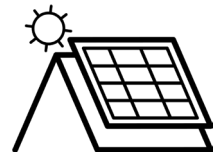




Case Study — Parallel Products Duchaine Boulevard Recycling Facility

PVKIT® & S-5-V™ Mini



At-A-Glance

Project Name

Parallel Products Duchaine Boulevard Recycling Facility

Location

New Bedford, Massachusetts

Owner Developer

Parallel Products

EPC

ECS Electric, Inc.

Module Manufacturer

CSUN

Inverter Manufacturer

Solectria

Mounting/Racking Manufacturer

S-5!

Roof Profile

3" trapezoidal double-lock standing seam metal roof

Industry

Commercial

The Situation

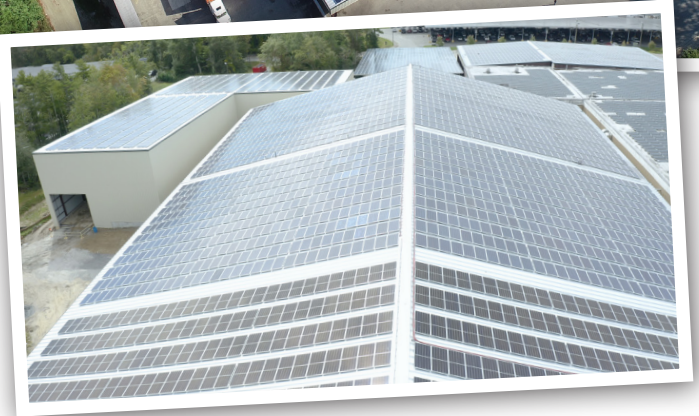
Due to the power requirements for the Commonwealth's largest recycling campus, PPNE sought to offset its carbon footprint by adding rooftop solar.

The Result

With the addition of a 1.9 MW solar array secured in place using the PVKIT direct-attach, rail-less solar mounting solution, PPNE is not only able to offset its power usage, but it is selling power back to the grid.

Project Stats

- **Roof Measurements:** Total >150,000 square feet
- **Roof Pitch Varies:** ½:12 to 3:12
- **Project Size:** 1.9 Megawatt
- **S-5! Products Supplied:**
 - PVKIT® (6500)
 - S-5-V™ Mini clamp (6500)



The Project

Parallel Products is a leader in the sustainability industry, the ethanol industry and in green energy production—a one-stop sustainability shop. Many of its clients are subject to zero-landfill policies, so Parallel Products repurposes and recycles common materials.

Located in historic New Bedford, an old whaling town on the Southern Coast of Massachusetts, Parallel Products of New England (PPNE) recently completed its Duchaine Boulevard project, a center for processing and technology development—on its 130-acre campus for recycling and the production of green energy.

The campus houses solar energy, green energy production and recycling recovery. The solar energy generated on-site reduces energy costs and fossil fuel consumption for energy, ultimately resulting in decreasing the company's carbon footprint and contributing power back to the grid.

The new Duchaine Boulevard facility features a standing seam metal roof with 1.9 MW of rooftop solar PV. The EPC contractor recommended the **PVKIT®** — a direct-attach™ rail-less solar solution to provide a secure, economical and penetration-free method for attaching the solar modules to the metal roof.



The Challenge

PPNE processes/recycles glass, aluminum and recyclable plastic containers collected through Massachusetts's bottle deposit program. PPNE identified a need for a glass processing facility as the state's only bottle production facility closed in 2018, which left the Commonwealth limited solutions for glass handling and a large accumulation of glass due to difficulties in transporting glass to out-of-state recycling markets.

The new glass processing Duchaine Boulevard facility is a necessary development for the Commonwealth to ensure the recycling of glass bottles versus disposal and/or lower value usages such as fill.

The company's main goal was to offset its carbon footprint since PPNE annually processes 3,710 tons of aluminum, 3,892 tons of recyclable plastic containers and now 50,000 tons of glass, utilizing heavy machinery and equipment that consume an enormous amount of power.

The Solution

PPNE decided the best way for it to offset its electrical usage was to add solar. This new facility has increased solar capacity by 1.9 MW, part of its greater 4 MW solar initiative on campus.

PPNE chose the PVKIT and S-5-V Mini clamps to secure the solar panels to the metal roof. The PVKIT's pre-assembled components enabled solar installers to "lay & play" PV modules with tested, engineered, cost-saving, attachment.

The project has enabled PPNE to further its sustainability goals. Not only is the company offsetting its carbon footprint, but it has also far exceeded what it consumes on-site and is selling power back to the grid via the local utility company through the Solar Massachusetts Renewable Target (SMART) Program, a long-term sustainable solar incentive program that promotes cost-effective solar development in the Commonwealth of Massachusetts.

How Did the PVKIT Help?

- Cut material costs in half, including freight costs
- Cut installation costs significantly by eliminating the assembly and installation required by traditional racking
- Improved aesthetics
- Eliminated the risk of a voided roof manufacturer warranty—no holes/no damage

Long-Term Outlook

Once a Polaroid manufacturing facility (now dubbed the green energy center), PPNE recycled and repurposed a rather neglected and underutilized property, and with the addition of rooftop solar, is now generating power, providing recycling services, adding jobs locally and contributing to the economic development of the city.

"The S-5! PVKITs and S-5-V Mini clamps really work well on the type of buildings we generally use in the recycling business, which are prefab standing seam metal roofs. The installation was much faster than we anticipated. With on-site demonstrations and installation instructions provided by S-5!, it was a really short learning curve and a really clean installation. If you take a bird's eye view, the system is clean and attractive; it almost looks like an extension of the building. S-5! direct-attach looks natural, non-obtrusive, built-in, sleek and low-profile. S-5! is a great product, and I would highly recommend it."

—Tim Cusson, VP of Business Development, Parallel Products, New Bedford, Massachusetts



The Right Way® | (888) 825-3432 | www.S-5.com

