

## KCEC TAOS WASTE WATER TREATMENT PLANT



#### THE OPPORTUNITY

This project was erected to counterbalance the operational costs of the Taos Valley Regional Wastewater Treatment Pant, funded by the U.S. Department of Agriculture's Rural Utilities Service with a budget of over \$2 million.

#### THE PARTNERSHIP

We partnered with Kit Carson Electric to construct their largest array yet of over 4 MW, playing a significant role in the coop's goal to generate 100% of day time energy consumption through solar production.

#### THE IMPACT

Built with all local labor, this system includes more than 12,000 solar panels and powers Kit Carson Electric's largest electric system facility as well as coop member base.

- ✓ PV System Size: 4.19 MW DC
- ✓ Year Completed: 2020
- Type: Ground mount single axis tracker
- Generates enough electricity to power more than 1,500 NM homes



PPC SOLAR INC. - 245 PASEO DEL CANON EAST, TAOS, NEW MEXICO 87571



## KCEC AMALIA 1 ARRAY



#### THE OPPORTUNITY

The construction of a 14 acre array, generating enough solar energy to power all businesses and residences in north central NM on sunny days.

#### THE PARTNERSHIP

Continuing our partnership with Kit Carson Electric in the implementation of their solar initiative, we built the Amalia array with the goal of improving service in the northern part of the county to offset use from major commercial customers.

#### THE IMPACT

This array consists of 5,280 solar panels and will annually generate more than 2.9 million kWh, achieving CO2 offsets equivalent to planting 221 acres of forest.

- ✓ PV System Size: 1.31 MW DC
- ✓ Year Completed: 2018
- ✓ Type: Ground mount single axis tracker
- Generates enough electricity to power about 350 NM homes



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## SPRINGER ELECTRIC COOP ARRAY



### THE OPPORTUNITY

\$3.4 million of USDA funding was allocated to this project in an effort to support rural communities and the agricultural industry by making energy more affordable, accessible and sustainable.

### THE PARTNERSHIP

PPC Solar worked with Springer Electric Coop to carry out their solar initiative, installing 3,888 solar panels. This is a partnership that remains strong today as we continue to monitor / optimize the energy production and distribution to coop customers.

### THE IMPACT

This project expanded the available energy sources among rural communities, generating enough electricity to power over 400 homes in the counties of Colfax, Harding, Mora, San Miguel and Union.

- ✓ PV System Size: 1.83 MW DC
- ✓ Year Completed: 2015
- ✓ Type: Ground mount single axis tracker
- ✓ Generates enough electricity to power about 400 NM homes



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## KCEC BLUE SKY ARRAY



#### THE PROJECT

With about 23 acres of land set aside for this project, we developed a single-axis tracking array with 5,280 solar panels. These rotate to follow the sun throughout the day to produce 25% more energy that a fixed array, maximizing energy stability for coop members.

#### THE PARTNERSHIP

PPC Solar has been a long time partner of Kit Carson Electric, having been involved in over 70% of the coop's solar projects. The Blue Sky Array has produced 21,140,640 kWh of energy for the coop between 2012 - 2019.

#### THE IMPACT

This array produced 3,300,000 kWh of solar energy in it's first year, generating local energy and local jobs while offsetting 21,535 tons of CO2.

- ✓ PV System Size: 1.5 MW DC
- ✓ Year Completed: 2012
- ✓ Type: Ground mount single axis tracker
- ✓ Generates enough electricity to power about 350 NM homes



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## UNIVERSITY OF NEW MEXICO KLAUR CAMPUS



#### THE OPPORTUNITY

Since the talking phase, it took almost five years to develop the vision to build a solar array that would be the largest one in the state of New Mexico, as of 2009.

#### **THE PARTNERSHIP**

The fact that this project came to fruition in a small, isolated, rural, multi-cultural community with no heavy industry to support it, is a testament to the vision, skill and resourcefulness of individuals and both local and national companies: in particular, Kit Carson Electric, American Capital Energy, Array Technologies, and PPC Solar.

#### THE IMPACT

The Taos branch campus was the first community college of its kind in the nation to be 100% powered by renewable solar energy. The facility supports both the UNM-Taos green jobs initiative and academic courses in sustainablity.

- ✓ PV System Size: 500 kW
- ✓ Year Completed: 2009
- ✓ Type: Ground mount single axis tracker
- Produces more than enough energy to serve all the power needs of the UNM-Taos Campus



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## **CITY OF ALBUQUERQUE - LADERA GOLF COURSE**



#### THE OPPORTUNITY

The project was part of the City of Albuquerque's New Clean Renewable Energy Bond (NCREB) funded Solar Energy initiative. It was the outcome of years of effort to reduce the city's environmental footprint

### THE PARTNERSHIP

KIIT Renewables partnered with PPC Solar who provided a turnkey solution that included all construction and electric work along with project management assistance and systems commissioning.

#### THE IMPACT

The systems resulted in substantial reductions in utility costs for the city with an under five year payback.

- 4 Parking Canopies covering 75 parking spaces
- ✓ PV System Size: 357.6 kW total utilizing Bi-facial modules
- ✓ Year Completed: 2018
- ✓ Type: Ground mount single axis tracker



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## SANDOVAL COUNTY ADMINISTRATIVE COMPLEX



#### THE OPPORTUNITY

Sandoval County's objective was to significantly reduce it's carbon footprint through solar energy by using the New Mexico's Guaranteed Utility Savings Contract and Pricing Agreement with Engie.

#### THE PARTNERSHIP

The Engie / PPC partnership developed a close working relationship with Sandoval County to provide turnkey solutions with 20 year guaranteed performance levels.

#### THE IMPACT

The systems provide a substantial portion of the \$10 million in utility cost savings for the county over the 20 year contract, producing about 417,750 kWh per year.

#### **SCOPE OF WORK**

- 4 Parking Canopies (District Court, Administration, Health Commons)
- ✓ PV System Size: 234.2 kW (all)
- ✓ Year Completed: 2018
- Type: Ground mount single axis tracker



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# TAOS SPA

### **SCOPE OF WORK**

- PV System Size: 102.96 kW DC
- Year Completed: 2019
- ✓ Generating: 176,590 kWh/year
- Type: Parking canopy array
- Reducing their utility electric bill by 99%



#### 3,620 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY

### **EQUIVALENT TO:**

- Planting 84,346 trees
- Driving reduced by 7,240,000 auto miles
- Recycling 11,439 tons of waste
- Displacing CO2 emissions from 410 homes



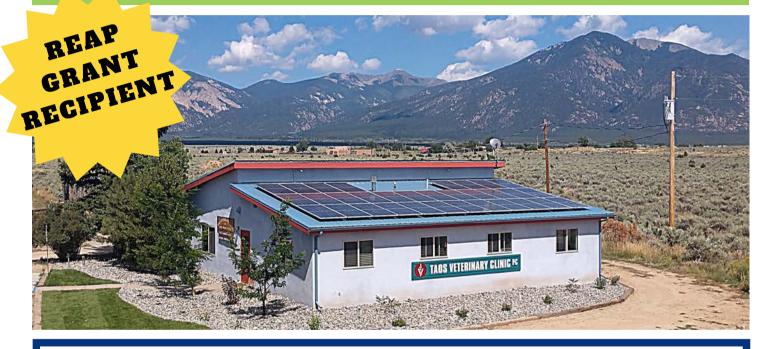
- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# TAOS VETERINARY CLINIC

### **SCOPE OF WORK**

- ✓ PV System Size: 10.8 kW DC
- Year Completed: 2019
- Generating: 19,862 kWh/year
- **Type:** Roof mount racking
- Reducing their utility electric bill by 83%



407 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

### **EQUIVALENT TO:**

- Planting 9,483 trees
- Driving reduced by 814,000 auto miles
- Recycling 1,286 tons of waste
- Displacing CO2 emissions from 46 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# MACARTHUR STABLES

## **SCOPE OF WORK**

- ✓ PV System Size: 2.655 kW DC
- ✓ Generating: 4,981 kWh/year
- Year Completed: 2019
- Type: Roof mount racking



102 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY

## **EQUIVALENT TO:**

- Planting 2,377 trees
- Driving reduced by 204,000 auto miles
- Recycling 322 tons of waste
- Displacing CO2 emissions from 12 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# ALBUQUERQUE FIRE STATION #21

### **SCOPE OF WORK**

- ✓ PV System Size: 73.44 kW DC
- ✓ Generating: 134,582 kWh/year

- Year Completed: 2019
- Type: Parking canopy array



#### 3,311 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY

## **EQUIVALENT TO:**

- Planting 77,146 trees
- Driving reduced by 6,622,000 auto miles
- Recycling 10,463 tons of waste
- Displacing CO2 emissions from 375 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# MORNING STAR FARM

## **SCOPE OF WORK**

- ✓ PV System Size: 4.06 kW DC
- ✓ Generating: 7,775 kWh/year
- ✓ Year Completed: 2018
- ✓ Type: Ground mount



159 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY

## **EQUIVALENT TO:**

- Planting 3,705 trees
- Driving reduced by 318,000 auto miles
- Recycling 502 tons of waste
- Displacing CO2 emissions from 18 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# COOKING STUDIO TAOS

## **SCOPE OF WORK**

- ✓ PV System Size: 8.4 kW DC
- ✓ Generating: 16,309 kWh/year
- ✓ Year Completed: 2018
- ✓ Type: Ground mount



#### 334 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY

### **EQUIVALENT TO:**

- Planting 7,782 trees
- Driving reduced by 668,000 auto miles
- Recycling 1,055 tons of waste
- Displacing CO2 emissions from 38 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# TAOS VILLAGE FARM

## **SCOPE OF WORK**

- ✓ PV System Size: 15.6 kW DC
- ✓ Generating: 30,182 kWh/year
- ✓ Year Completed: 2018
- Type: Ground mount



619 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY

### **EQUIVALENT TO:**

- Planting 14,423 trees
- Driving reduced by 1,238,000 auto miles
- Recycling 1,956 tons of waste
- Displacing CO2 emissions from 70 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# BARTEE RANCH

## **SCOPE OF WORK**

- PV System Size: 116.28 kW DC (6 systems total)
- Generating: 225,415 kWh/year
- ✓ Year Completed: 2018
- Type: Ground mount / roof mount arrays



#### 4,622 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY

## **EQUIVALENT TO:**

- Planting 107,692 trees
- Driving reduced by 9,244,000 auto miles
- Recycling 14,606 tons of waste
- Displacing CO2 emissions from 524 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# **KUYKENDALL SHOW PIGS**

## **SCOPE OF WORK**

- ✓ PV System Size: 3.48 kW DC
- ✓ Type: Ground mount

- ✓ Year Completed: 2017
- ✔ Generating: 6,758 kWh/year



#### 139 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

### **EQUIVALENT TO:**

- Planting 3,239 trees
- Driving reduced by 278,000 auto miles
- Recycling 439 tons of waste
- Displacing CO2 emissions from 16 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# CIMARRON SPRINGS INC.

## **SCOPE OF WORK**

- PV System Size: 10.26 kW DC (2 systems)
- ✓ Type: Roof mount / ground mount
- ✓ Year Completed: 2017 ✓ Generating: 18,161 kWh/year



#### 373 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

### **EQUIVALENT TO:**

- Planting 8,691 trees
- Driving reduced by 746,000 auto miles
- Recycling 1,179 tons of waste
- Displacing CO2 emissions from 42 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# DEAN PULVER CUSTOM WOODWORKING

### **SCOPE OF WORK**

- ✓ PV System Size: 5.13 kW DC
- Type: Ground mount
- ✓ Year Completed: 2016
- ✔ Generating: 9,854 kWh/year



202 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

### **EQUIVALENT TO:**

- Planting 4,707 trees
- Driving reduced by 404,000 auto miles
- Recycling 638 tons of waste
- Displacing CO2 emissions from 23 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# **BROWN RICE INTERNET**

## **SCOPE OF WORK**

- ✓ PV System Size: 20.52 kW DC
- ✓ **Type:** Parking canopy array
- ✓ Year Completed: 2016
- ✓ Generating: 35,726 kWh/year



732 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

### **EQUIVALENT TO:**

- Planting 17,056 trees
- Driving reduced by 1,464,000 auto miles
- Recycling 2,313 tons of waste
- Displacing CO2 emissions from 83 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# TREE OF LIFE WOODWORKS

## **SCOPE OF WORK**

- ✓ PV System Size: 3.99 kW DC
- ✓ Type: Roof mount racking
- ✓ Generating: 7,555 kWh/year
- ✓ Year Completed: 2016



#### 155 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

### **EQUIVALENT TO:**

- Planting 3,612 trees
- Driving reduced by 310,000 auto miles
- Recycling 490 tons of waste
- Displacing CO2 emissions from 18 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# SAN CRISTOBAL CABINS

### **SCOPE OF WORK**

- ✓ PV System Size: 17.28 kW
- ✓ Year Completed: 2015
- Generating: 33,013 kWh/year
- Type: Ground mount single axis tracker
- Offsetting 100% of electrical consumption for the cabin rentals



677 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

## **EQUIVALENT TO:**

- Planting 15,774 trees
- Driving reduced by 1,354,000 auto miles
- Recycling 2,139 tons of waste
- Displacing CO2 emissions from 77 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# ENCHANTED CIRCLE POTTERY

#### **SCOPE OF WORK**

- PV System Size: 13.77 kW
- Year Completed: 2015
- Generating: 24,705 kWh/year
- Type: Roof mount racking
- Offsetting 100% of electrical consumption for pottery studio and residence



#### 506 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

### **EQUIVALENT TO:**

- Planting 11,790 trees
- Driving reduced by 1,012,000 auto miles
- Recycling 1,599 tons of waste
- Eliminating 493,057 pounds of coal burned



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# PENASCO THEATER

### **SCOPE OF WORK**

- ✓ PV System Size: 4.05 kW
- ✓ Year Completed: 2015
- ✓ Generating: 6,915 kWh/year
- Type: Roof mount racking
- ✓ Offsetting 100% of electrical consumption for the theater



142 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

## **EQUIVALENT TO:**

- Planting 3,309 trees
- Driving reduced by 284,000 auto miles
- Recycling 449 tons of waste
- Displacing CO2 emissions from 16 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# ST. MARKS EPISCOPAL CHURCH

### **SCOPE OF WORK**

- ✓ PV System Size: 38 kW
- ✓ Type: Roof mount racking
- ✓ Year Completed: 2015
- ✓ Offsetting 100% of electrical consumption for the church



928 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

### **EQUIVALENT TO:**

- Planting 21,622 trees
- Driving reduced by 1,856,000 auto miles
- Recycling 2,932 tons of waste
- Displacing CO2 emissions from 105 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# WANNAMAKER POTTERY

## **SCOPE OF WORK**

- ✓ PV System Size: 9.72 kW DC
- ✓ Type: Roof mount racking
- ✓ Year Completed: 2015
- ✓ Generating: 17,354 kWh/year



### 356 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

## **EQUIVALENT TO:**

- Planting 8,295 trees
- Driving reduced by 712,000 auto miles
- Recycling 1,125 tons of waste
- Displacing CO2 emissions from 40 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# ANGEL FIRE FAMILY DENTISTRY

### **SCOPE OF WORK**

- ✓ PV System Size: 8.1 kW
- ✓ Year Completed: 2014
- ✓ Generating: 15,513 kWh/year
- ✓ **Type:** Ground mount single axis tracker
- Offsetting 100% of electrical consumption for the dental practice



318 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

### **EQUIVALENT TO:**

- Planting 7,409 trees
- Driving reduced by 636,000 auto miles
- Recycling 1,005 tons of waste
- Displacing CO2 emissions from 36 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid



# TAOS HIGH SCHOOL

## **SCOPE OF WORK**

- PV System Size: 50 kW
  - Year Completed: 2010
- ✓ Generating: 76,811 kWh/year
- Type: Parking canopy array



#### 65 TONS OF CARBON DIOXIDE (CO2) WILL BE ELIMINATED BECAUSE OF THIS PV ARRAY.

## **EQUIVALENT TO:**

- Planting 19 acres of trees
- Driving reduced by 134,760 auto miles
- Recycling 18.5 tons of waste
- Powering 16 homes



- 1. Feasibility Assessment
- 2. Finances (USDA REAP Grant opportunities, tax credits, financing options)
- 3. Site Planning & Design
- 4. Procurement & Installation
- 5. Project Completion Connect to the Grid