

FINAL Report

AUGUST 25

Industrial Aerobotics



Major Defects Analysis

This report is a high-level summary of the major issues found across the Fantastic Solar Site that are not operating as designed. This report is not intended to be used for repair of detected anomalies but only to get a general understanding of the scale and general areas of major issues found. The official DC Health Tracker report will have all defects located, type of defect, and identifier of its location so repair can be planned.

Executive Summary

Analysis shows that just under 4.5% of the site is showing heating and a potential energy loss of 9MW compared to 4% and 8MW in 2020.

Blocks/Inverters:

There were no Blocks/Inverters that were offline during the scan.

Trackers:

There were no large, wide-spread sections that had tracker issues. Overall, there were 184 inoperative trackers compared to 163 Trackers in 2020.

Combiner/Strings:

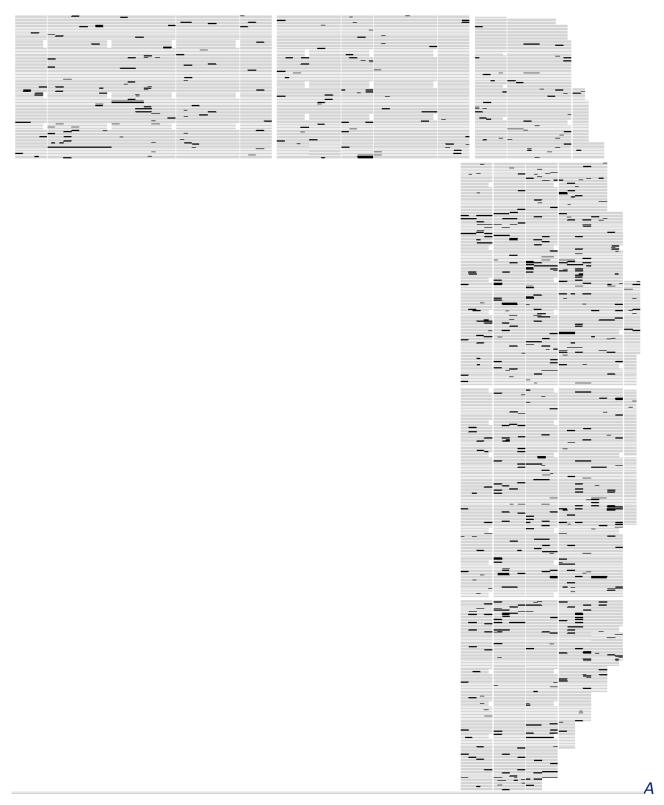
There is a very limited occurrence of complete Combiner outages and string outages are less than 1% on average per Inverter.

Hotspots:

As typical with CdTl Panels there were very few individual panels that were inoperative or containing "hotspots".

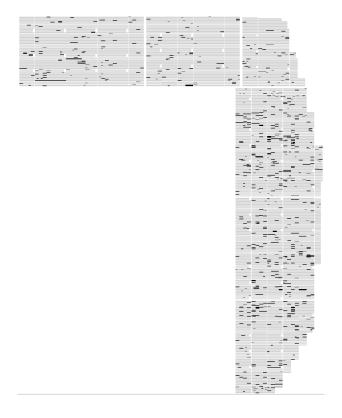
Year/Year Analysis:

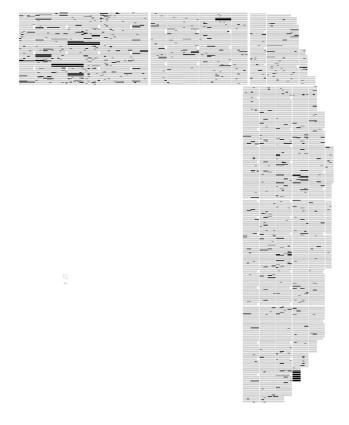
There were 716 Strings that were inoperative in the 2020 scan that were not repaired or have subsequently failed again compared to 814 in 2019/2020. There are also 32 Trackers that were not repaired or have subsequently failed again compared to 68 in 2019/2020.



Full ANSI-E Version of the PDF is included in the delivery

The DC Health Tracker XLS is provided in the delivery with exact location of each anomaly detected





DC Health Tracker Summary:

Summary Section of Clearway DC Health Tracker Spreadsheet

		Test Info	ormation			Environmental Conditions						Equipment				
est Team	Industrial	Aerobotic	s			POA Irradiance (W/m^2) > 600						Manufacturer/Model	FS-Series 4	dules per String	15	
Drone ID						Cloud Cover (okta) < 2						Inverter Type	pe 760 Site Nominal DC power (MW) 20			202
amera IC	mera ID Flir XT2-640 Fast						Ambient Temp (°C) < 40						120	String Nom	inal Power (W)	1800
						Wind Speed (m/s) < 7.78										
INDINGS																
Method	Total Weight Inverters Combiner					Individual String	s				Modules	Module Substrings	Trackers	Hot Spots <u>Total</u>		Recovered
Visual	0	0.0%	DEFECTS	0	0						0	0	184	0	4.483%	0.000%
Drone	5032	100.0%	Power Loss	0	0	8726400					0	0	331200	0	9,057,600	0
Analytics	0	0.0%	Repaired	0	0	0					0	0	0	0		
			Recovered	0	0	0					0	0	0	0		
	Location of Issue						2019 STRING A	2010 TRACKER	2020 CTRING A	2020 TRACKER					Nominal Power	Naminal Bou
Date	Method	В	RESERVE	СВ	S/M	Affected Area	NOM	ANOM	NOM	ANOM	Number (of defects)	Priority Level	Defect	Date Repaired		Recovered (
Date -	WELLIOU	-	NESERVE -	-	3/WI -	Allected Alea	TVOW	ANOW	- IVOIVI	ANON	- vulliber (of defects)	- Filolity Level	Delett	Date Repaired	LUSS (W)	Necovereu (
7/26/2021	D	1.1		C-1	121	STRING	FALSE	FALSE	FALSE	FALSE	1	B - Medium-Level Power Loss			1800	0
7/26/2021	D	1.1		C-1		STRING	FALSE	FALSE	FALSE	FALSE	1	B - Medium-Level Power Loss		1800	0	
7/26/2021	D	1.1		C-1	123	STRING	FALSE	FALSE	FALSE	FALSE	1	3 - Medium-Level Power Loss		1800	0	
7/26/2021	n	1.1		C-1		STRING	FALSE	FALSE	FALSE	FALSE	1	8 - Medium-Level Power Loss			1800	0
		1.1		C-1		STRING	FALSE	FALSE	FALSE	FALSE	1	B - Medium-Level Power Loss			1800	0
7/26/2021	D	_			125		FALSE				1					0
7/26/2021 7/26/2021	D D	1.1		C-1	125 126	STRING	FALSE	FALSE	FALSE	FALSE	1	3 - Medium-Level Power Loss			1800	_
7/26/2021 7/26/2021 7/26/2021 7/26/2021	D D	1.1 1.1		C-1 C-1	125 126 127	STRING STRING	FALSE FALSE	FALSE FALSE	FALSE FALSE	FALSE FALSE	1	3 - Medium-Level Power Loss 3 - Medium-Level Power Loss			1800 1800	0
7/26/2021 7/26/2021 7/26/2021 7/26/2021	D D D	1.1 1.1 1.1 1.1		C-1 C-1 C-1 C-1	125 126 127 128	STRING STRING STRING STRING	FALSE FALSE FALSE FALSE	FALSE FALSE FALSE	FALSE FALSE FALSE	FALSE FALSE FALSE	1	3 - Medium-Level Power Loss 3 - Medium-Level Power Loss 3 - Medium-Level Power Loss			1800 1800 1800	0
7/26/2021 7/26/2021 7/26/2021	D D D D	1.1 1.1 1.1 1.1 1.1		C-1 C-1 C-1 C-1 C-1	125 126 127 128 17	STRING STRING STRING STRING STRING	FALSE FALSE FALSE FALSE FALSE	FALSE FALSE FALSE FALSE FALSE	FALSE FALSE FALSE FALSE	FALSE FALSE FALSE FALSE FALSE	1 1 1 1 1	3 - Medium-Level Power Loss 3 - Medium-Level Power Loss 3 - Medium-Level Power Loss 3 - Medium-Level Power Loss			1800 1800 1800 1800	0 0
/26/2021 /26/2021 /26/2021 /26/2021 /26/2021	D D D D D	1.1 1.1 1.1 1.1		C-1 C-1 C-1 C-1	125 126 127 128 17	STRING STRING STRING STRING	FALSE FALSE FALSE FALSE	FALSE FALSE FALSE FALSE	FALSE FALSE FALSE FALSE FALSE	FALSE FALSE FALSE FALSE	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	B - Medium-Level Power Loss B - Medium-Level Power Loss B - Medium-Level Power Loss B - Medium-Level Power Loss C - Medium-Level Power Loss Medium-Level Power Loss			1800 1800 1800 1800 1800	0 0 0

Calculations should be verified as our copy of the Tracker Spreadsheet may not be the most current

Sample Image of Issue Area:

All Images are available and will be provided upon request

TRACKERS-STRINGS-TABLES

