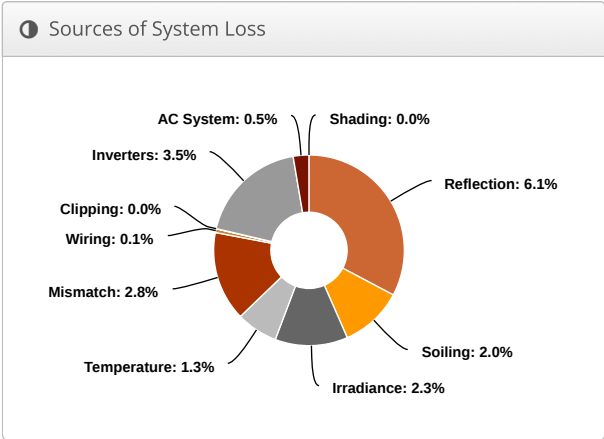
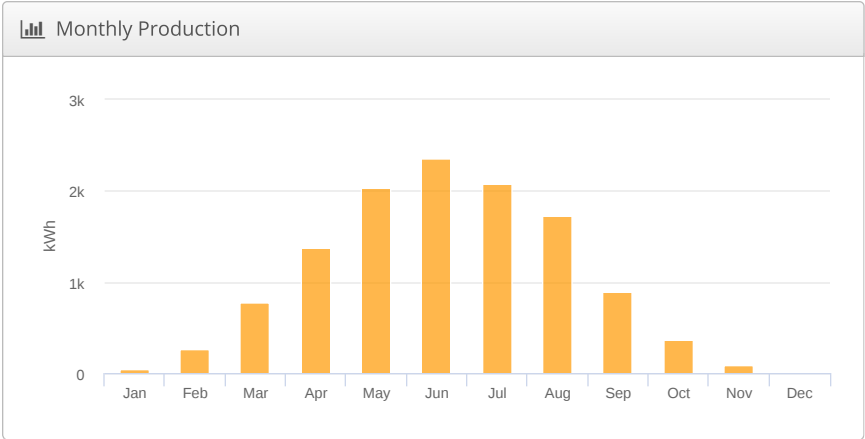
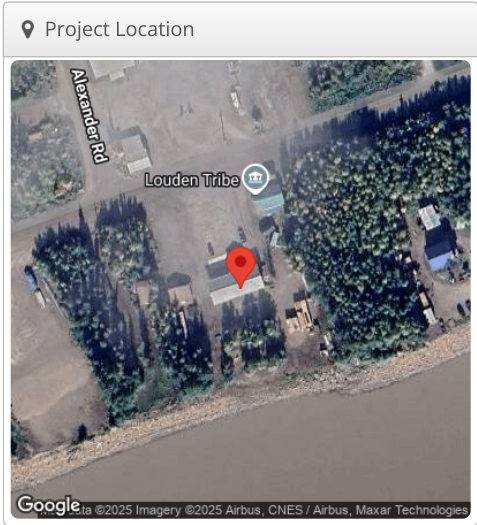


(32) SEG 550/Sol-Ark 15K/SimpliPhi 6.6 Louden Tribal Hall, Galena, AK

Report	
Project Name	Louden Tribal Hall
Project Description	Tribal Hall Roof Mount
Project Address	Galena, AK
Prepared By	Ed Dellamary edward.dellamary@tananachiefs.org

System Metrics	
Design	(32) SEG 550/Sol-Ark 15K/SimpliPhi 6.6
Module DC Nameplate	17.6 kW
Inverter AC Nameplate	15.0 kW Load Ratio: 1.17
Annual Production	11.99 MWh
Performance Ratio	82.6%
kWh/kWp	681.5
Weather Dataset	TMY, 10km Grid, Meteonorm 8 (meteonorm_v8)
Simulator Version	dceffc4e11-2a32c7b743-7e80f32647-d9525c8c20



⚡ Annual Production			
	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	825.7	
	POA Irradiance	824.8	-0.1%
	Shaded Irradiance	824.8	0.0%
	Irradiance after Reflection	774.2	-6.1%
	Irradiance after Soiling	758.7	-2.0%
	Total Collector Irradiance	758.7	0.0%
Energy (kWh)	Nameplate	13,354.6	
	Output at Irradiance Levels	13,045.7	-2.3%
	Output at Cell Temperature Derate	12,873.6	-1.3%
	Output After Mismatch	12,506.9	-2.8%
	Optimal DC Output	12,492.1	-0.1%
	Constrained DC Output	12,491.4	0.0%
	Inverter Output	12,054.2	-3.5%
	Energy to Grid	11,993.9	-0.5%
Temperature Metrics			
Avg. Operating Ambient Temp		4.9 °C	
Avg. Operating Cell Temp		14.1 °C	
Simulation Metrics			
Operating Hours			4471
Solved Hours			4471

☁ Condition Set												
Description	Condition Set 1											
Weather Dataset	TMY, 10km Grid, Meteororm 8 (meteororm_v8)											
Solar Angle Location	Meteo Lat/Lng											
Transposition Model	Perez Model											
Temperature Model	Sandia Model											
Temperature Model Parameters	Rack Type		a		b		Temperature Delta					
	Fixed Tilt		-3.56		-0.075		3°C					
	Flush Mount		-2.81		-0.0455		0°C					
	East-West		-3.56		-0.075		3°C					
	Carport		-3.56		-0.075		3°C					
Soiling (%)	J	F	M	A	M	J	J	A	S	O	N	D
	2	2	2	2	2	2	2	2	2	2	2	2
Irradiation Variance	5%											
Cell Temperature Spread	4° C											
Module Binning Range	-2.5% to 2.5%											
AC System Derate	0.50%											
Module Characterizations	Module				Uploaded By		Characterization					
	SEG-550-BMA-TB (SEG)				HelioScope		Spec Sheet Characterization, PAN					
Component Characterizations	Device						Uploaded By		Characterization			
	Limitless 15K-LV (240V) (Sol-Ark)						HelioScope		Spec Sheet			

📦 Components		
Component	Name	Count
Inverters	Limitless 15K-LV (240V) (Sol-Ark)	1 (15.0 kW)
Strings	10 AWG (Copper)	4 (160.5 ft)
Module	SEG, SEG-550-BMA-TB (550W)	32 (17.6 kW)

🔌 Wiring Zones			
Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	5-10	Along Racking

🏠 Field Segments									
Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Flush Mount	Portrait (Vertical)	0°	160°	0.0 ft	1x1	32	32	17.6 kW

