YES SOLAR SOLUTIONS

Case Study: Replacements, Ltd. Reduces Costs 30%

1 Background

Replacements, Ltd. made the decision to go solar, to maintain their commitment to sustainability, and reduce the costs associated with lighting and conditioning their 300,000 sq. foot warehouse. Yes Solar Solutions was referred to Replacements, Ltd. by another solar company due to the size and scope of the project.

2 Solution

The original bid was for a "sell-all" (all electricity is sold back to the utility). The building had four panels, all on separate schedules. Our analysis uncovered that dividing the array into four smaller systems, all on the same roof, would allow it to be net-metered (using the electricity generated before sending excess back to the grid). We also compared lines and usage to determine the ideal configuration that maximized the impact of solar power.

The result was a 1.32 MW solar project, divided into four sections. After engineering and interconnection approval from Duke Energy, the hard work started. Scaffolding for ease of access to the second story roof and a plywood walkway to protect the standing seam metal roof were first, followed by 9,000 S-5 clamps and racking. Finally a total of 4,072 solar modules and 130 HiQ inverters were put to use.

3 Results

By making the move to solar, Replacements, Ltd. was able to bolster its commitment to sustainability, reduce operating expenses, and have a positive, quantifiable impact on its surrounding community.

Measurable highlights benefiting Replacements Ltd. include:

1,900,000 kWh generated

4,300,000 kWh consumed

Energy cost **reduced 30%**

Equivalent environmental impacts annually:

✓ Greenhouse gas emission sequestered:

85,871,880 miles
driven by an average passenger vehicle

12,208 tons
of waste recycled instead of landfilled

✓ Co2 emissions from:

3,949,357 gallons
of gasoline consumed

38,332,305 pounds
of coal burned

***Statistics calculated from epa.gov**

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