

# PIMA MINE ROAD SOLAR GENERATING FACILITY



# AVALON SOLAR

## Quick Facts

Location: 915 East Pima Mine Road, Pima County, Arizona

Project Size: 35 MWdc

Power Purchaser: Tucson Electric Power (TEP)

Anticipated Groundbreaking and Completion:  
Groundbreaking 2<sup>nd</sup> Quarter 2014 and Commercial Operations 4th Quarter 2014

## Project Benefits

- Efficient and environmentally friendly generation sufficient to power over 7,000 homes
- Zero emission generation will avoid discharging over 53,000 tons of carbon into the atmosphere each year which is the equivalent of taking 11,000 cars off the road
- Creates up to 300 construction jobs
- Generates approximately \$4 million in property tax revenue for Pima County while utilizing minimal County services and infrastructure
- Utilizes previously disturbed land
- No water used to generate power and minimal water consumption overall
- Helps Tucson Electric Power, Arizona and the United States meet renewable energy goals
- System equipment operates with indiscernible noise

## Project Overview

Clēnera, LLC (Clēnera) is responsible for developing and managing the Pima Mine Road Solar Generating Facility, otherwise known as Avalon Solar. The 35-megawatt (MW) single-axis tracking solar power photovoltaic (PV) facility is sited on approximately 500-acres of disturbed land in Pima County, Arizona. It is located 12-miles south of Tucson, in the vicinity of the ASARCO LLC (Asarco) Mission Mine Complex.

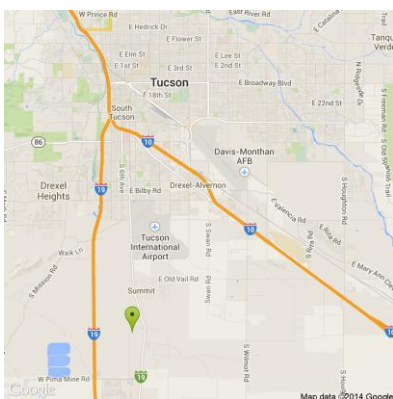
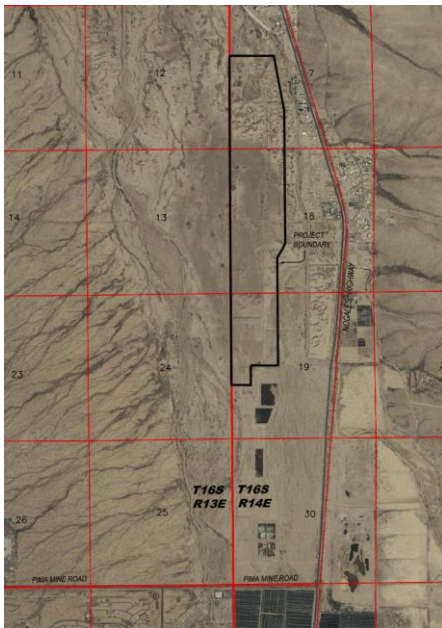
Once operational, the facility will produce clean, renewable electricity that will be sold to Tucson Electric Power (TEP) under a 20-year power purchase agreement (PPA). TEP provides electric power to 406,000 customers in the Tucson metropolitan area and is the second-largest investor-owned utility in Arizona.

At full capacity, the Pima Mine Road Solar Generating Facility will generate enough energy to power approximately 7,000 homes and will help TEP achieve the state mandate requiring that 15 percent of its power production come from renewable sources by 2025.

The Pima Mine Road Solar Generating Facility is being hosted by Asarco under a long-term lease. Asarco is an integrated primary copper producer headquartered in Tucson with approximately 2,700 employees in Arizona and Texas. The Avalon Solar project was born out of an Environmental Protection Agency (EPA) program established with the objective of siting renewable energy projects on disturbed lands, including mine sites. Collaboration between Asarco, TEP and Clēnera is making the project a reality.

The Asarco site conforms to TEP's land use policies and is ideally suited to host a solar generating station. The site is located outside of the Pima County Land Conservation System and its flat topography and past agricultural use provides suitable terrain and soil conditions for constructing a solar facility. In addition, the site is located in proximity to an existing TEP substation, which increases the efficiency and minimizes the additional transmission infrastructure required to deliver power generated to the electricity grid.

Clēnera anticipates breaking ground on the Avalon Solar project during the second quarter of 2014 and expects to begin commercial operations during in December, 2014.



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### Community and Environment

Avalon Solar is committed to being a good neighbor, a responsible community member and an environmental steward.

### Economic Benefits

The Pima Mine Road Solar Generating Facility should provide approximately \$4 million in property tax revenue to Pima County over the life of the project. These tax revenues will increase the County's tax base and ability to provide local services.

### Job Creation

There will be up to 300 jobs created during construction of the project. When the system is operational, it is estimated that there will be 4 permanent jobs for maintenance and security of the system.

### Construction Noise / Dust

Construction noise will primarily be associated with normal construction activity such as trucks moving on and off the site during the 5 to 9-month construction period. A Dust Control Permit from Pima County will be obtained prior to construction and native grass will be planted on the site for long-term dust mitigation.

### Environmental and Cultural Impact

The site is located outside of the Pima County Land Conservation System and a biological study completed for the Project found that no adverse effect is expected on federally-listed threatened and endangered species.

Clēnera is developing the Pima Mine Road Solar Generating Facility in compliance with all applicable cultural regulations, has completed a full archaeological survey of the project site, and has designed the project to avoid an important archaeological site that was not previously disturbed by agricultural use.

### Water Usage

One of the many advantages of PV solar technology is that it does not require water to generate power. The primary use of water during construction will be for dust control. When the solar facility is operational, water will be required only for washing the solar panels 1-2 times per year.

## Contact Information

If you have any questions or would like to learn more, please contact:

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## Mineral Discovery Center

Clēnera will also be installing a small PV solar plant at the nearby Asarco Mineral Discovery Center using the same type of solar panels as the Pima Mine Road Solar Facility. An exhibit explaining the benefits of solar photovoltaic energy generation and the Pima Mine Road Solar Facility will be placed at Asarco's Mineral Discovery Center. This will add yet another dimension to the Center's on-going efforts to provide education on the copper mining industry.