

Capacity Assessment

Chandlery Building, Hamble Point Marina, SO31 4NB

Report

Project Name	Chandlery Building
Project Address	Hamble Point Marina, SO31 4NB
Prepared By	Nick Spicer nick.spicer@yourecouk.com



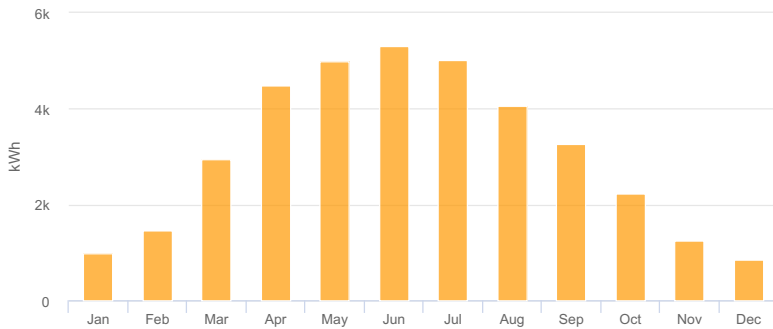
System Metrics

Design	Capacity Assessment
Module DC Nameplate	38.3 kW
Inverter AC Nameplate	33.3 kW Load Ratio: 1.15
Annual Production	36.89 MWh
Performance Ratio	83.5%
kWh/kWp	962.4
Weather Dataset	TMY, 10km Grid, meteonorm (meteonorm)
Simulator Version	0179bed5b5-bad80ec21e-0e5098992e-56bca1a4a9

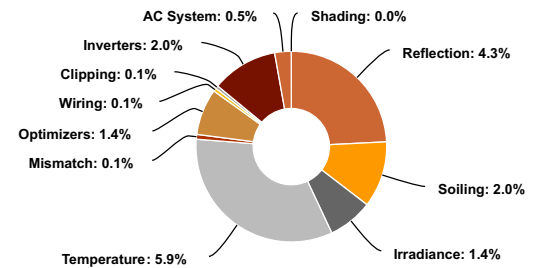
Project Location



Monthly Production



Sources of System Loss



Annual Production

	Description	Output	% Delta
Irradiance (kWh/m ²)	Annual Global Horizontal Irradiance	1,071.3	
	POA Irradiance	1,152.6	7.6%
	Shaded Irradiance	1,152.6	0.0%
	Irradiance after Reflection	1,102.9	-4.3%
	Irradiance after Soiling	1,080.8	-2.0%
	Total Collector Irradiance	1,080.8	0.0%
Energy (kWh)	Nameplate	41,477.5	
	Output at Irradiance Levels	40,914.8	-1.4%
	Output at Cell Temperature Derate	38,492.8	-5.9%
	Output After Mismatch	38,437.1	-0.1%
	Optimizer Output	37,899.0	-1.4%
	Optimal DC Output	37,860.8	-0.1%
	Constrained DC Output	37,827.6	-0.1%
	Inverter Output	37,071.0	-2.0%
	Energy to Grid	36,885.7	-0.5%
Temperature Metrics			
	Avg. Operating Ambient Temp		13.4 °C
	Avg. Operating Cell Temp		25.8 °C
Simulation Metrics			
	Operating Hours	4567	
	Solved Hours	4567	

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-DE14A(II) PERC MONO 365 (Trina Solar)						Folsom Labs		Spec Sheet Characterization, PAN				
Component Characterizations	Device			Uploaded By				Characterization					

Components

Component	Name	Count
Inverters	SE33.3K-EU-APAC (SolarEdge)	1 (33.3 kW)
Strings	10 AWG (Copper)	3 (61.5 m)
Optimizers	P800S (SolarEdge)	54 (43.2 kW)
Module	Trina Solar, TSM-DE14A(II) PERC MONO 365 (365W)	105 (38.3 kW)

Wiring Zones

Description	Combiner Poles	String Size	Stringing Strategy
Wiring Zone	-	13-41	Along Racking

Field Segments

Description	Racking	Orientation	Tilt	Azimuth	Intrarow Spacing	Frame Size	Frames	Modules	Power
Field Segment 1	Flush Mount	Portrait (Vertical)	10°	212.7277813943541°	0.0 m	1x1	105	105	38.3 kW

Detailed Layout

