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Power Your Tomorrow

CASE STUDY ▸ COMMERCIAL SOLAR

Leveraging Solar for Achieving Financial & Sustainability Goals

O&G INDUSTRIES

Location: Connecticut
Industry: Construction
Solution: Solar + Storage

1,564 kW	280 kW	1,432 Tons	$9.91 M
Solar Capacity	Energy Storage	Carbon Offset per Year	~Savings & Revenue

How O&G Industries, Inc. decreased their electric spend while pursuing their sustainability goals with solar installations at multiple locations

The Challenge

In 2018, O&G Industries, Connecticut's largest privately held construction company, adopted an Environmental Policy formalizing its commitment to conduct operations in an environmentally responsible and sustainable manner. Implementing this policy was a significant undertaking for the company given the size, complexity, and energy demands of its operations, and its business and financial goals.

The Solution

O&G approached the challenge in a systematic and data driven manner. This resulted in the decision to add solar installations to its sites to make progress towards their strategic goals for cost-efficient and environmentally-friendly operations.

Having completed some of the most challenging and complex construction projects throughout the country, initially O&G explored using internal resources to design and develop the solar installations. However, instead O&G chose to partner with an experienced solar developer, Solect Energy.

> When we found Solect and they offered all of the necessary project services in one bundle - economic analysis, familiarity with state and federal incentive programs, experience with the utilities, design and engineering, purchase of solar products and the rapidly changing technology, and the installation capabilities - that's what really made us decide to go with them.
>
> \- Matt Tobin
> Engineering Manager, O&G's Power Division

The Outcome

To date, O&G Industries and Solect Energy have developed solar installations at three O&G sites: one ground mount array and two rooftop arrays. The solar installation that has received the most attention is the 1.3 megawatt (MW) ground mount solar array that went live in spring 2020. Built atop five acres of reclaimed and reforested land at O&G's Southbury Quarry, the solar array is coupled with a 280-kilowatt (kW) Energy Storage System (ESS) that augments energy supply during peak demand cycles. This includes early morning hours when the sun isn't strong enough to generate at full capacity yet demand at the facility peaks with the startup of the quarry and asphalt plant operations. The solar farm powers the entire complex: the heavy equipment maintenance garage, scale house, asphalt plant, concrete plant, and crushing plants. Surplus power is stored and can be fed back into the utility's grid. It's the first such industrial application of its kind in Connecticut.

In addition to the solar farm, solar arrays were installed on the rooftops of the company's fleet maintenance in Torrington, Connecticut, and the mason supply showroom in Bridgeport, Connecticut in 2019. These two rooftop arrays enabled O&G to put unused space to work for the company. Plus, unlike a solar ground mount installation, it takes less time and money to install a rooftop solar array because no land alteration or environmental impact studies need to be done to prepare the area.

The two rooftop arrays have a 263.7 kW combined system capacity for a $30,600 electric bill savings in the first year, a number that rises with inflation. Plus, the two rooftop systems provide $26,500 combined incentive revenue to O&G annually. Bridgeport with the larger installation (147.7 kW), has 5.5 year payback for the project; Torrington, with a 116kW installation, has a 6 year payback.

As O&G Industries nears its 100th anniversary there is a focus on continuing this critical work to be a good environmental steward and ensure the planet (and company) is around for another 100 years.

O&G Industries - Torrington, CT

View the overview video to learn more

> The investment required for a solar-plus storage project produces attractive returns while also helping to make our world more sustainable. Companies like Solect possess the expertise and knowledge to fully understand the cost of development and the savings unique to specific localities and utilities. The ability to produce the power a facility requires is now within reach of a significant portion of energy consumers, and companies like O&G are helping lead the way.

- Andreas Schmid
Vice President of Business Development, Solect Energy

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