



# FORT MOJAVE INDIAN TRIBE and AHA MACAV POWER SERVICE

## **SOLAR PROJECT**

Pipa Aha Macav ~ The People by the River





History

Fort Mojave Indians are "The People by the River" (Pipa Aha Macav).

The Fort Mojave Reservation is located in the Tri-State area of Arizona, California, and Nevada along the Colorado River.

Our traditional way of life starts with respect of the land and nature. Everyday life consists of working to provide for our families and honoring our culture by practicing traditions and beliefs as our ancestors did before us.













## Fort Mojave Indian Reservation

**Members** 

**Members** 

**States** 

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- California
- Arizona
- Nevada

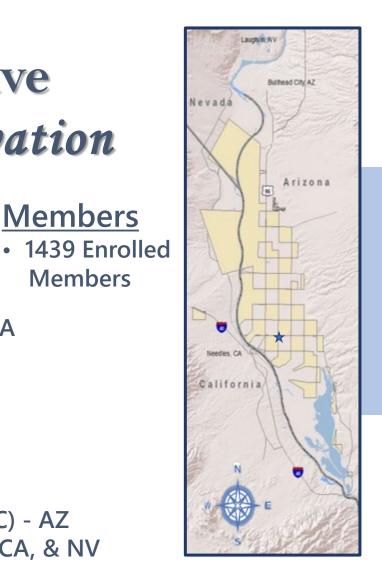
CA

NV

- Counties
- San Bernardino County, CA (12,633 acres)
- Mohave County, AZ (23,669 acres)
- Clark County, NV (5,582 acres)

#### Time Zones

- Mountain Time (UTC) AZ
- Pacific Time (PST) CA, & NV



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#### FORT MOJAVE INDIAN TRIBE AND AHA MACAV POWER SERVICES SOLAR PROJECT



### Tribal Council

- Governing body of the Fort Mojave Indian Tribe
- 7 Elected Tribal Council Members
- Timothy Williams, Chairman
- Shan Lewis, Vice-Chairman
- Colleen Garcia, Secretary
- Nichole Garcia
- Norvin McCord, Sr.
- Johnny Hemmers
- Cellina Reyes

About Us History

	AND INCOMENTS	FORT MOJAVE INDIAN TRIBE AND AHA MACAV POWER SERVICES SOLAR PROJECT					
	Business	<ul> <li>AVI KWA AME FARMS</li> <li>AHA MACAV POWER SERVICE</li> <li>FORT MOJAVE TELECOM</li> <li>SMOKE SHOPS</li> <li>HUUKAN GOLF &amp; MOJAVE RESORT GOLF CLUBS</li> </ul>	SPIRIT MOUNTAIN CASINO AVI RESORT & CASINO				
Contion       About Us	Departments	<ul> <li>WATER RESOURCES</li> <li>AHA MACAV HIGH SCHOOL</li> <li>AHA MACAV HOUSING</li> <li>AUTHORITY</li> <li>AVA ICH ASIIT TRIBAL LIBRARY</li> <li>CHILD CARE CENTER</li> <li>BOYS &amp; GIRLS CLUB OF AHA</li> <li>MACAV</li> <li>BEHAVIORAL HEALTH</li> <li>DEPARTMENT</li> </ul>	ENROLLMENT DEPARTMENT FOOD DISTRIBUTION MESQUITE CREEK HEALTH DEPARTMENT HUMAN RESOURCES ONE STOP (WIA)	About Us History			

Purpose Objective







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#### FORT MOJAVE INDIAN TRIBE AND AHA MACAV POWER SERVICES SOLAR PROJECT



### **AMPS Board of Directors**

- <u>7 Appointed Board Members</u>
- Wayne Nelson, Chairperson
- Amanda McCord, Vice-Chairperson
- Angela Medrano, Secretary
- Wes Davis, Treasurer
- Craig Castillo Sr.
- Leland McCord
- Gentry Medrano

About Us History



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#### FORT MOJAVE INDIAN TRIBE AND AHA MACAV POWER SERVICES SOLAR PROJECT



#### AHA MACAV POWER SERVICE



Reservation.

Provides natural gas for the Avi Resort and Casino and the Mojave Crossing Event Center.

Aha Macav Power Service (AMPS) was incorporated

under a Tribal Charter authorized in July 1991.

Provides electric power service to homes and

businesses located within the Fort Mojave Indian

AMPS has a staff which includes highly trained line workers who are on call 24/7.





#### AHA MACAV POWER SERVICE



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AMPS installs, operate and maintain transmission and distribution lines on the Fort Mojave Indian Reservation.

AMPS has all equipment needed for emergencies or routine work.

Aha Macav Power Service (AMPS) has two power substations and a switchyard which provides power backup feed to the City of Needles, CA.

AMPS upgraded to Advanced metering infrastructure (AMI) which is an integrated system of smart meters.

History





Power Purchase Agreement Expires 2020.

Preparing for Drought Conditions.



History

### Short 9+ MWh's from Western Area Power Administration.





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Project

Reduce dependence on outside power providers.

**Energy Self-Sufficiency.** 

Reduce energy costs as they will continue to escalate.

Provide clean, affordable power.

Location Project About Us History





Project verview About Us History



(24) Rows of panels 350 panels per row.

(5) Panels high with (16) 500,000 watt inverters.

The site is approximately

6 acres.



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FORT MOJAVE INDIAN TRIBE AND **AHA MACAV POWER SERVICES SOLAR PROJECT** 





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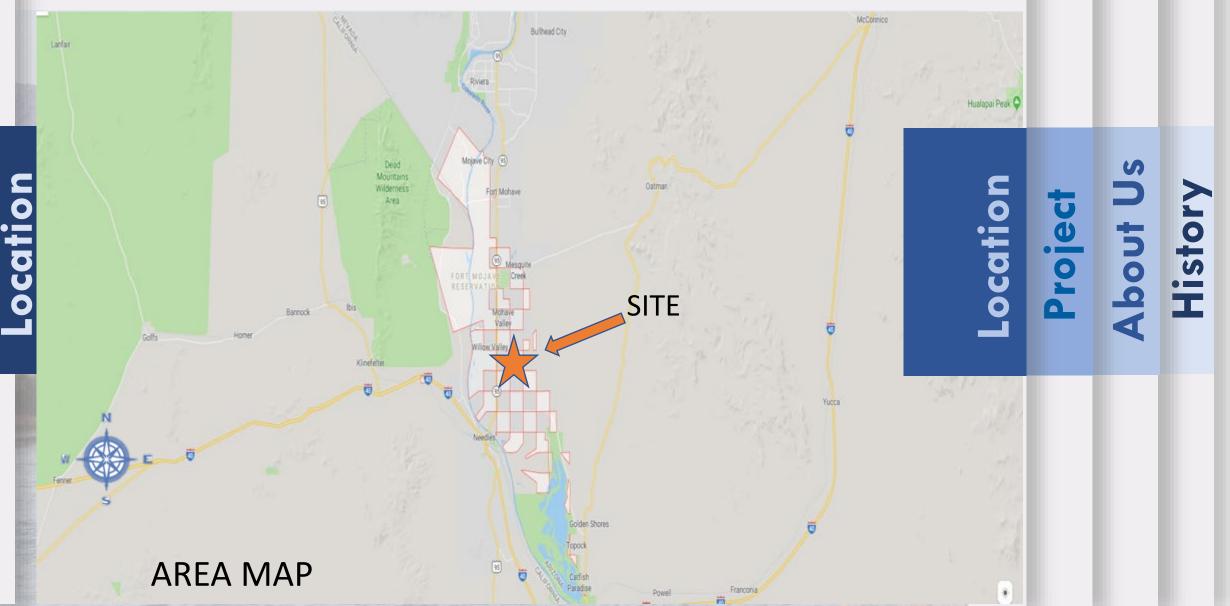
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Location

#### FORT MOJAVE INDIAN TRIBE AND AHA MACAV POWER SERVICES SOLAR PROJECT







**RESERVATION ROAD** 

482FT







#### No Name Substation

SITE MAP

#### **PHOTOVOLTAIC ARRAY**

6 Acre Site  $\bullet$ 

m

- 2.366 MW Solar Site  $\bullet$
- (5250) 400 watt panels  $\bullet$

# History About

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#### fparra@aham... End User

Dashboard No name substation

Site / No name substation

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ation		Modbusid	Device Type	Model	Status	SN	Name	Pac	E-today	Last Updated	Action
rd 	-		Gateway	FG4C	<ul> <li>Online</li> </ul>	4082013000642	Phase 1			2020-12-06 15:49:58 -0700	Delete
		1	Inverter	SCH125KTL-DO/US- 600	Running	0001014102029055	0001014102029055	17.1KW	561.7kWh	2020-12-06 15:50:21 -0700	Delete
		2	Inverter	SCH125KTL-DO/US- 600	Running	0001014102020035	0001014102020035	13.8KW	475.2kWh	2020-12-06 15:50:22 -0700	Delete
ensor		3	Inverter	SCH125KTL-DO/US- 600	Running	0001014102020006	0001014102020006	13.8KW	484.5kWh	2020-12-06 15:50:22 -0700	Delete
*		4	Inverter	SCH125KTL-DO/US- 600	Running	0001014102020010	0001014102020010	14.1KW	509.4kWh	2020-12-06 15:50:22 -0700	Delete
		5	Inverter	SCH125KTL-DO/US- 600	Running	0001014102020044	0001014102020044	14.1KW	495.5kWh	2020-12-06 15:50:22 -0700	Delete
		6	Inverter	SCH125KTL-DO/US- 600	Running	0001014102019147	0001014102019147	13.9KW	499.3kWh	2020-12-06 15:50:22 -0700	Delete
		7	Inverter	SCH125KTL-DO/US- 600	Running	0001014102019135	0001014102019135	14.0KW	504.1kWh	2020-12-06 15:50:22 -0700	Delete
		8	Inverter	SCH125KTL-DO/US- 600	Running	0001014102019047	0001014102019047	14.0KW	490.2kWh	2020-12-06 15:50:22 -0700	Delete
		9	Inverter	SCH125KTL-DO/US- 600	Running	0001014102020038	0001014102020038	14.6KW	516.0kWh	2020-12-06 15:50:22 -0700	Delete
		10	Inverter	SCH125KTL-DO/US- 600	Running	0001014102020018	0001014102020018	13.5KW	484.3kWh	2020-12-06 15:50:22 -0700	Delete
		11	Inverter	SCH125KTL-DO/US- 600	Running	0001014102020054	0001014102020054	14.0KW	495.1kWh	2020-12-06 15:50:23 -0700	Delete
		12	Inverter	SCH125KTL-DO/US- 600	Running	0001014102020070	0001014102020070	13.8KW	490.1kWh	2020-12-06 15:50:23 -0700	Delete
		13	Inverter	SCH125KTL-DO/US- 600	Running	0001014102020033	0001014102020033	13.6KW	481.4kWh	2020-12-06 15:50:23 -0700	Delete
		14	Inverter	SCH125KTL-DO/US- 600	Running	0001014102020014	0001014102020014	13.5KW	485.4kWh	2020-12-06 15:50:23 -0700	Delete
		15	Inverter	SCH125KTL-DO/US- 600	Running	0001014102019134	0001014102019134	13.2KW	481.0kWh	2020-12-06 15:50:23 -0700	Delete
		16	Inverter	SCH125KTL-DO/US- 600	Running	0001014102020061	0001014102020061	12.6KW	458.3kWh	2020-12-06 15:50:23 -0700	Delete

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### Provides 3.9 MW per year.

Inverters are not Wi-Fi as explained.



Main switch was difficult to acquire.



Solar cleaning kits.





Participants

Fort Mojave Tribal Council

**AMPS Board Of Directors** 

Aha Macav Power Service Staff

Stockbridge Energy Group

**Grant Management Associates** 

U.S. Department Of Energy Office of Indian Energy

# Pipa Aha Macav ~ The People by the River

# Thank You

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