

Capacity Assessment Marina Office, Northney Marina, PO11 0NH

Report

Project Name	Marina Office
Project Address	Northney Marina, PO11 0NH
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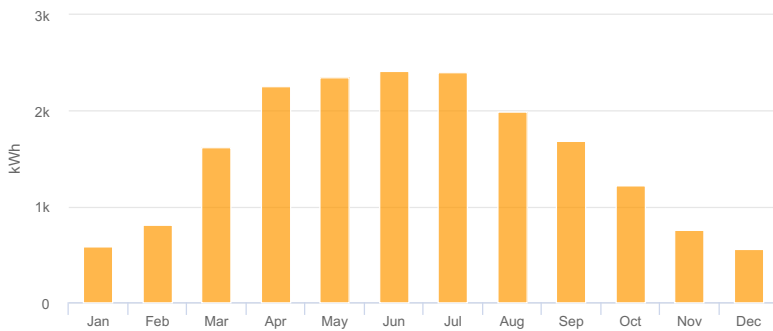
System Metrics

Design	Capacity Assessment
Module DC Nameplate	17.2 kW
Inverter AC Nameplate	17.0 kW Load Ratio: 1.01
Annual Production	18.65 MWh
Performance Ratio	84.5%
kWh/kWp	1,084.3
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	78af4eba73-9c25b53ac8-18fc2398aa-51e04960be

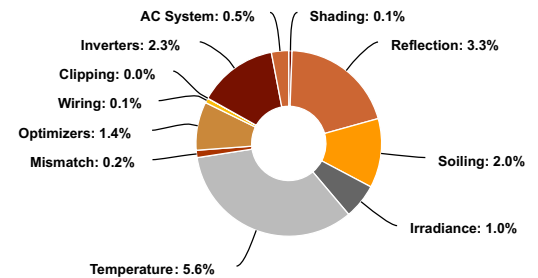
Project Location



Monthly Production



Sources of System Loss



Annual Production

	Description	Output	% Delta
Irradiance (kWh/m ²)	Annual Global Horizontal Irradiance	1,094.5	
	POA Irradiance	1,283.1	17.2%
	Shaded Irradiance	1,281.9	-0.1%
	Irradiance after Reflection	1,239.1	-3.3%
	Irradiance after Soiling	1,214.3	-2.0%
	Total Collector Irradiance	1,214.3	0.0%
Energy (kWh)	Nameplate	20,892.8	
	Output at Irradiance Levels	20,681.9	-1.0%
	Output at Cell Temperature Derate	19,526.0	-5.6%
	Output After Mismatch	19,485.1	-0.2%
	Optimizer Output	19,212.3	-1.4%
	Optimal DC Output	19,185.8	-0.1%
	Constrained DC Output	19,185.7	0.0%
	Inverter Output	18,744.5	-2.3%
	Energy to Grid	18,650.7	-0.5%
Temperature Metrics			
	Avg. Operating Ambient Temp		13.4 °C
	Avg. Operating Cell Temp		26.5 °C
Simulation Metrics			
	Operating Hours	4555	
	Solved Hours	4555	

Condition Set

Description	Condition Set 1											
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)											
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								
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								
	TSM-DE09.08 400 (Trina Solar)	Folsom Labs		Spec Sheet Characterization, PAN								
Component Characterizations	Device	Uploaded By		Characterization								

Components

Component	Name	Count
Inverters	SE17K-EU-APAC/AUS (SolarEdge)	1 (17.0 kW)
Strings	10 AWG (Copper)	2 (9.3 m)
Optimizers	P801 (SolarEdge)	22 (17.6 kW)
Module	Trina Solar, TSM-DE09.08 400 (400W)	43 (17.2 kW)

Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	11-28	Along Racking

Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Main Roof	Flush Mount	Landscape (Horizontal)	30°	195.49724°	0.0 m	1x1	31	31	12.4 kW
Side Roof	Flush Mount	Landscape (Horizontal)	30°	195.49724°	0.0 m	1x1	12	12	4.80 kW

