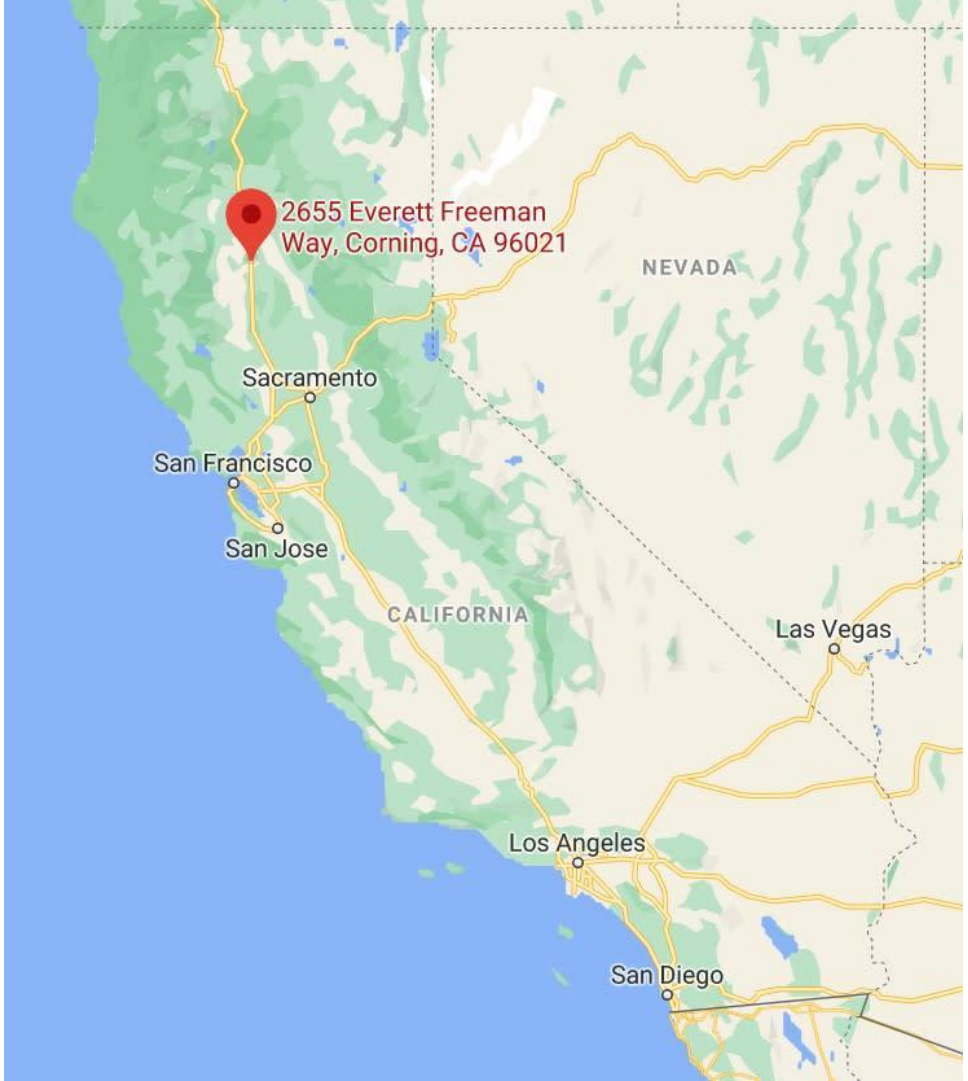
PV Solar Solutions for Paskenta Band of Nomlaki Indians with AES

AES
Alternative Energy Systems Inc.

Paskenta Band of Nomlaki Indians, Northern, CA

- About
- Paskenta Band of Nomlaki Indians is a federally-recognized sovereign nation located in Northern California with a deep tradition of resiliency, culture, and a strong vision for the future of all peoples living in the Corning-Paskenta Tribal Community.
- The Paskenta Band of Nomlaki Indians is part of the enduring legacy of Everett Freeman (1931-2010), an elder of the Paskenta Band of Nomlaki Indians who led the efforts of the tribe to regain federal re-recognition of his community in 1994. His commitment extended beyond the Nomlaki community to its surrounding neighbors and land, with a keen understanding that cooperation and mutual support would raise the standing of all.
- Paskenta Band of Nomlaki Indians
- Members of the Paskenta Band of Nomlaki Indians have lived in Northern California for generations, in what is now called Tehama and Glenn counties. Paskenta lands lie between Red Bluff, California, and Stoney Creek, California, west of the Sacramento River.
- There were two major divisions of Nomlaki Indians in California: the Hill Nomlaki and the River Nomlaki. The Paskenta Band is Hill Nomlaki. The River Nomlaki occupied the territory east of the Hill Nomlaki in the Sacramento River Valley in present-day Tehama County.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CHEROKEE NOMLAKI ADMINISTRATION CENTER

The start of solar for Paskenta Band of Nomlaki Indians

In 2022 AES completed three solar PV projects for Paskenta Band of Nomlaki Indians at their Medical, Dental and Administration Clinics. These 3 projects were located in Corning, Ca with the purpose of reducing costs and the carbon footprint.

We are working together to start two more projects located at their new Community Center and Administration Buildings.

Proposed new site - Community and Administrative Building PV system

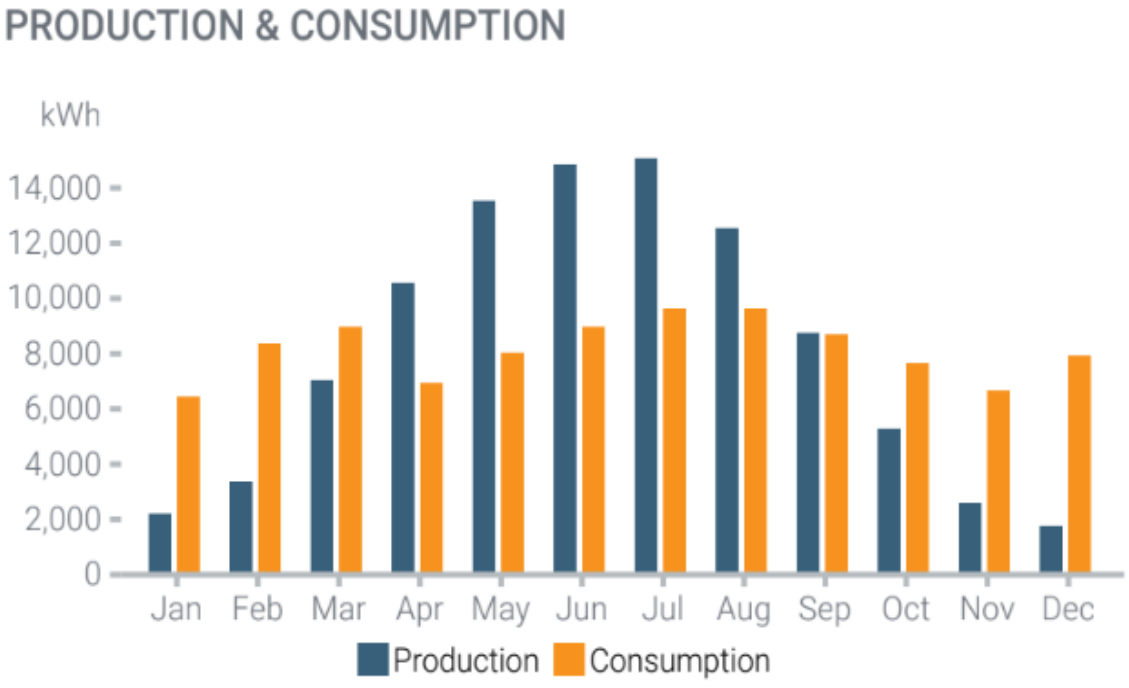
187 KW Roof mounted PV system attached on the community center and aggregated to the administration building. This allows for all panels at the site to be roof mounted and not ground mounted, saving cost and space.

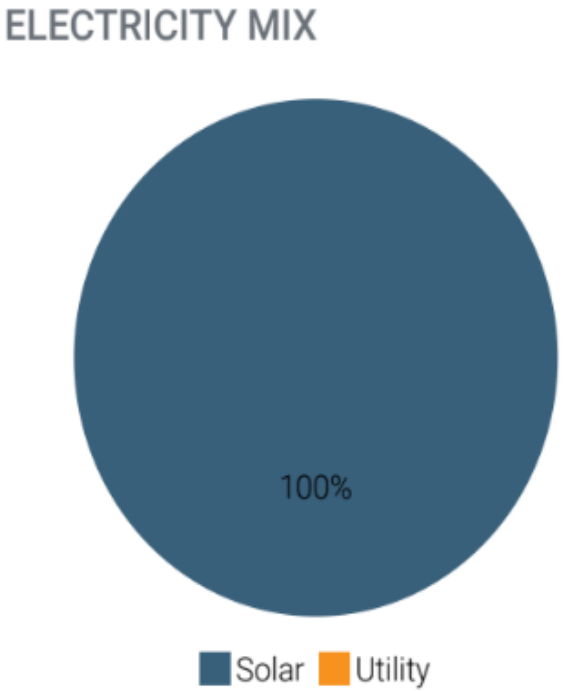
Aggregation and System Explained

NEMA-Net Energy Metering Aggregation works in a way to allow the generated electricity to be allocated to both meters. It is not a set KW of solar dedicated to each meter. It is more fluid. Whichever building is using the energy, that's where the credit will be given. This allows for more flexibility in case one building uses more or less than predicted.

Original project was increased to 186 KW because we found that we could fit more panels on the roof than originally expected. Or initial design showed offsetting just 80% of the community building, we increased the size to cover 111% of the expected usage to account for any unforeseen additional usage. This overage can be shared between the two buildings via NEMA.

Designed to cover 100% of current usage for Admin Bldg





Current usage: 97,848 kwh/year. Production estimate: 97,500 kwh/year

Projected Utility Savings

	Pre-solar	Post-solar
YEAR 1 UTITLITY BILL	$30,632	$3,419
ANNUAL CONSUMPTION	97,848 kWh	97,848 kWh
UTILITY COMPANY	Pacific Gas & Electric Co	Pacific Gas & Electric Co
UTILITY RATE	A-1 Small General	A-1 Small General

Savings are based on several factors. 1. Utilizing current Net Energy Metering. 2. Does not include PGE charges for demand and non-bypass fees. 3. Based on the usage assumptions. Using more power than the solar produces, will result in true up bill at the end of the year. 4. Assuming A-1 rate tariff. PGE has the ability to retire/change rate tariffs.

Environmental Savings Equivalent To:

Vehicles Taken Off Road
7

Number of Tress Planted
19,307

Miles Per Year Saved
74,553

Acres of US Forests Saved
617.20

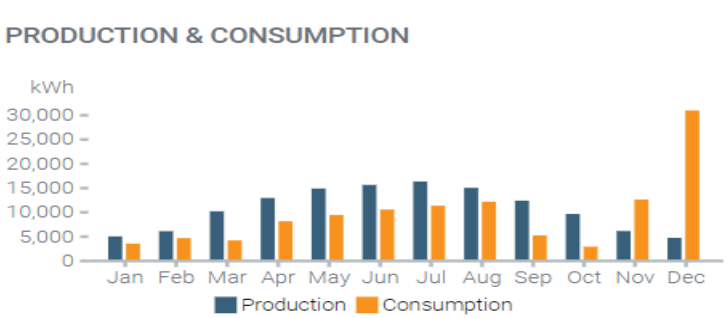
Tanker Trucks of Gas Saved
10

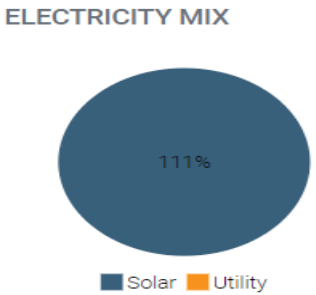
Railcars of Coal Saved
4

Barrels of Oil Saved
1,751

Pounds of Coal Saved
808,792

Designed to 111% of usage of the Community Bldg





	Pre-solar	Post-solar
YEAR 1 UTITLITY BILL	$35,719	$300
ANNUAL CONSUMPTION	116,200 kWh	116,200 kWh
UTILITY COMPANY	Pacific Gas & Electric Co	Pacific Gas & Electric Co
UTILITY RATE	A-1 Small General	A-1 Small General

Estimated usage 116,000 kwh/year. Production estimate: 128,760 kwh/year. There was limited data for usage available, this was an estimated of what will be used. Limited space allowed for less than 100% coverage.

Projected Utility Savings

	Pre-solar	Post-solar
YEAR 1 UTITLITY BILL	$35,719	$3,138
ANNUAL CONSUMPTION	116,200 kWh	116,200 kWh
UTILITY COMPANY	Pacific Gas & Electric Co	Pacific Gas & Electric Co
UTILITY RATE	A-1 Small General	A-1 Small General

Savings are based on several factors. 1. Utilizing current Net Energy Metering. 2. Does not include PGE charges for demand and non-bypass fees. 3. Based on the usage assumptions. Using more power than the solar produces, will result in true up bill at the end of the year. 4. Assuming A-1 rate tariff. PGE has the ability to retire/change rate tariffs.

Environmental Savings Equivalent To:

Vehicles Taken Off Road
7

Number of Tress Planted
20,442

Miles Per Year Saved
78,933

Acres of US Forests Saved
653.47

Tanker Trucks of Gas Saved
11

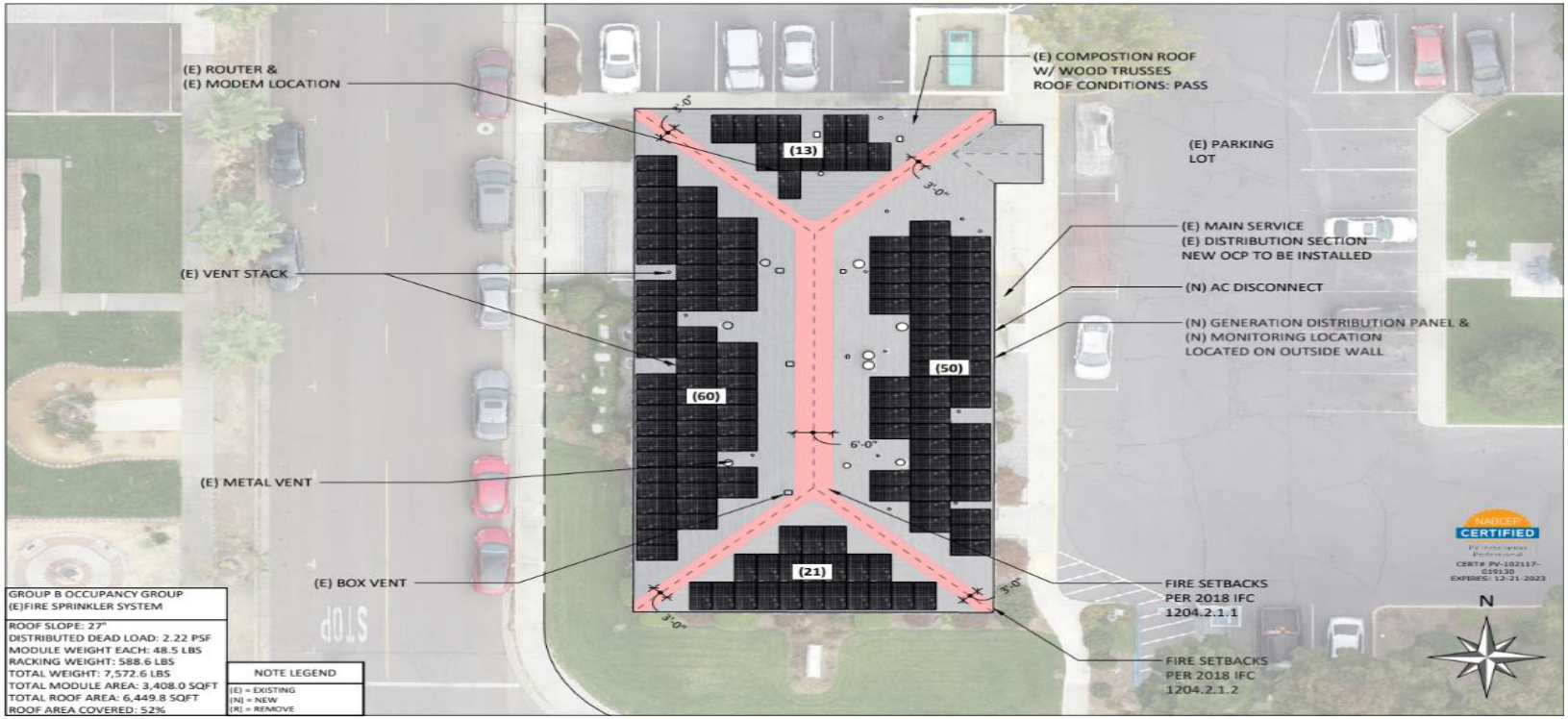
Railcars of Coal Saved
4

Barrels of Oil Saved
1,854

Pounds of Coal Saved
856,314

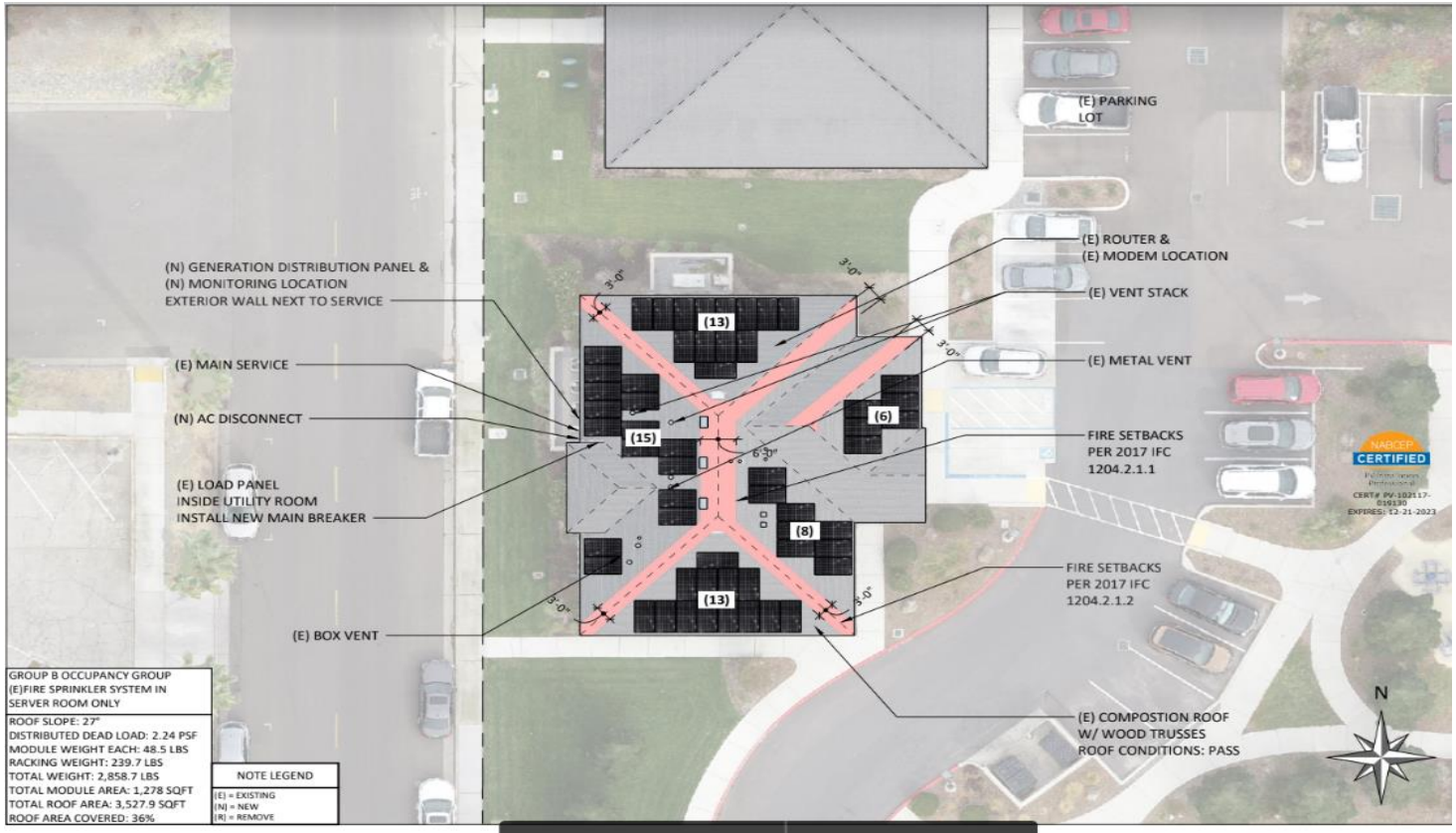
Completed Project Overview

Dental Clinic, Corning CA: 50.26 KW Roof Mount PV System



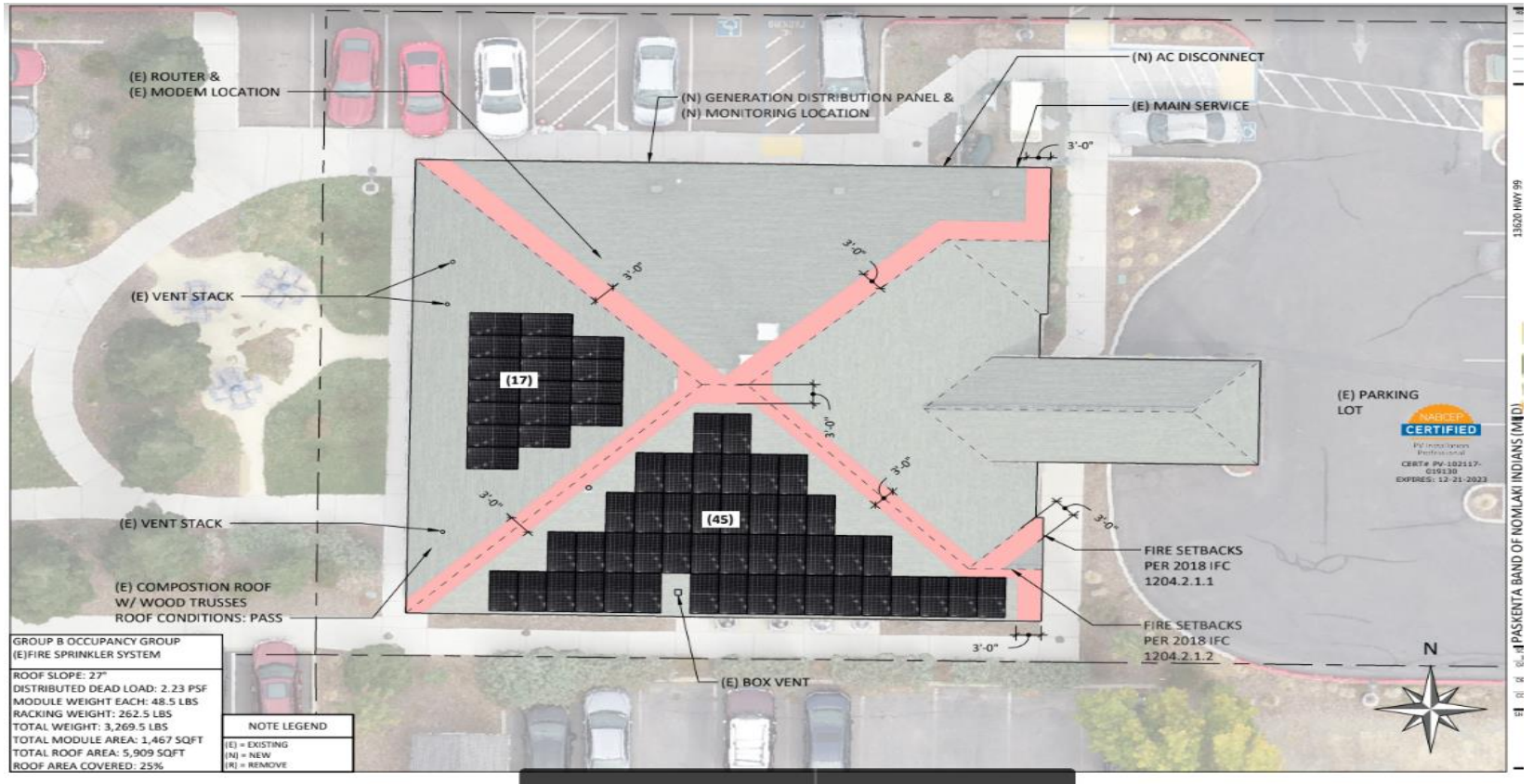
Completed Project Overview

Administration Building, Corning, CA 19.2 KW



Completed Project Overview

Medical Clinic, Corning, CA 21.6 KW Roof Mounted PV Sytem



Paskenta Band of Nomlaki Indians Energy Roadmap