

This report was prepared by Colorado C-PACE using the Energy Performance Improvement Calculator (EPIC™)¹ app to estimate the energy savings and calculate the financial impacts of your project.

Property Information

Harris Industrial Park

Building Name

Davis Rd

Street Address

Pueblo County

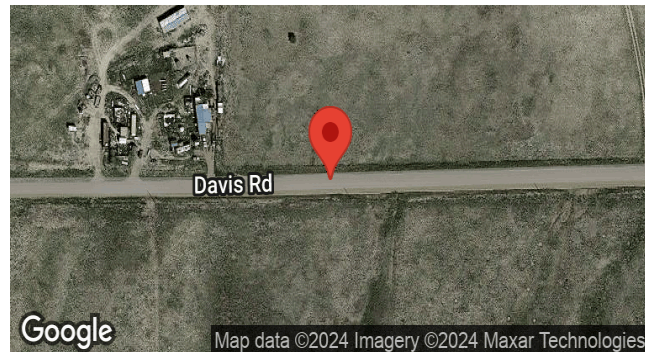
City

CO

State

81069

ZIP Code



Building Characteristics

Warehouse / Stor... 2024

Type

Year Constructed

1,000,000

Gross Sq. Ft.

Unconfirmed

Disadvantaged Community²

655,136

Space Cooling (kWh/yr)

12,429

Space Heating (MMBtu/yr)

3,064

DHW Heating (MMBtu/yr)

Project Cost Summary

\$8,446,607

Net Installed Cost (\$)

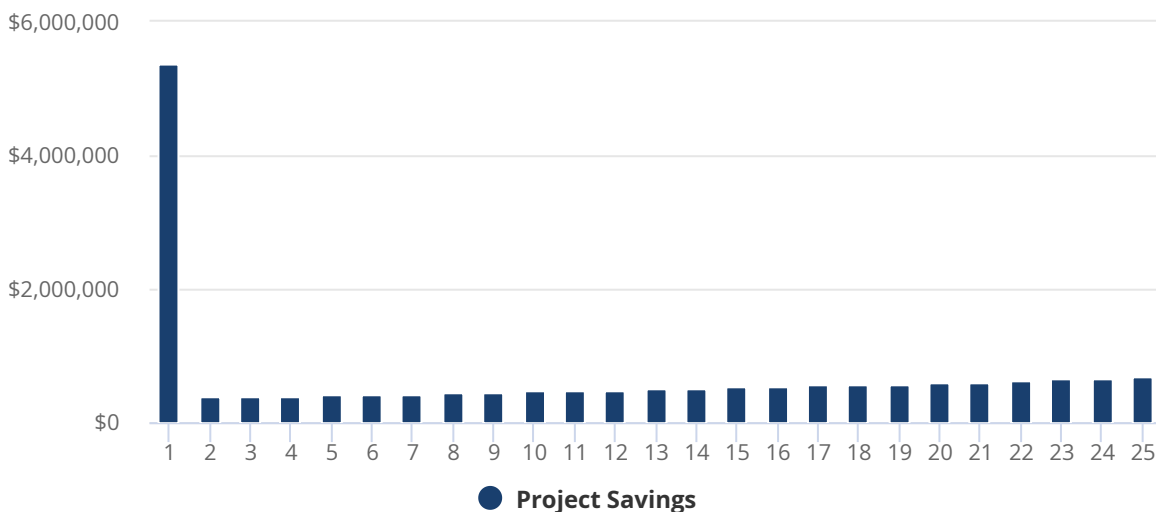
\$17,721,541

Lifetime Savings (\$)

\$9,274,934

Net Gain (\$)

Project Savings Summary



Energy Improvements Summary

Energy Improvements	Useful Life (Years)	Net Installed Cost ⁴	Estimated Project Savings ³		
			Unit Savings First Year	Cost Savings First Year	Cost Savings ⁵ Lifetime
Solar PV - 4,000 kW	25	\$8,367,000	6,569,511 kWh	\$2,889,210	\$15,434,531
<i>Energy Consumed</i>			5,638,507 kWh	\$270,648	\$9,226,802
<i>Energy Exported</i>			931,004 kWh	\$108,462	\$3,697,629
<i>ITC (30%)</i>				\$2,510,100	\$2,510,100
<i>MACRS</i>	1	\$0		\$1,493,510	\$1,493,510
<i>Rural Energy Grant</i>	1	\$0		\$1,000,000	\$1,000,000
<i>Program Fee</i>		\$75,000		\$0	
<i>Land Title & LPIG</i>		\$4,130		\$0	
<i>Recording & Tax Cert</i>		\$477		\$0	
<i>District Servicing Fee</i>	25	\$0		-\$1,000	-\$25,000
<i>County Servicing Fee</i>	25	\$0		-\$7,260	-\$181,500
Electricity savings:			5,638,507 kWh 98.83%		
Project Totals (\$):		\$8,446,607		\$5,374,460	\$17,721,541

Key Financial Metrics

(Excluding finance costs)

\$8,446,607

Net Installed Cost (\$)

\$17,721,541

Lifetime Savings (\$)

\$9,274,934

Net Gain (\$)

2.5

Savings to Investment Ratio (SIR)⁶

5.0

Discount Rate (%)

\$11,500,416

Present Value of Discounted Lifetime Savings (\$)⁷

6.1

Capitalization Rate (%)

\$6,049,755

Estimated Property Value Increase (\$)⁸

PACE Finance Scenario

Displayed below are projected annual and cumulative cash flows over your project's estimated useful life, assuming the following project finance terms.

Finance Terms

\$8,446,607

Amount Financed (\$)

25

Term (years)

8.50

Interest Rate (%)

Project Finance Summary

\$8,446,607

Net Installed Cost (\$)

\$11,957,693

Interest Cost (\$)

\$17,721,541

Lifetime Savings (\$)

\$2,682,759

Net Cost (\$)

0.9

Savings to Investment Ratio (SIR), including Interest Cost

Chart of Cash Flows

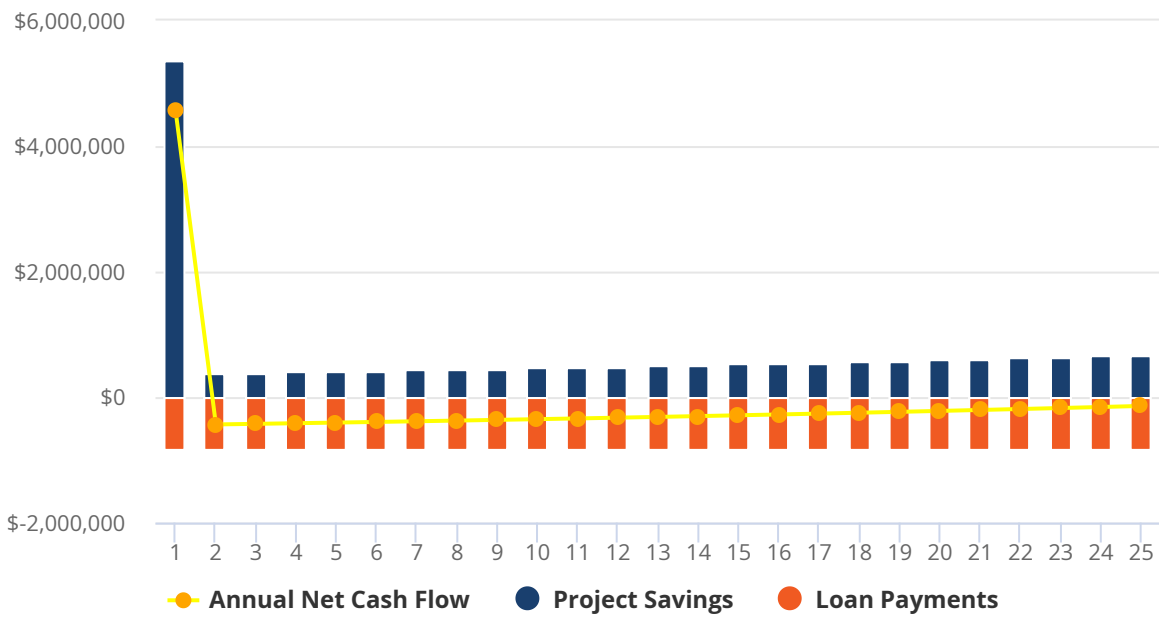


Table of Cash Flows

Year	Project Savings	Loan Payments	Net Cash Flows	
			Annual	Cumulative
Owner Contribution			\$0	\$0
1	\$5,374,460	\$816,172	\$4,558,288	\$4,558,288
2	\$380,271	\$816,172	-\$435,901	\$4,122,387
3	\$389,926	\$816,172	-\$426,246	\$3,696,141
4	\$399,821	\$816,172	-\$416,351	\$3,279,790
5	\$409,962	\$816,172	-\$406,210	\$2,873,580
6	\$420,355	\$816,172	-\$395,817	\$2,477,763
7	\$431,006	\$816,172	-\$385,166	\$2,092,597
8	\$441,922	\$816,172	-\$374,250	\$1,718,347
9	\$453,109	\$816,172	-\$363,063	\$1,355,284
10	\$464,574	\$816,172	-\$351,598	\$1,003,686
11	\$476,323	\$816,172	-\$339,849	\$663,837
12	\$488,365	\$816,172	-\$327,807	\$336,030
13	\$500,707	\$816,172	-\$315,465	\$20,565
14	\$513,354	\$816,172	-\$302,818	-\$282,253
15	\$526,316	\$816,172	-\$289,856	-\$572,109
16	\$539,601	\$816,172	-\$276,571	-\$848,680
17	\$553,215	\$816,172	-\$262,957	-\$1,111,637
18	\$567,168	\$816,172	-\$249,004	-\$1,360,641
19	\$581,467	\$816,172	-\$234,705	-\$1,595,346
20	\$596,122	\$816,172	-\$220,050	-\$1,815,396
21	\$611,141	\$816,172	-\$205,031	-\$2,020,427
22	\$626,533	\$816,172	-\$189,639	-\$2,210,066
23	\$642,307	\$816,172	-\$173,865	-\$2,383,931
24	\$658,474	\$816,172	-\$157,698	-\$2,541,629
25	\$675,042	\$816,172	-\$141,130	-\$2,682,759
Total	\$17,721,541	\$20,404,300	-\$2,682,759	

Key Assumptions

Energy Cost

\$0.048

Electricity Cost (\$/kWh)

\$17.00

Electricity Demand Cost (\$/kW)

3.0

Electricity Average Annual Escalation Rate (%)

\$0.117

Electricity Buyback Rate (\$/kWh)⁹

\$0.798

Natural Gas Cost (\$/therms)

3.0

Natural Gas Average Annual Escalation Rate (%)

Energy Consumption

(For the period July 2023 to July 2024)

39,032

Total Energy (MMBtu/yr)

5,817,560

Electricity (kWh/yr)

191,764

Natural Gas (therms/yr)

39.0

Total Energy Use Intensity (EUI)
(kBtu/SF-yr)

5.8

Electricity EUI
(kWh/SF-yr)

19.2

Fuel EUI
(kBtu/SF-yr)

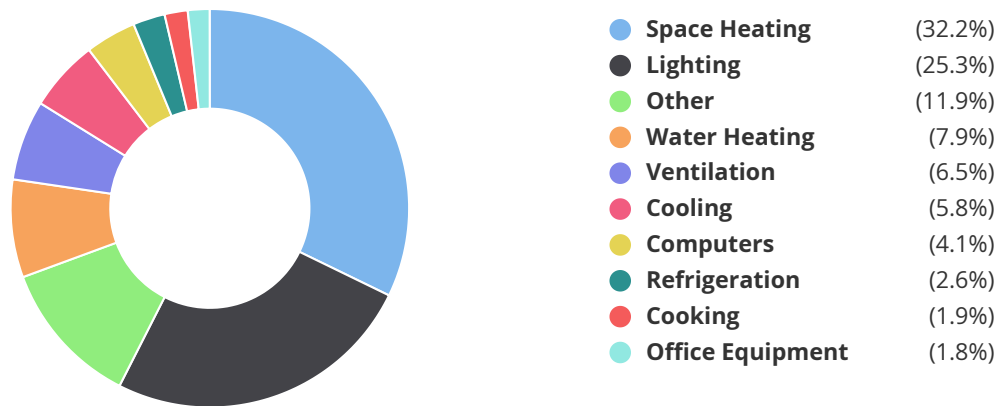
5,361

Typical Heating Degree Days
(HDD/yr)¹⁰

665

Typical Cooling Degree Days
(CDD/yr)¹⁰

The chart and table below displays your property's weather normalized energy consumption by end-use.



End-use	Total Energy			Electricity			Natural Gas		
	MMBtu/yr	kBtu/SF	Percent	kWh/yr	kWh/SF	Percent	therms/yr	therms/SF	Percent
Space Heating	12,429	12.4	32.2				124,286	0.1	65.0
Lighting	9,757	9.8	25.3	2,858,836	2.9	50.1			
Other	4,588	4.6	11.9	282,898	0.3	5.0	36,224	0.0	19.0
Water Heating	3,064	3.1	7.9				30,635	0.0	16.0
Ventilation	2,514	2.5	6.5	736,501	0.7	12.9			
Cooling	2,236	2.2	5.8	655,136	0.7	11.5			
Computers	1,591	1.6	4.1	466,164	0.5	8.2			
Refrigeration	1,002	1.0	2.6	293,493	0.3	5.1			
Cooking	720	0.7	1.9	211,012	0.2	3.7			
Office Equipment	687	0.7	1.8	201,176	0.2	3.5			
Total	38,586	38.6	100.0	5,705,216	5.7	100.0	191,145	0.2	100.0

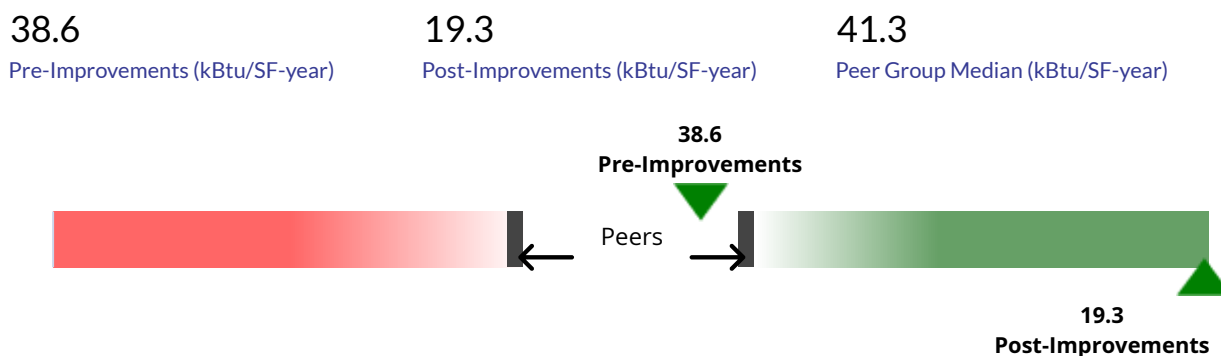
Energy Savings

Displayed below are baseline energy savings assumptions, subject to editing by the EPIC user where property-specific information is available.

- Your project's building is assumed to operate similarly to peer buildings in the same geographic area. Where default values have been applied, they represent average values from peer buildings.
- Baseline efficiency for existing equipment is assumed to be equivalent to ASHRAE 90.1 standard effective at the time of building construction or equipment installation, including an estimate of age-related performance degradation.
- Baseline heating equipment is assumed to be of the non-condensing type.
- Parking lot lighting/ventilation is excluded from the estimated energy use of the building.
- If the age of existing equipment is unknown and your building is >25 years old, all existing heating and cooling equipment is assumed to be 25 years old for purposes of establishing the baseline energy efficiency metrics, e.g., EER, combustion efficiency, etc., for existing equipment.
- If the age of existing equipment is unknown and your building is <25 years old, all existing heating and cooling equipment is assumed to be equivalent to the age of the building for purposes of establishing the baseline energy efficiency metrics, e.g., EER, combustion efficiency, etc., for existing equipment.
- Your building's energy consumption by end-use (space heating, cooling, DHW, lighting) is based on U.S. Energy Information Administration's (EIA) Commercial Building Energy Consumption Survey or U.S. Department of Energy's (DOE) Residential Energy Consumption Survey (for multifamily buildings of 5 or more units), as adjusted by EPIC to remove the influence of weather, and consider peer building's equipment infrastructure in the same geographic area.
- Your building's electricity cost per kWh and natural gas cost per therms is assumed to be consistent with EIA's average retail price for peer buildings in the same geographic area.
- Your project's actual energy use and cost savings may differ from estimates due to variations in building design and geometry, operating characteristics, tenant behavior, local climate, occupancy, equipment operation and maintenance, variations in building climate control, changes in utility rates and costs, and other factors. Energy savings estimates are provided as a guideline only without any warranties, expressed, or implied.
- Energy savings estimated in this report are only applicable to the specific equipment proposed for this project and should not be assumed applicable to equipment deemed to be similar.

Performance Comparison with Peer Buildings

Your building's pre-improvements weather normalized EUI is 38.6 kBtu/SF-yr. This can be compared to the peer group median EUI range of 45.4 to 37.1 kBtu/SF-yr. Your building's post-improvements EUI is estimated at 19.3 kBtu/SF-yr.



View [Performance Comparison](#) for additional information on benchmarking methodology.

Energy Improvements Detail

Solar PV:

4,000.00

Size (kW DC)

30

Investment Tax Credit (%)

20

REC Term (yrs)

Monthly

Net-metering Analysis Interval¹¹

\$8,367,000

Net Installed Cost (\$)

25

Estimated Useful Life (yrs)

6,569,511

Annual Energy Production (kWh)

Energy Production By Month

Month	kWh
January	416,578
February	417,649
March	573,120
April	596,994
May	669,893
June	651,422
July	679,172
August	640,183
September	588,898
October	553,163
November	400,446
December	381,993

Energy Savings Detail

Solar PV:

5,638,507

First Year Electricity Consumed (kWh)¹²

\$270,648

First Year Electricity Consumed (\$)

132,820,387

Lifetime Electricity Consumed (kWh)¹²

\$9,226,802

Lifetime Electricity Consumed (\$)

931,004

First Year Electricity Exported (kWh)

\$108,462

First Year Electricity Exported (\$)¹³

21,930,685

Lifetime Electricity Exported (kWh)

\$3,697,629

Lifetime Electricity Exported (\$)¹³

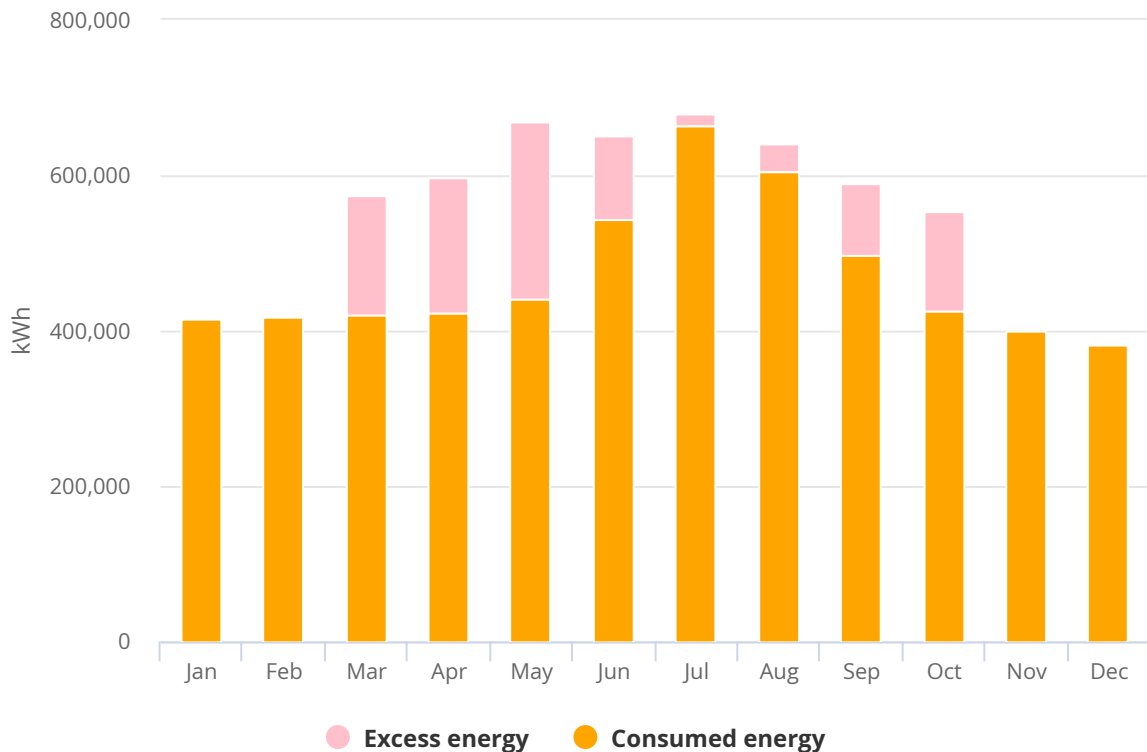
\$2,889,210

First Year Cost Savings (\$)

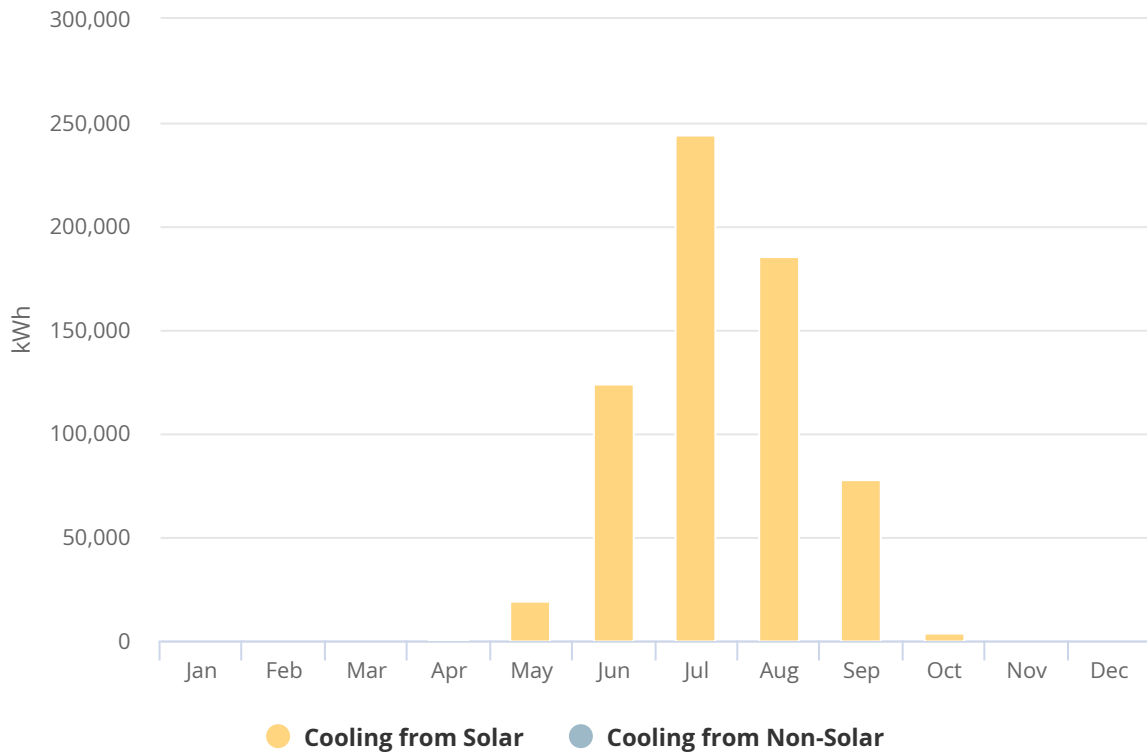
\$15,434,531

Lifetime Cost Savings (\$)

Solar Energy Production



Cooling Energy Consumption from Solar



Total Project Energy Savings Summary:

5,638,507

First Year Electricity Unit Savings (kWh)

132,820,387

Lifetime Electricity Unit Savings (kWh)

\$270,648

First Year Electricity Cost Savings (\$)

\$9,226,802

Lifetime Electricity Cost Savings (\$)

19,244

First Year Total Energy Unit Savings (MMBtu)

453,316

Lifetime Total Energy Unit Savings (MMBtu)

\$2,889,210

First Year Total Energy Cost Savings (\$)

\$15,434,531

Lifetime Total Energy Cost Savings (\$)

Post-Improvements EUI

19.3

Total Energy Use Intensity (EUI)
(kBtu/SF-yr)

0.1

Electricity EUI (kWh/SF-yr)

19.1

Fuel EUI (kBtu/SF-yr)

 **Environmental and Societal Benefits:**

5,392

Pre-Improvements CO₂e/yr Emissions (MT)

5,039

First Year CO₂e Emissions Reduction (MT)¹⁴

1,781

Post-Improvements First Year CO₂e Emissions (MT)

118,708

Lifetime CO₂e Emissions Reduction (MT)¹⁴

149.4

Job-Years Created¹⁵

Additional Installed Cost

Program Fee:

\$75,000

Installed Cost (\$)

Land Title & LPIG:

\$4,130

Installed Cost (\$)

Recording & Tax Cert:

\$477

Installed Cost (\$)

Additional Post-Installation Cost

District Servicing Fee:

\$1,000

Post-Installation Cost per Year (\$)

25

Term (yrs)

All

Cost Applied to Years

\$25,000

Lifetime Cost (\$)

County Servicing Fee:

\$7,260

Post-Installation Cost per Year (\$)

25

Term (yrs)

All

Cost Applied to Years

\$181,500

Lifetime Cost (\$)

Additional Post-Installation Savings

Rural Energy Grant:

\$1,000,000

Post-Installation Savings per Year (\$)

1

Term (yrs)

All

Savings Applied to Years

\$1,000,000

Lifetime Savings (\$)

Additional Tax Benefits, Credits & Grants

MACRS:

\$1,493,510

Tax Benefits, Credits & Grants (\$)

1

Term (yrs)

All

Savings Applied to Years

\$1,493,510

Lifetime Savings (\$)

Footnotes

¹ EPIC™ predictive analytics are powered by data collected by SRS over the past decade in the performance of thousands of energy improvement project analyses. EPIC's algorithms are augmented by utility energy efficiency program technical resource manuals and industry best practice energy savings calculation methodologies.

² Using your building's address, EPIC conducts a search of the Climate and Economic Justice Screening Tool (CEJST) to confirm if it is in a Disadvantaged Community (DC). Owners of buildings in DCs may be eligible for government-funded technical and financial assistance and incentives for qualifying energy improvements.

³ Energy savings estimates are weather normalized. This methodology, based on typical year weather conditions over a 20-30 year period, accounts for yearly weather variations to ensure estimates are representative of your property's typical performance. Projects with multiple improvements, where applicable, include an assumption for interactive effects.

⁴ Net installed cost equals gross cost less incentives.

⁵ Lifetime energy cost savings equal the estimated savings over the estimated useful life of the improvements. Estimates include average annual utility price escalation factors of 3% for electricity and 3% for fuels, and an annual performance degradation factor to account for the percent by which the equipment performance is forecast to degrade each year. Present value of discounted lifetime savings are displayed in the Key Financial Metrics section. When tax impacts estimation is enabled, estimates of first year and lifetime cost savings include federal and state income tax liabilities related to the project's energy cost savings. When depreciation impacts estimation is enabled, the project's estimated savings will also include income tax savings from depreciation. Estimates of income tax impacts should be considered approximations and should not be relied on for tax, legal or accounting advice. You should consult a tax professional to verify tax impacts.

⁶ SIR equals the ratio of project's estimated lifetime savings to its installed cost. Energy savings estimates include average annual utility price escalation factors for electricity and fuels, and an annual performance degradation factor to account for the percent by which the equipment performance is forecast to degrade each year. When income tax and depreciation impacts estimation is enabled, the project's lifetime savings will include the net effect of increased tax liabilities related to the energy cost savings and reduced tax liabilities related to depreciation and interest expense, where applicable.

⁷ Present value is the current worth of a future stream of cash flows given a specified rate of return. Your project's cash flows are discounted at a 5% discount rate. The higher the discount rate the lower the present value of future cash flows.

⁸ Property value increase is calculated by dividing the estimated first year improvement in net operating income (NOI) of \$2,880,950 by the estimated capitalization rate of 6.1%. NOI impacts include energy savings and other recurring costs/savings, e.g., maintenance savings. Tax and finance-related items, e.g., loan payments, tax credits, and depreciation are excluded from NOI.

⁹ Electricity buyback rate represents the dollar value per kWh applied by utilities in net-metering programs to determine the building owner's electricity billing credits for solar PV system-produced excess electricity exported to the utility grid.

¹⁰ Typical HDD and CDD are based on statistically analyzed weather data for a 20-30 year historical period, and used in the weather normalization analysis to estimate energy savings that are representative of your property's typical performance.

¹¹ Net-metering analysis interval represents the utility's net-metering billing interval, e.g., monthly, quarterly, annually, applied in the calculation of solar PV system-produced excess electricity exported to the utility grid or onsite energy storage.

¹² First year and lifetime electricity consumed values (kWh) are calculated as the difference between the solar PV system's estimated electricity production and the subject building's estimated electricity consumption. Such unit consumption values are converted to dollars by multiplying the kWh values by the subject building's cost per kWh and accounting for estimated utility cost escalation and solar PV system performance degradation.

¹³ First year and lifetime electricity exported dollar values are calculated by multiplying the estimated solar PV system-produced excess electricity (kWh) exported to the utility grid by the utility's electricity buyback rate per kWh.

¹⁴ Building direct CO₂e emissions reduction (metric tons) are estimated using U.S. EPA Emission Factors for on-site combustion. Indirect CO₂e emissions reduction, i.e., associated with purchased electricity, is based on EPA's eGRID2021 data representing fuel mix by state. Non-baseload output emission rates are used, including transmission and distribution losses at 4.5%.

¹⁵ Job-years created values are based on methodology outlined in the American Council for an Energy-Efficient Economy Study, Energy Efficiency Job Creation: Real World Experiences, 2012.

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