, simple way to reduce emissions.

Past Year



The fuels used to supply energy through the grid also change seasonally. This chart shows the carbon-based and carbon-free portions of this asset's energy use by month through the course of a year. Reducing energy use during months of the year with a lot of carbon-based energy is another strategy to reduce emissions.

Ways to Get Ahead

We recommend these actions to reduce carbon energy dependence:

1. Buy Renewable Energy Certificates (RECs)

Buy Renewable Energy Certificates (RECs) Renewable Energy Certificates (RECs) are a market-based instrument that certifies ownership of one megawatt-hour (MWh) of electricity generated from a renewable energy resource. RECs can be purchased then retired to offset emissions from energy used by a building or other asset.

2. Reduce Consumption During Peak Hours

Through energy efficiency or building load management, you can reduce the energy consumption of this building during high-carbon hours of the day. Every building is different, but through the implementation of retrofits (lighting, heating/cooling, weatherization), through building management systems (sensors, controls) or on-site solar and energy storage.

3. Install Onsite Renewables

For buildings where it's feasible, you can install solar, batteries, wind, or other clean energy sources. These resources can eliminate a portion or all of your carbon-based grid energy use.

4. Build Carbon-Mitigating Resources

For large portfolios of buildings, procuring carbon-free energy resources can be accomplished through power purchase agreements (PPAs). A PPA is a long-term electricity supply agreement between a clean power producer and a customer. The PPA defines the conditions of the agreement, such as the amount of electricity to be supplied, negotiated prices, accounting, and penalties for non-compliance.

How We Calculate

For the survey-grade data in this report, WattCarbon uses calibrated hourly energy models to estimate the asset's hourly energy use profile based on location and square footage. We then match the hourly energy consumption of buildings to the actual generation mix dispatched by the local grid balancing authority for each hour of the day.

In other words, each kilowatt-hour consumed by a building in a specific hour gets tagged with the carbon emissions intensity of the grid for that hour.

For buildings whose energy consumption is known, users can upload their energy data on wattcarbon.com to receive compliance-grade emissions estimates.

Why Our Calculations Matter

Grid decarbonization requires fundamental restructuring of our energy systems and valuation methods. Using energy when the grid is clean and avoiding it when the grid is dirty helps reduce carbon emissions and increases the value of renewable energy. Clear and transparent measurement unlocks the decarbonization potential of every building on the planet so that we can make substantive progress toward our net-zero goals.

About WattCarbon

WattCarbon is building data infrastructure to support decarbonization of buildings. Its platform enables measurement of carbon emissions from energy use on a 24/7 basis. These measurements can be used for a variety of use cases, including emissions reporting, real estate due diligence, benchmarking and decarbonization planning.