ATTACHMENT #1

PARTNER
Engineering and Science, Inc.

More Than Just Assessments.
Solutions.

SITE INSPECTION REPORT

Indian Wells Villas

74-800 Village Center Drive
Indian Wells, CA 92210

Report Date

May 14, 2024.

Partner Project No.

24-441517

Prepared for:

Abode Communities
1149 S. Hill St. Suite 700
Los Angeles California 90015

PARTNER

May 14, 2024

Mark Wermers
Abode Communities
1149 S. Hill St. Suite 700
Los Angeles CA 90015

Subject: Site Inspection Report

Indian Wells Villas
74-800 Village Center Drive
Indian Wells CA 92210
Partner Project No. 24-441517

Dear Mr. Wermers,

Partner Engineering and Science, Inc., (Partner) is pleased to provide you with the requested Completion Inspection Report. The main purpose of this report is to summarize the observations from the project site, comment on the work completed as it compares to the project's designs, note any obvious issues onsite, and make any applicable recommendations.

This assessment was performed utilizing methods and procedures consistent with good commercial or customary practices designed to conform to acceptable industry standards. The independent conclusions represent Partner's best professional judgement based upon existing conditions and the information and data available to us during the course of this assignment.

The investigation was conducted on behalf of and for the exclusive use of Abode Communities ("Client"). This report and findings contained herein will not, in whole or in part, be disseminated or conveyed to any other party, nor used by any other party, in whole or in part, without prior written consent of Partner.

We appreciate the opportunity to provide these services. If you have any questions or we can assist you in any other matter, please feel free to contact me at 201-937-8617.

Sincerely,

Sincerely,

Pezhman Rahimi B.Sc. Eng, MBA
NABCEP PV Professional and Inspector

TABLE OF CONTENTS

1.0 EXECUTIVE SUMMARY

1.1 Scope of This Report

Partner was retained to summarize the observations from the project site, comment on the work completed as it compares to the project's designs, note any Punchlist items, and make any applicable recommendations on behalf of abode Communities, pursuant to the construction of the Indian Wells Solar Project located in 74-800 Village Center Drive, Indian Wells CA 92210. This report should not be construed as a tacit approval of the documents, or an acceptance of responsibility for the design.

1.2 Assumptions

It is assumed that the documents provided for review represent the most updated and current set available for the development of the project. Module wattage was observed to be 230W on modules that were not painted.

1.3 Project Description

Solar Project Data	
Project Name	***Indian Wells Villas (15 buildings & PV Corridor)***
DC Capacity:	(Estimated) 238.5 kW_{DC}
AC Capacity:	264 kW_{AC}
Location:	74-800 Village Center Drive Indian Wells, CA 92210
Module:	(1,037) SUNPOWER SPR-230-WHT-U
Inverter:	(37) SUNPOWER Solar Inverter SPR-7000m (1) SUNPOWER Solar Inverter SPR-5000m
Inspected By	Judy Assafiri and Pezhman Rahimi
Date of Observation	May 8, 2024

2.0 SITE OBSERVATIONS

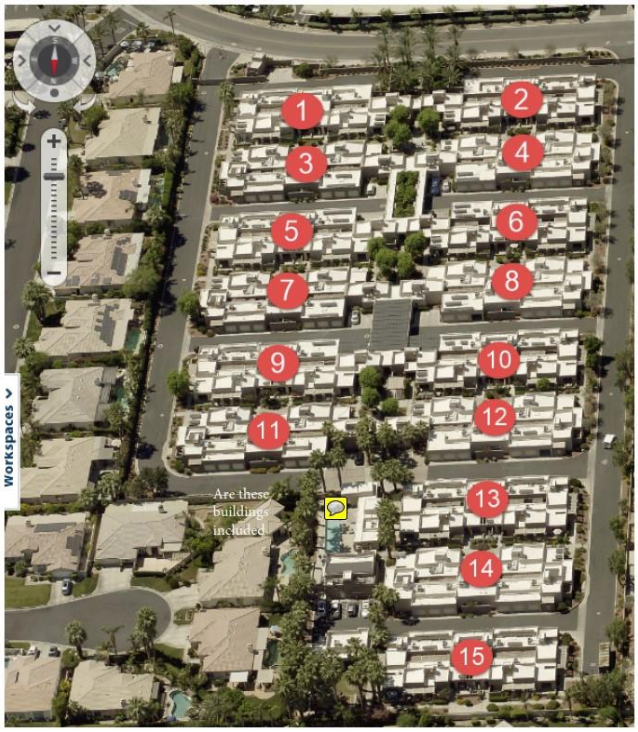
2.1 Site Visit Observations

2.1.1 General Observations

The site consists of 15 facilities and one PV corridor. Access to one roof was provided to Partner team and drone inspection has been conducted on all roofs. Below are findings based on Partner drone and on-roof inspections.

Partner was not provided with any electrical drawings, PV plans, power purchase agreement, interconnection agreement operation and maintenance reports.

Partner used the numbering provided by the client, as shown below for preparation of this report:



2.1.2 Racking Installation

a) Racking system is a fixed-tilt roof mount securely anchored to the roof.
b) No issues or red flag observed on the racking system.
c) Modules maintained appropriate clearance for typical roof mounts.
d) System grounding was observed to be disconnected in some locations.
e) Racking connections were not torque marked.

2.1.3 Module Installation

a) The installed modules are (1,037) of SUNPOWER SPR-230-WHT-U

Partner was able to find the specifications of installed modules online:

SUNPOWER

BENEFITS

Highest Efficiency
Panel efficiency of 18.5% is higher than any commercially available panel of similar size

More Power
Delivers up to 50% more power per unit area than conventional solar panels and 100% more than thin film solar panels

Reduces Installation Cost
More power per panel means fewer panels per install. This saves both time and money.

Reliable and Robust Design
Proven materials, tempered front glass, and a sturdy anodized frame allow panel to operate reliably in multiple mounting configurations

SPR-230-WHT

230 SOLAR PANEL

EXCEPTIONAL EFFICIENCY AND PERFORMANCE

The SunPower 230 Solar Panel provides today's highest efficiency and performance. Utilizing 72 next generation SunPower all-back contact solar cells and an optimized panel design, the SunPower 230 delivers an unprecedented total panel conversion efficiency of 18.5%. The 230 panel's reduced voltage-temperature coefficient and exceptional low-light performance attributes provide far higher energy delivery per peak power than conventional panels.

SunPower's High Efficiency Advantage - Up to Twice the Power

Comparable systems covering 1000 m² / 10,750 ft²			
	Thin Film	Conventional	SunPower
Watts / Panel	65	165	230
Efficiency	9.0%	12.0%	18.5%
kWs	**90**	**120**	**185**

SUNPOWER

230 SOLAR PANEL

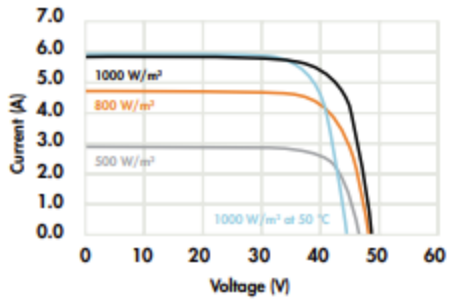
EXCEPTIONAL EFFICIENCY AND PERFORMANCE

Electrical Data

Measured at Standard Test Conditions (STC): irradiance of 1000/m², air mass 1.5 g, and cell temperature 25° C

Peak Power (+/-5%)	Pmax	230 W
Rated Voltage	Vmp	41.0 V
Rated Current	Imp	5.61 A
Open Circuit Voltage	Voc	48.7 V
Short Circuit Current	Isc	5.99 A
Maximum System Voltage	IEC, UL	1000 V, 600 V
Temperature Coefficients		
	Power	–0.38% /°C
	Voltage (Voc)	–132.5 mV/°C
	Current (Isc)	3.5 mA/°C
Series Fuse Rating		20 A
Peak Power per Unit Area		185 W/m², 17.2 W/ft²
CEC PTC Rating		213.5 W

IV Curve



Current/voltage characteristics with dependence on irradiance and module temperature.

Mechanical Data

Solar Cells	72 SunPower all-back contact monocrystalline
Front Glass	3.2mm (1/8 in) tempered
Junction Box	IP-65 rated with 3 bypass diodes
Output Cables	900 mm length / Multi-Contact connectors
Frame	Anodized aluminum alloy type 6063
Weight	15 kg, 33 lbs

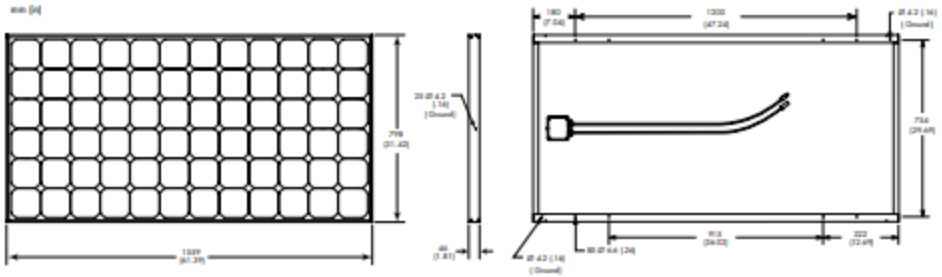
Tested Operating Conditions

Temperature	–40° C to +85° C (–40° F to +185° F)
Max load	50 psf (2400 Pascals) front and back
Impact Resistance	Hail – 25mm (1 in) at 23 m/s (52 mph)

Warranty and Certifications

Warranty	25 year limited power warranty
	10 year limited product warranty
Certifications	IEC 61215 , Safety tested IEC 61730; UL listed (UL 1703), Class C Fire Rating

Dimensions



CAUTION: READ SAFETY AND INSTALLATION INSTRUCTIONS BEFORE USING THE PRODUCT. Go to www.sunpowercorp.com/panels for details

About SunPower

SunPower designs, manufactures and delivers high-performance solar electric technology worldwide. Our high-efficiency solar cells generate up to 50 percent more power than conventional solar cells. Our high-performance solar panels, roof tiles and trackers deliver significantly more energy than competing systems.

Document #001-62189 Rev*A

Printed on recycled paper

www.sunpowercorp.com

According to the specifications, the modules have a 25-year limited power warranty and 10-year limited product warranty.

b) Soiling was observed on the modules. Additionally, bird droppings were observed on certain solar modules which raises concerns as their acidic nature can impact the lifespan and performance of photovoltaic cells.
c) DC wiring was completed; however, it was all painted and no labels were showing. Additionally, some DC wires were touching the roof surface. This issue can be addressed by operation and maintenance team.

2.1.4 Inverter Wiring

a) DC wiring to the inverters run through a PVC conduit down to the wall-mounted splitter/pull box, and from there to the inverters.
b) PV labeling was observed.

2.1.5 AC Wiring and Equipment

a) The AC conductors run from inverter AC fuse box to the AC disconnect and panelboard located at the metering cabinets. Partner was unable to verify the wire sizing.
b) Two different types of point of interconnection were observed during the site inspection. Some systems included a 400-amp AC switchboard with a standalone generation meter, while others had meters integrated into the main metering cabinet with a 125-amp breaker.
c) Energy monitoring system was installed for each roof separately. However, Partner was only able to read the total generation on the monitoring portal.

2.1.6 Deficiencies

a) Soiling observed on solar modules.
b) Connections were missing torque marks.
c) Grounding wire was observed to be loose and not connected.
d) DC wires and module labels were painted.
e) PV wires need to be properly managed off the roof.

2.1.7 Performance review

a) Monitoring site is active and able to provide total site production data.
b) Inverters on site appeared to be online.
c) Partner modeled a typical roof configuration comprising 56 modules and no shading to estimate specific production of a theoretical system in the same area and with the same equipment, azimuth, and orientation. Partner then conducted an analysis which shows that the total system production falls below the expected output range for a system of this size, age, and accounting for soiling losses.

Typical Building with 56 Modules Indian Wells Villas Typical Roof, 74-800 Village Center Drive Indian Wells, CA 92210

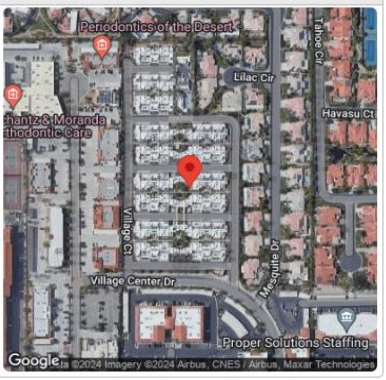
Report

Project Name	Indian Wells Villas Typical Roof
Project Address	74-800 Village Center Drive Indian Wells, CA 92210
Prepared By	Pezhman Rahimi prahimi@partneresi.com

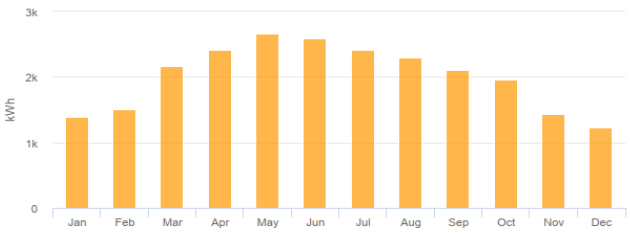
System Metrics

Design	Typical Building with 56 Modules
Module DC Nameplate	12.9 kW
Inverter AC Nameplate	12.0 kW Load Ratio: 1.07
Annual Production	24.16 MWh
Performance Ratio	81.8%
kWh/kWp	1,875.5
Weather Dataset	TMY, 10km grid (33.75,-116.35), NREL (prospector)
Simulator Version	8bf5d16c4c-3987ccdd1a-3fcd90ee4d-f7c132eeac

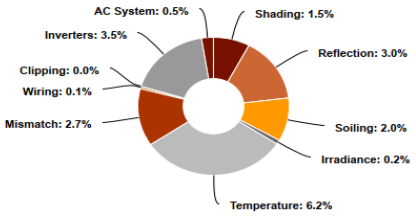
Project Location



Monthly Production



Sources of System Loss



Annual Production

	Description	Output	% Delta
Irradiance (kWh/m²)	Annual Global Horizontal Irradiance	2,127.3	
	POA Irradiance	2,292.9	7.8%
	Shaded Irradiance	2,257.7	-1.5%
	Irradiance after Reflection	2,189.6	-3.0%
	Irradiance after Soiling	2,145.8	-2.0%
	Total Collector Irradiance	**2,145.8**	**0.0%**
Energy (kWh)	Nameplate	27,637.4	
	Output at Irradiance Levels	27,583.3	-0.2%
	Output at Cell Temperature Derate	25,874.0	-6.2%
	Output After Mismatch	25,186.9	-2.7%
	Optimal DC Output	25,158.0	-0.1%
	Constrained DC Output	25,157.9	0.0%
	Inverter Output	24,277.3	-3.5%
	Energy to Grid	**24,156.0**	**-0.5%**
Temperature Metrics			
	Avg. Operating Ambient Temp		20.6 °C
	Avg. Operating Cell Temp		32.5 °C
Simulation Metrics			
	Operating Hours		4700
	Solved Hours		4700

Condition Set

Description	Condition Set 1												
Weather Dataset	TMY, 10km grid (33.75,-116.35), NREL (prospector)												
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%												
Trackers	Maximum Angle			Backtracking									
	60°			Enabled									
Module Characterizations	Module		Uploaded By	Characterization									
	SPR-230-WHT-U (SunPower)		HelioScope	Spec Sheet Characterization, PAN									
Component Characterizations	Device			Uploaded By	Characterization								
	Sunny Boy 7000TL-US (208v) (SMA)			HelioScope	Spec Sheet								

Specific production of system based on modeling software = **1875 kWh ac / kW dc / Year** for a new built system.

Considering typical module degradation of 0.5% per year and assuming the system has been installed 10 years ago, the desired specific production should be around 1875 x (1-0.5%) ^10 = **1792 kWh ac / kW dc / Year**

(Specific production is the annual system energy generation for each kWdc of power)

Also, per the monitoring system readings, average of four months of energy production shall be calculated as below:

Reading from the monitoring system:

January	16000	kWh AC
February	18000	kWh AC
March	24,500	kWh AC
April	30,000	kWh AC

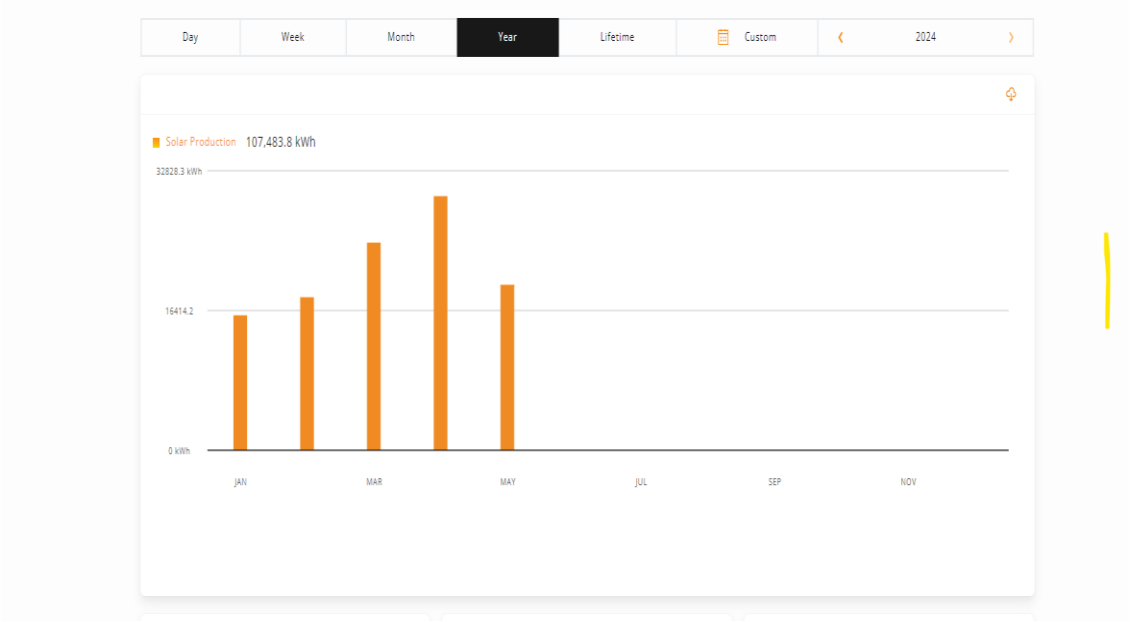
Average of 4-month production = **22125 kWh ac**

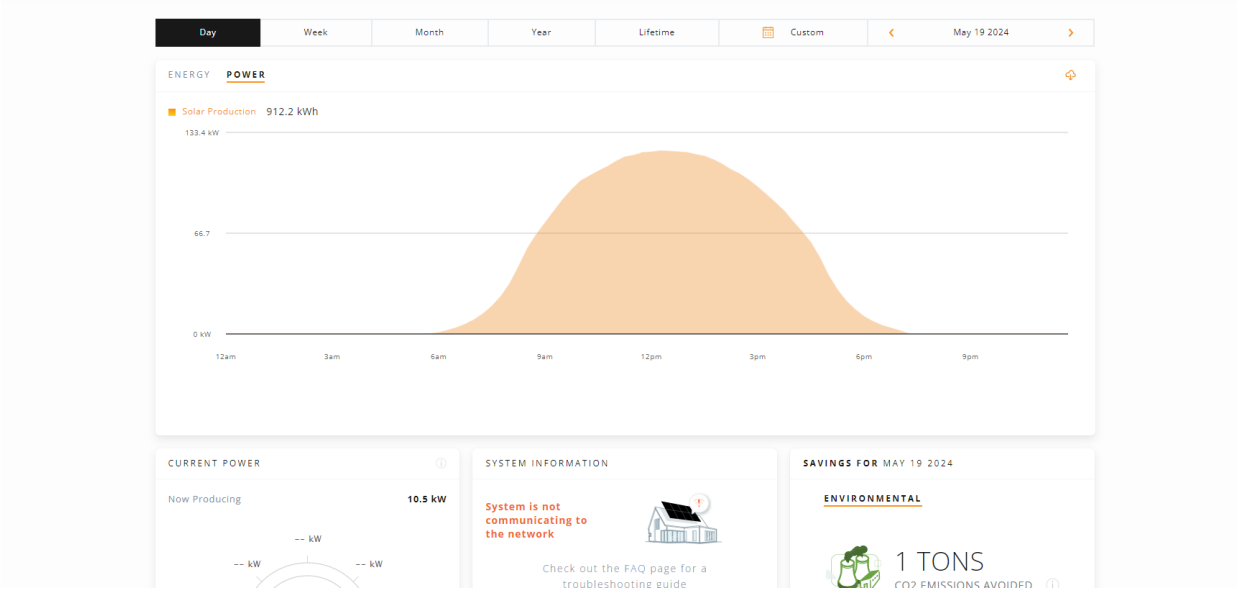
Therefor estimated annual generation = 22125 x 12 = **265,500 kWh ac**

Also based on site inspection and modules specifications the DC capacity is equal to 238.5 kW dc

Therefor the Actual Specific Production will be equal to 265,500 / 238.5 = **1113.2 kWh ac / kW dc / Year.**

Based on above calculations, the performance of the system is estimated to be at **1113.2/1792 = 62%.**





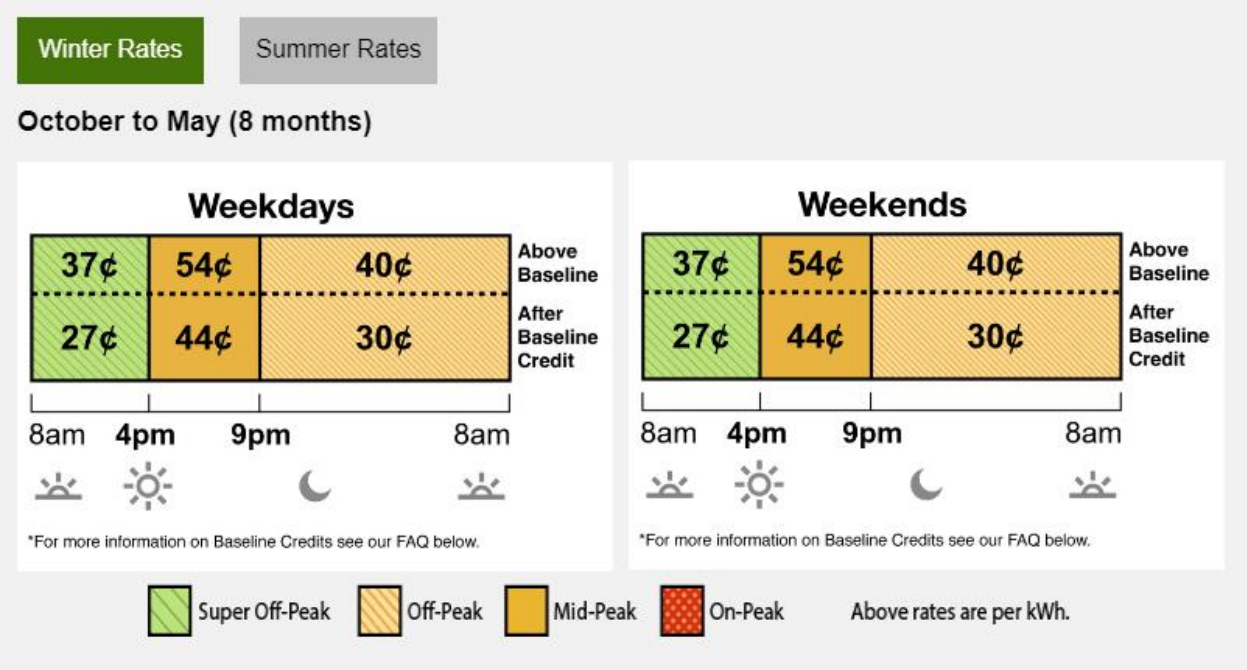
2.1.8 System update

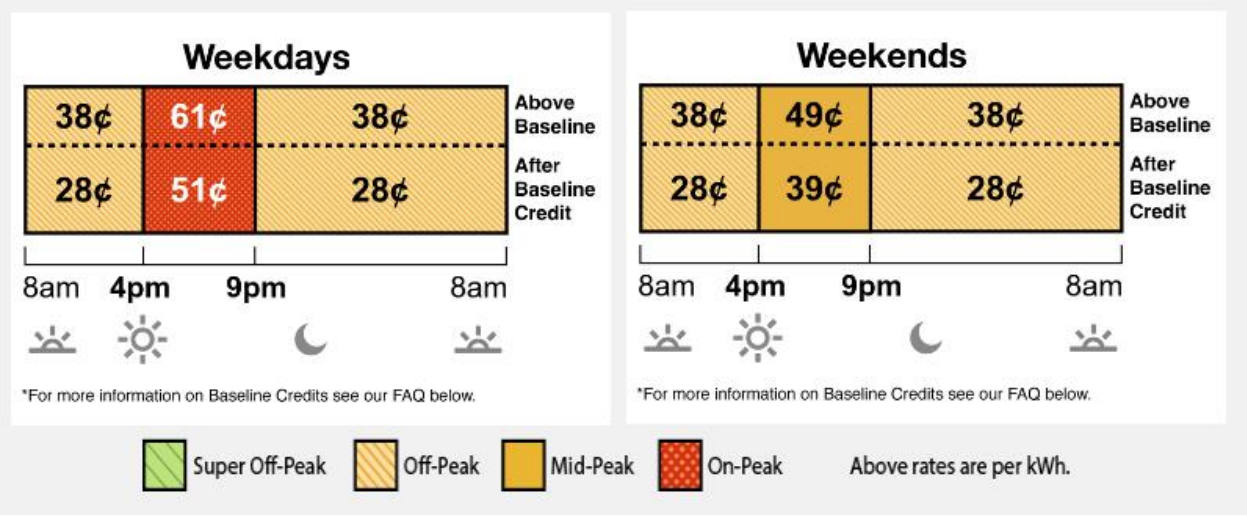
Considering an estimated performance of 62%, a system upgrade could potentially increase production by up to 35% depending on the extent of the upgrade implemented. Below are different possible scenarios for upgrading the system:

Replacement Scenario	Module Replacement	Inverter Replacement	Estimated Fee ($/Wdc)	Estimated Fee ($)	Estimated Production after Upgrade kWh AC / Year
Scenario 1	Just modules with hot spot	✓	0.60	0.6 x 238.5(kWdc) = $143 K	~1790 x 238.5 = 426,915
Scenario 2	✓ Upgraded 370W modules	✓	3.50	3.5 x 238.5(kWdc) = $834.75 M	~1800 x 1037 x 0.370 = 690,642

Based on estimated SCE utility rates from their website:

https://www.sce.com/residential/rates/Time-Of-Use-Residential-Rate-Plans





Replacement Scenario	Estimated Average Utility Rate:	Annual Production	Annual Target Revenue	Current Estimated Revenue	Breakeven Year (Target Revenue – Current Revenue) / Cost of Upgrade
Scenario 1	32.5 C / kWh ac	426,915	$138,747.38	=62% x 138,747.38 = $86,023.37	~ 143,000 / (138,747 - 86,023.37) = 3 Years
Scenario 2	32.5 C / kWh ac	690,642	$224,458.65		~ 835,000 / (224,458 - 86,023.37) = 6 Years

Scenario 1 analysis replaces the inverters and modules with hot spots, cleaning of existing modules to generate an increase in production with an approximate 3 year payback to break even with cost of upgrade.

Scenario 2 analysis replaces the inverters and modules with upgraded higher wattage to generate an increase in production with an approximate 6 year payback to break even with the cost of upgrade.

Based on above analysis, Partner suggests considering scenario 1.

Notes:

d) Replacing the inverters with similar or equivalent models from the same manufacturer is necessary, as the inverters are assumed to have reached the end of its useful life.
However, upgrading to higher wattage inverters or modules would trigger the interconnection to be resubmitted and also require the system to be brought up to current codes. This could lead to increased costs associated with the system upgrade.

e) Partner discussions with Scott Perez of Renova Energy has been very helpful and informative. We understand they were not the installing contractor but have been contracted to perform maintenance on the Indian Wells Villas PV system as needed. Renova was able to provide the information we needed to be able to view the PV system monitoring. They also provided information concerning maintenance or upgrade policies to PV systems in the Southern California Edison utility region. Renova Energy seems to be familiar with the Indian Wells facility and knowledgeable of photo voltaic work and procedures for revitalizing older systems.

f) Replacing solar modules with similar physical size but higher efficiency (wattage) while attempting to utilize existing racking may lead to a higher DC to AC ratio which can result in increased overall annual generation.

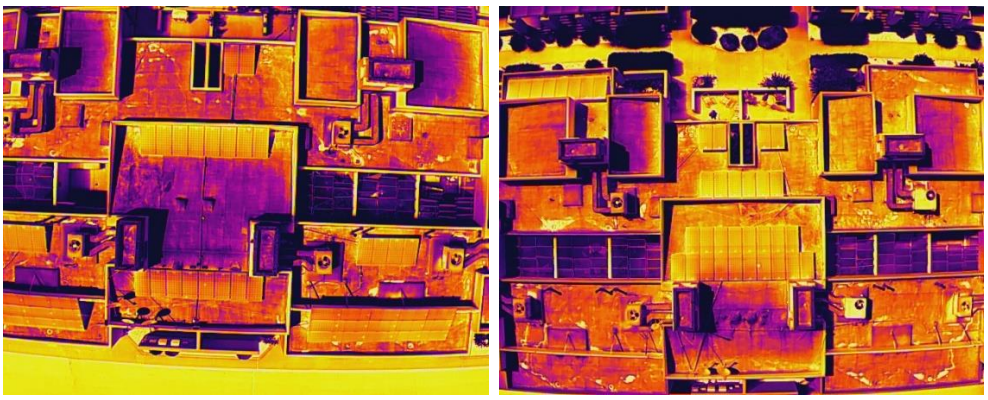
g) Replacing the Inverters would likely provide an upgraded PV system monitoring, which would provide more comprehensive information including inverter level data.

h) Partner engaged in a discussion with Sharon (Last name undisclosed) of SCE at 1:40 PM on May 28, 2024. As per our dialogue with SCE, it was clarified that the replacement of inverters or solar modules does not constitute a system upgrade and therefore does not necessitate approval from the utility, provided that the AC system size remains unchanged.

Infrared PV Module Scan:

Partner conducted a complete site drone videography, imagery, and infrared inspection to locate malfunctioning solar modules with hotspots. Hotspots were detected on some of the solar modules.

The total number of modules with hot spots is estimated to be 25 which is about 2.41% of the modules.

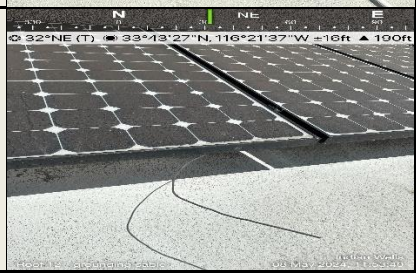


All the footage taken by Partner can be found here: Drone Footage

2.2 Deficiencies

Partner notes that the following items should be completed or resolved:

No.	Observation	Photo
1	Soiling observed on the modules.	
2	Connections missing torque marks.	

No.	Observation	Photo
3.	DC wires and module labels were painted.	
4.	Grounding cable was loose and not attached.	

PARTNER

3.0 CLOSING

We appreciate the opportunity to provide solar services for this project. If you have any questions concerning this report, or if we can assist you in any other matter, contact Pezhman Rahimi at 949-945-3690.

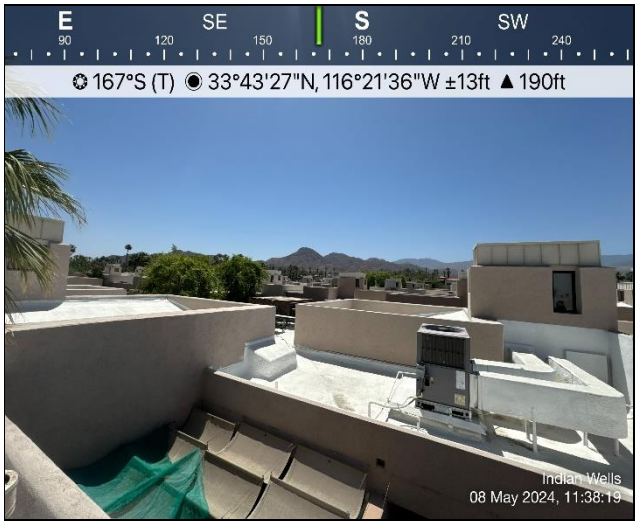
Sincerely,

Pezhman Rahimi B.Sc. Eng, MBA
NABCEP PV Professional and Inspector

EXHIBIT A

Photolog

PARTNER



1. General View

2. Solar Modules

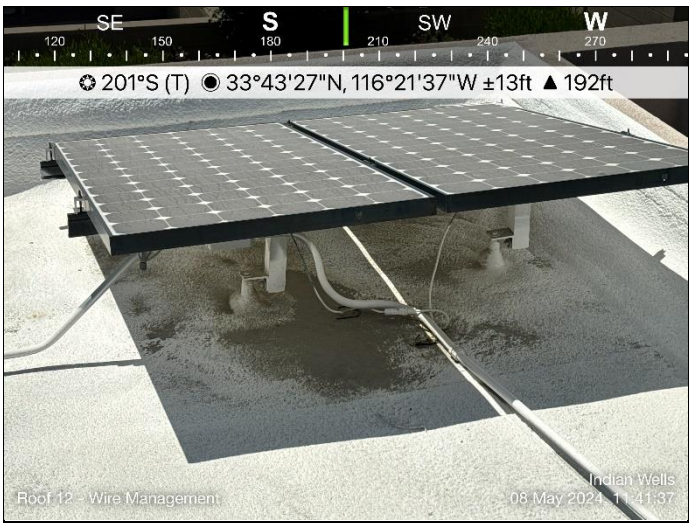
3. Soiling

4. Connections are not torque marked

5. Racking

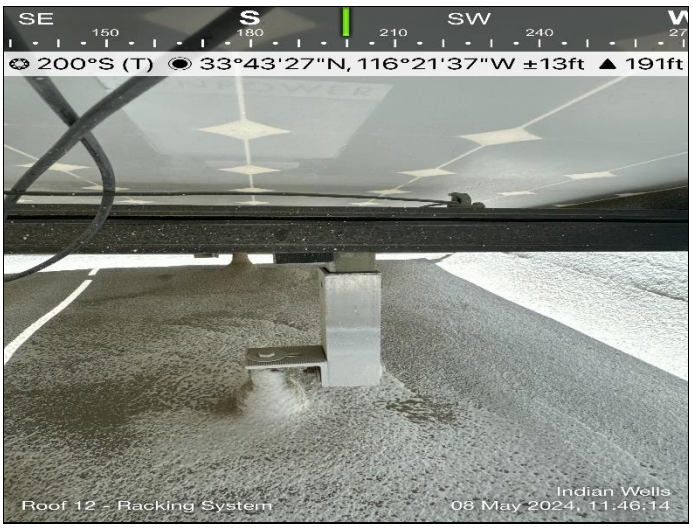
6. Racking

7. DC wires



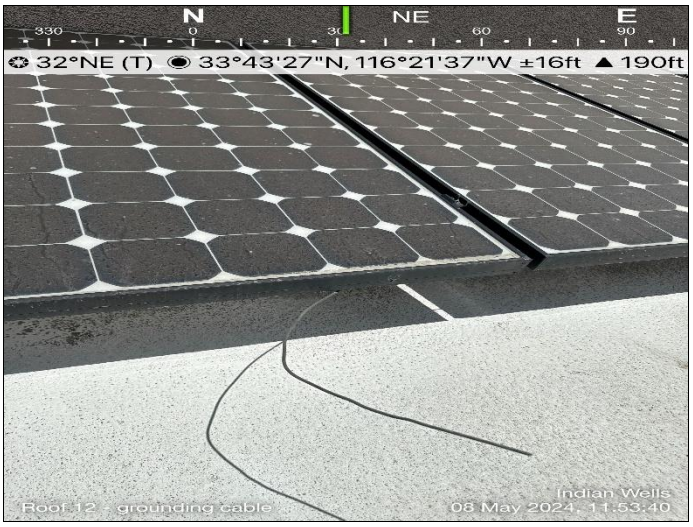
8. Wire management

9. Grounding



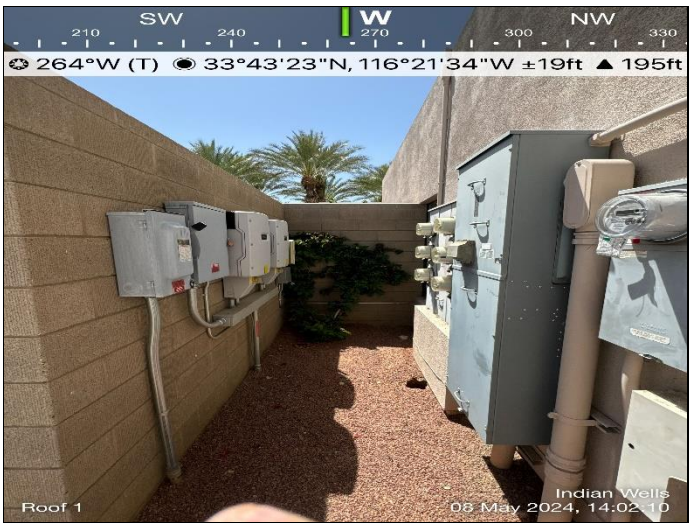
10. Painted label

11. Wires

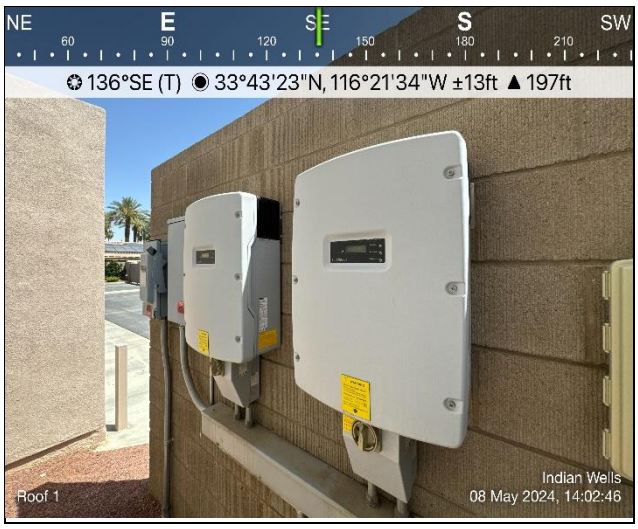


12. Loose grounding cable

13. Homerun wires

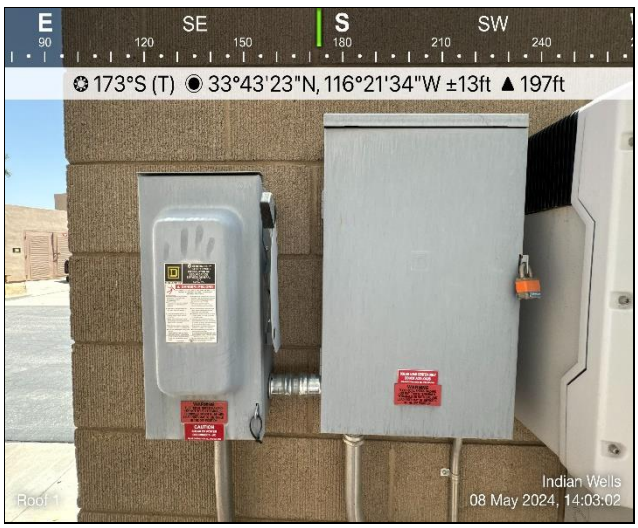


14. Roof 1 electrical corridor



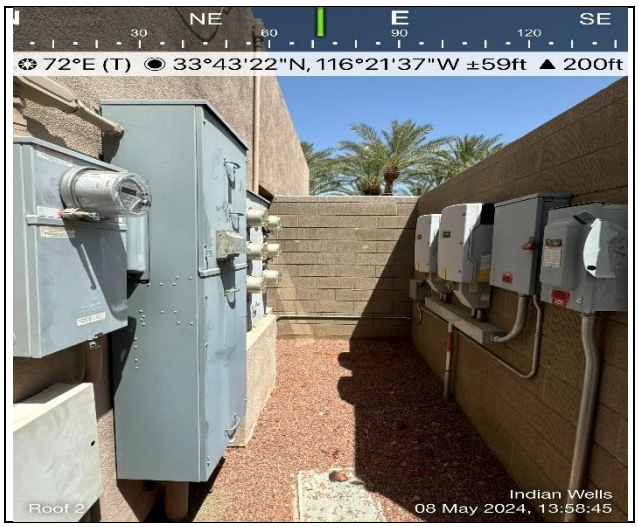
15. roof 1 inverters

16. Roof 1 inverters label 7000W

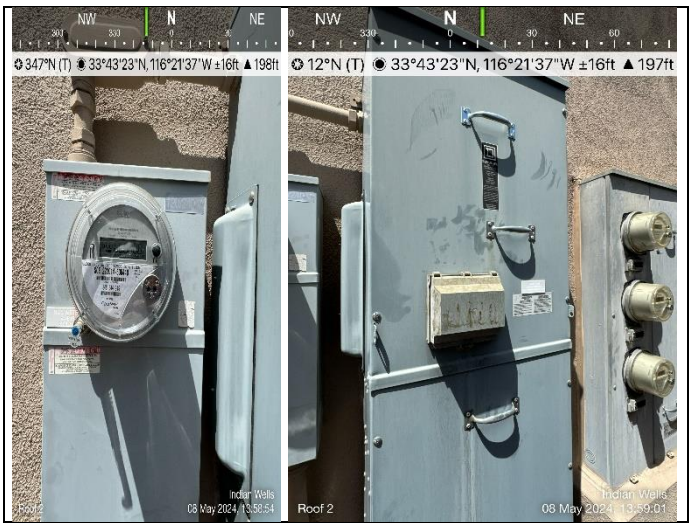


17. Roof 1 AC disconnect

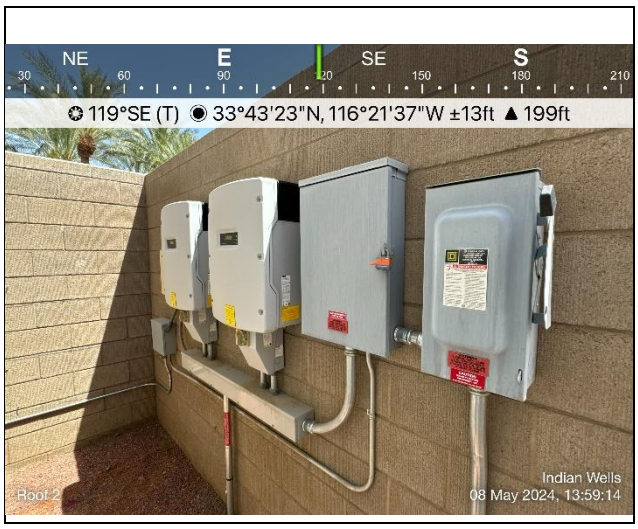
18. Roof 1 standalone meter



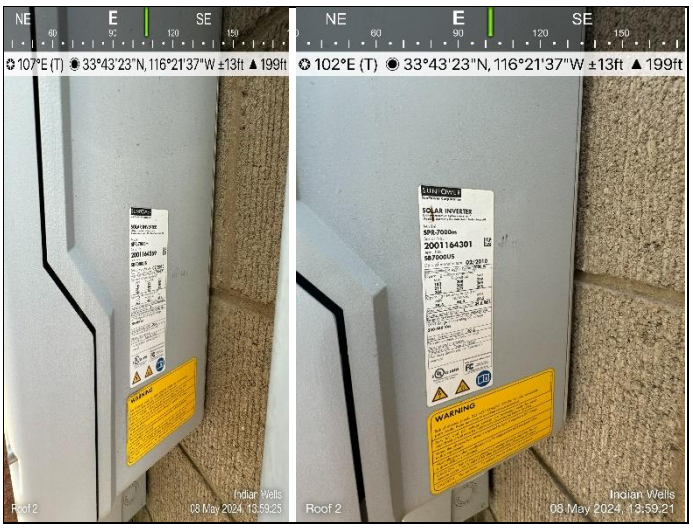
19. Roof 2 electrical corridor



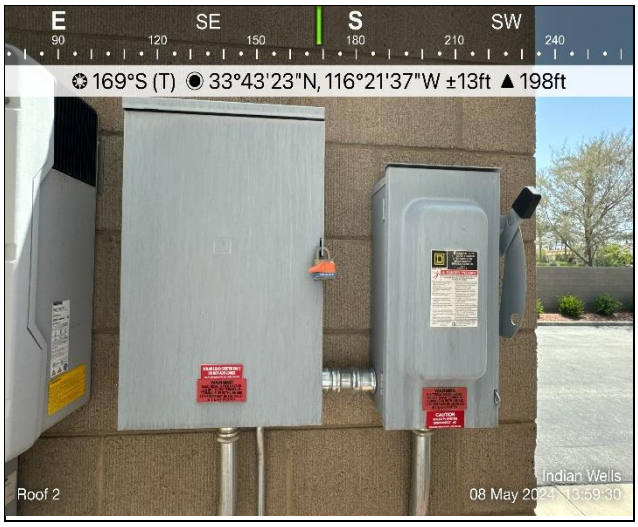
20. Roof 2 standalone meter



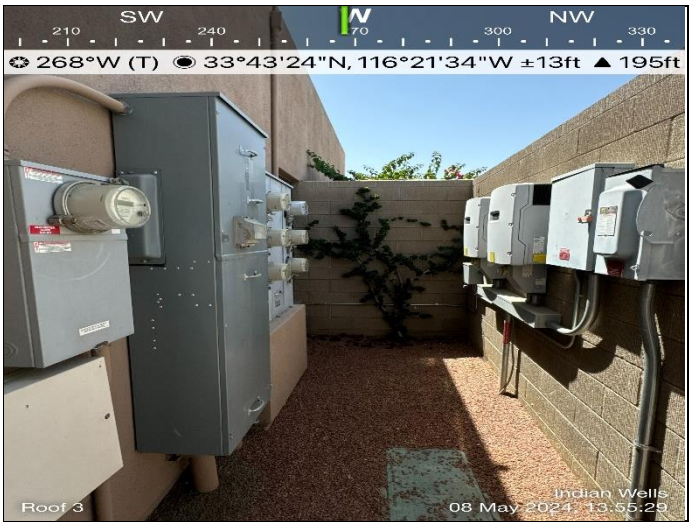
21. Roof 2 inverters



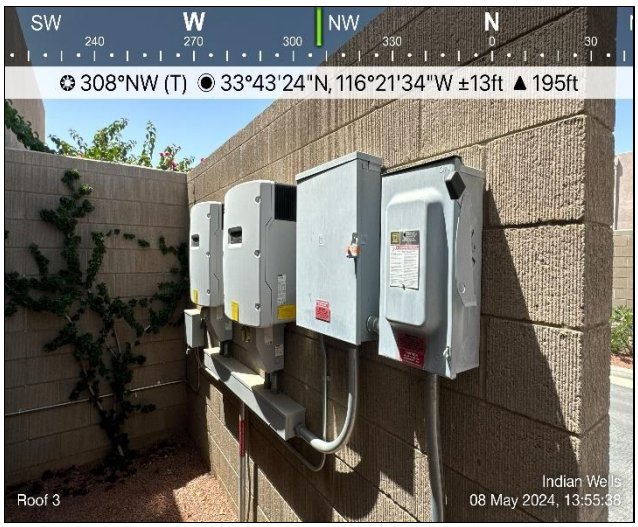
22. Roof 2 inverters label 7000W



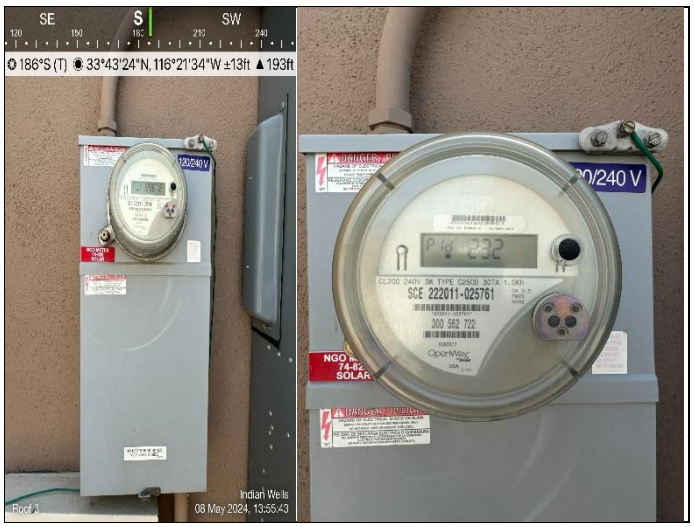
23. Roof 2 disconnect



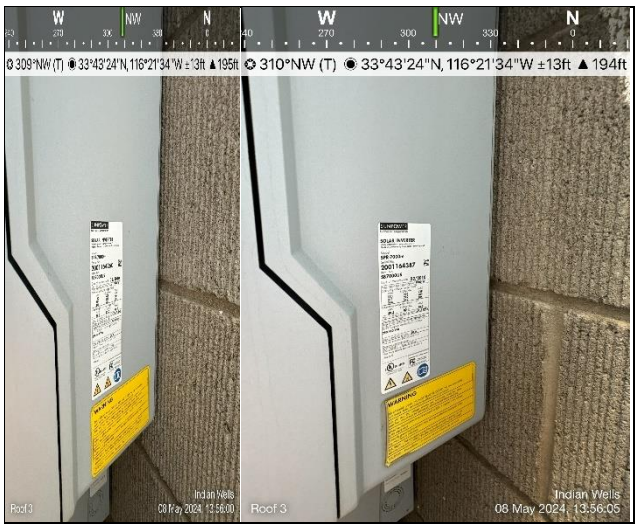
24. Roof 3 electrical corridor



25. Roof 3 AC disconnect and inverters

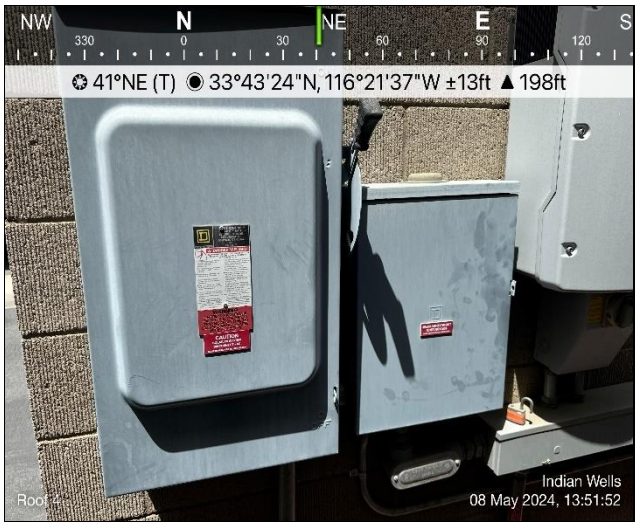


26. Roof 3 standalone meter

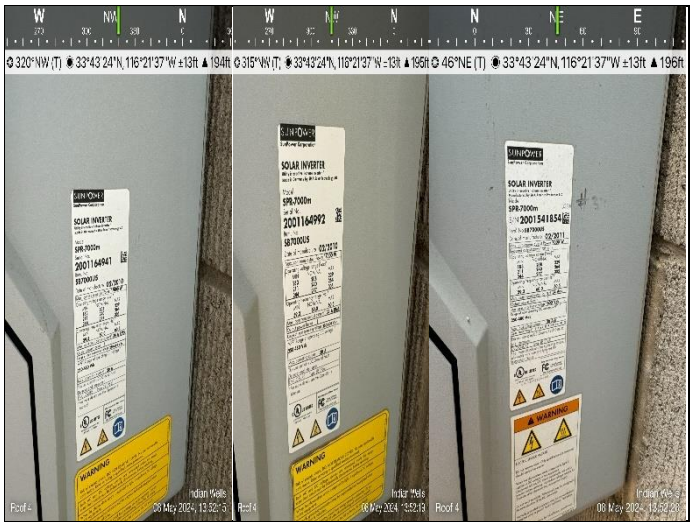


27. Roof 3 inverters label 7000W

28. Roof 4 electrical corridor

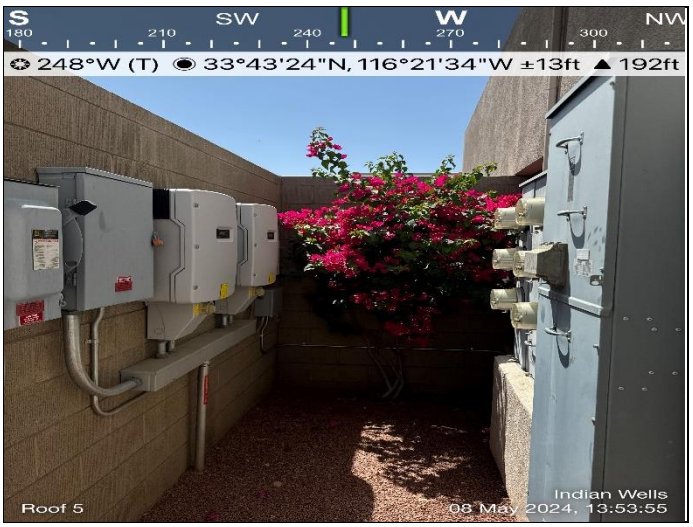


29. Roof 4 AC disconnect

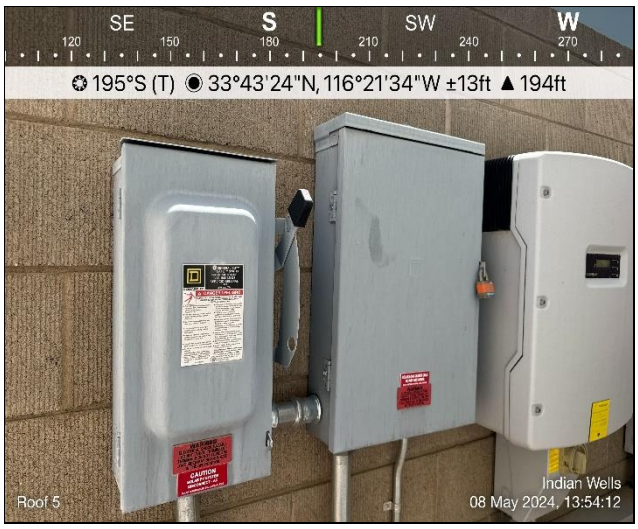


30. Roof 4 with 3 inverters 7000W

31. Roof 4 generation meter



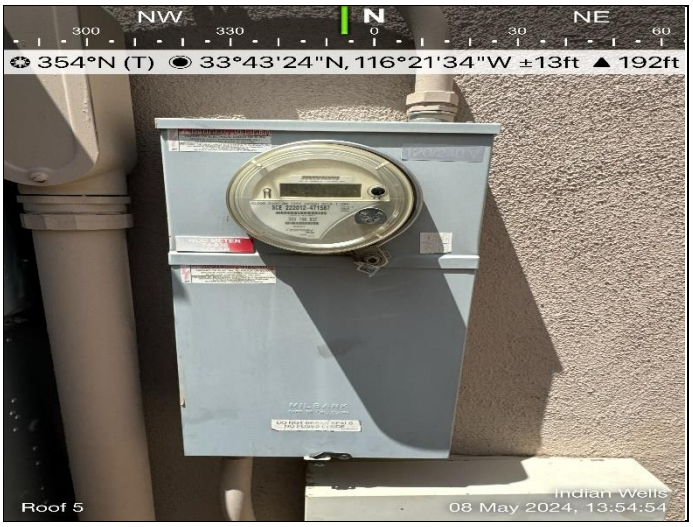
32. Roof 5 electrical corridor



33. Roof 5 AC disconnect

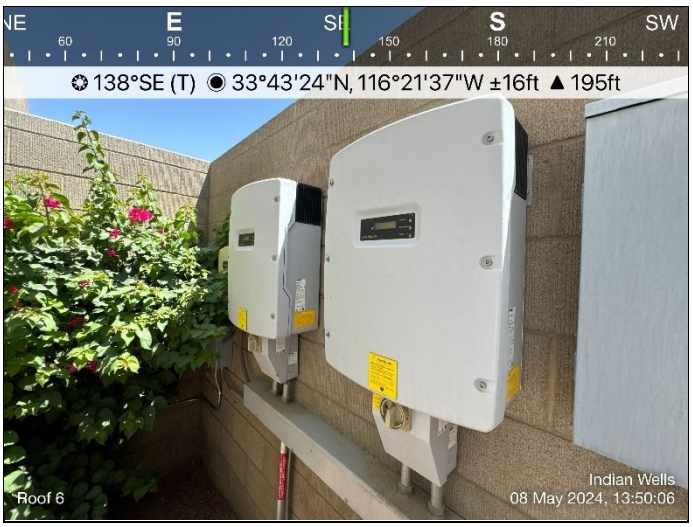
34. Roof 5 inverters

35. Roof 5 inverters label 7000W



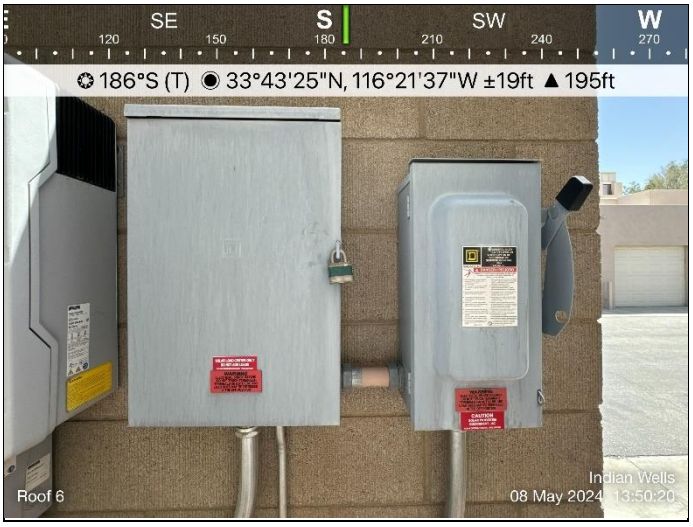
36. Roof 5 standalone meter

37. Roof 6 electrical corridor

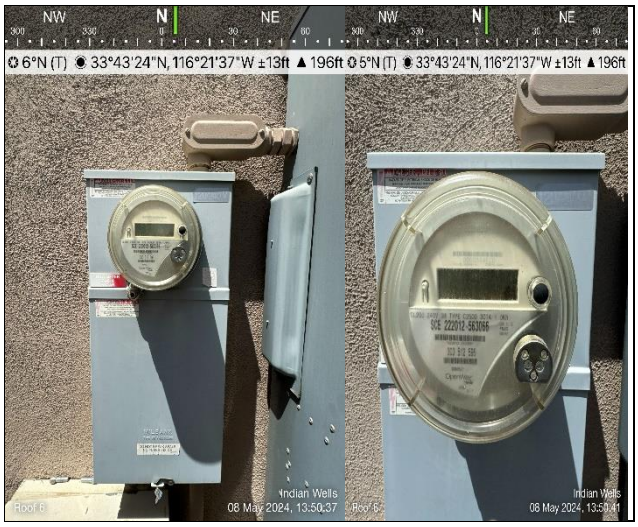


38. Roof 6 inverters

39. Roof 6 inverters label 7000W

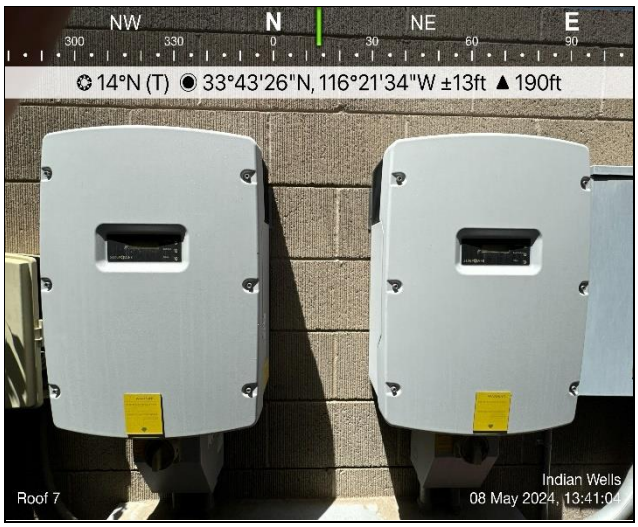


40. Roof 6 AC disconnect



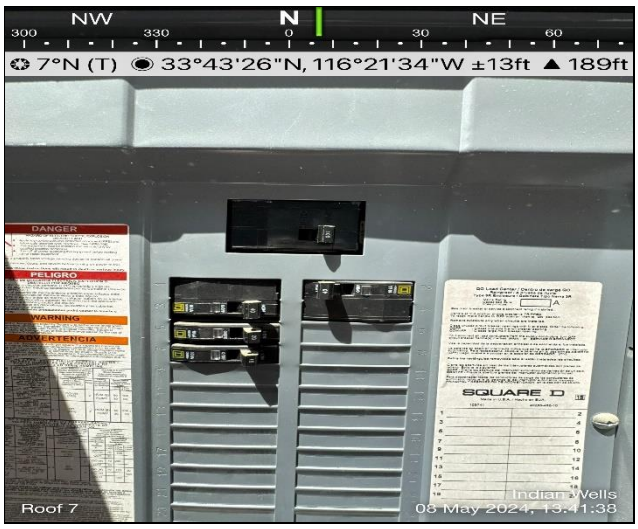
41. Roof 6 standalone meter

42. Roof 7 electrical corridor

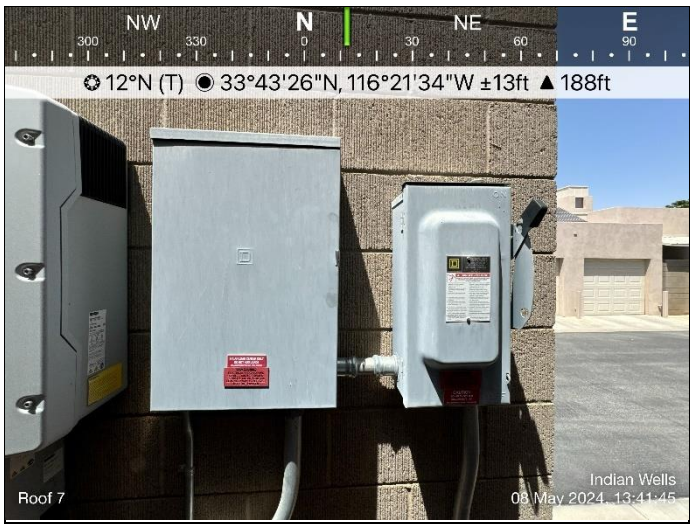


43. Roof 7 inverters

44. Roof 7 inverters label 7000W



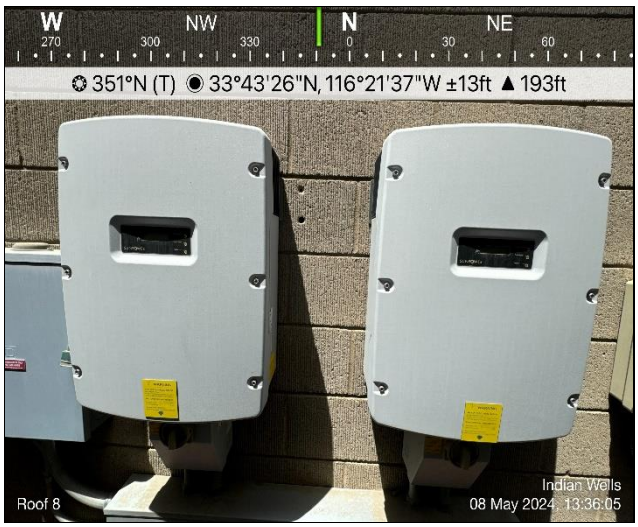
45. Roof 7



46. Roof 7 AC disconnect

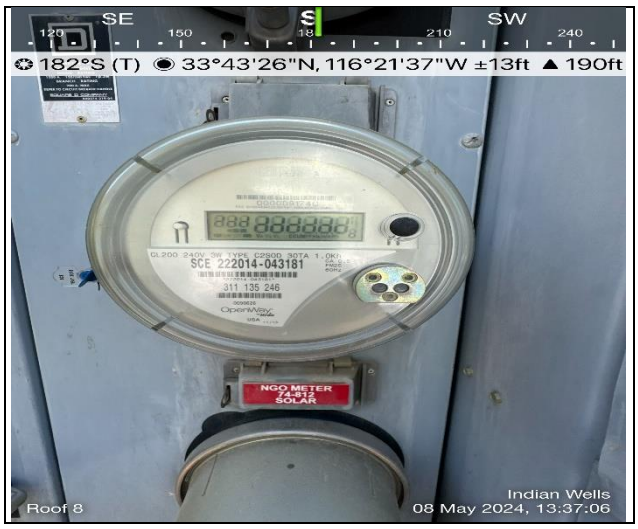
47. Roof 7 standalone meter

48. Roof 8 electrical corridor

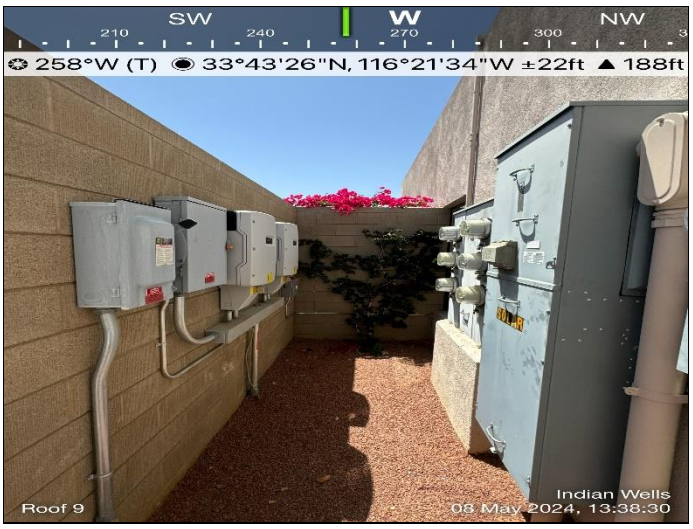


49. Roof 8 inverters

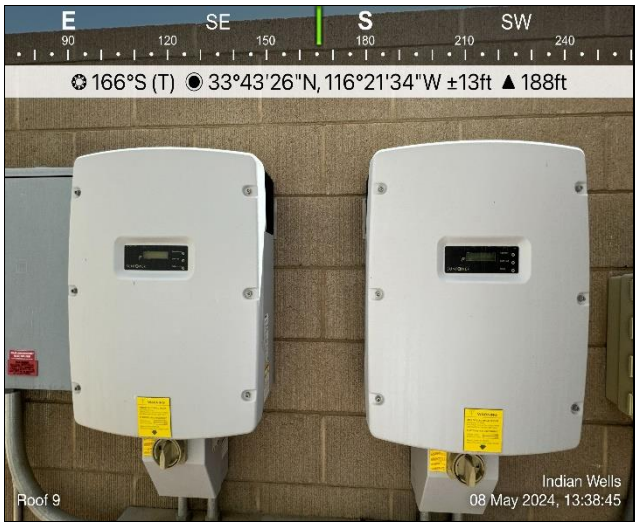
50. Roof 8 AC disconnect



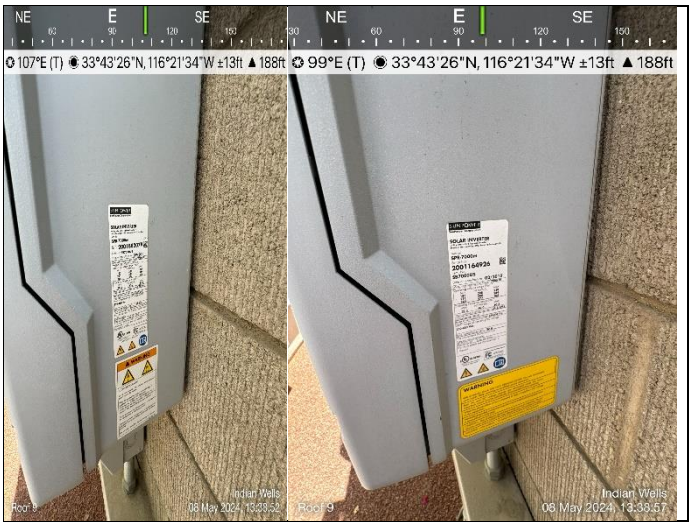
51. Roof 8 generation meter



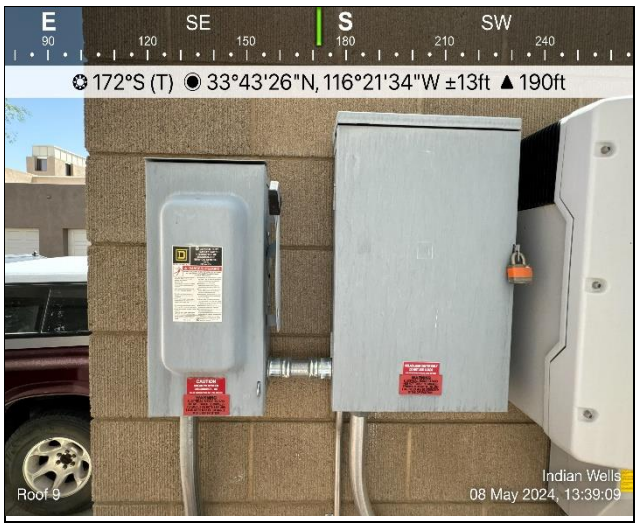
52. Roof 9 electrical corridor



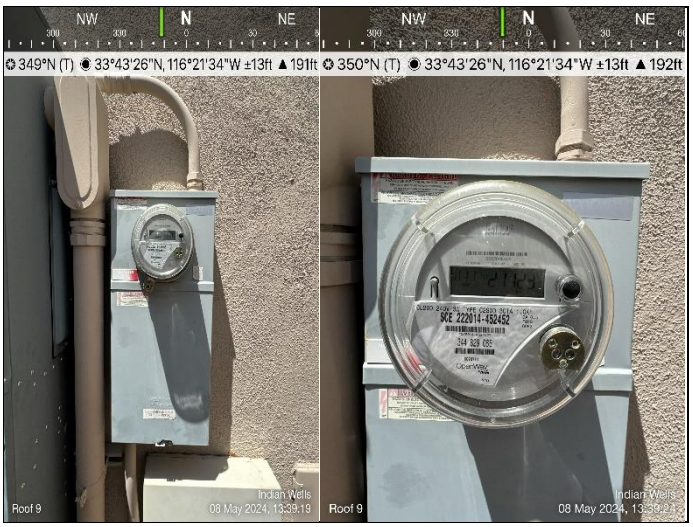
53. Roof 9 inverters



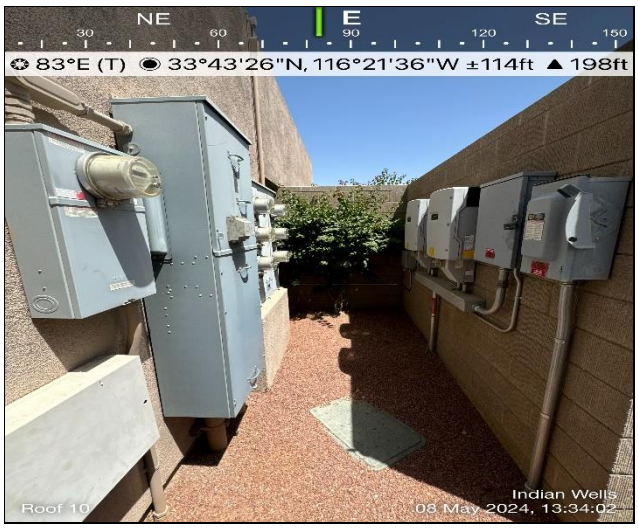
54. Roof 9 inverters label 7000W



55. Roof 9 AC disconnect

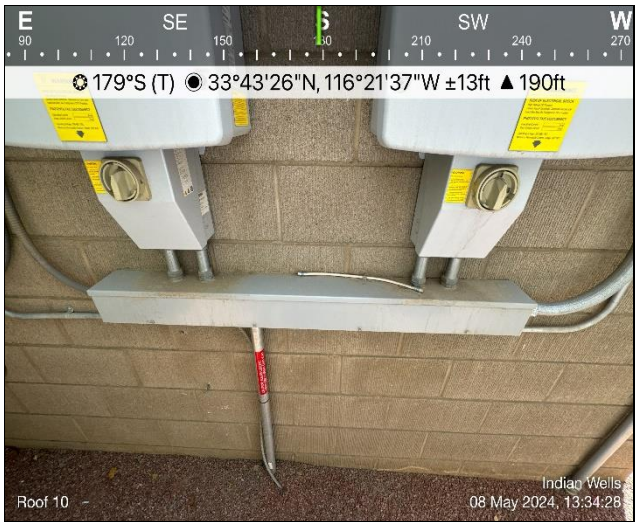


56. Roof 9 standalone

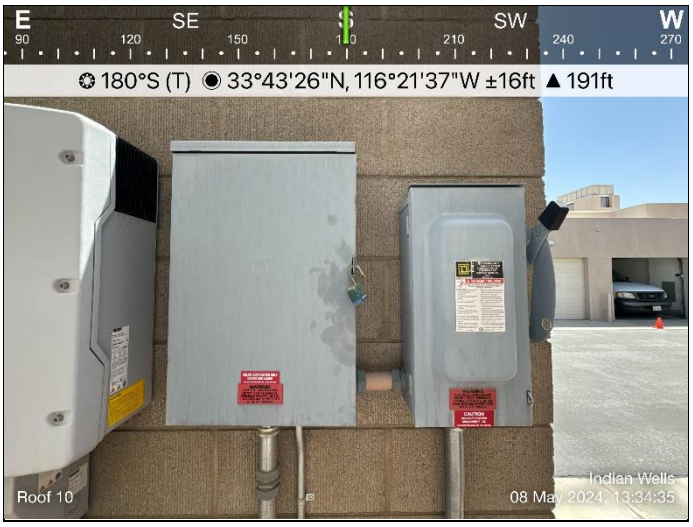


57. Roof 10 electrical corridor

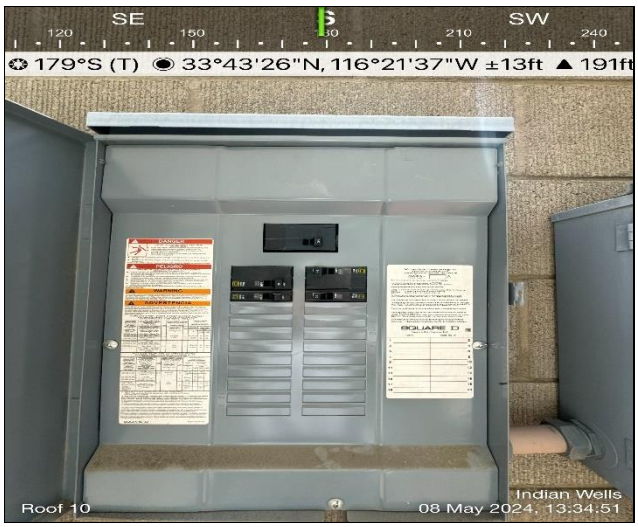
58. Roof 10 inverters



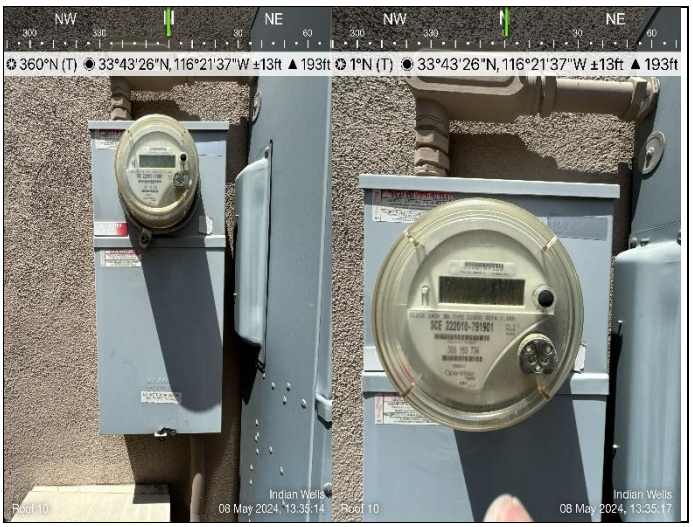
59. Roof 10 splitter



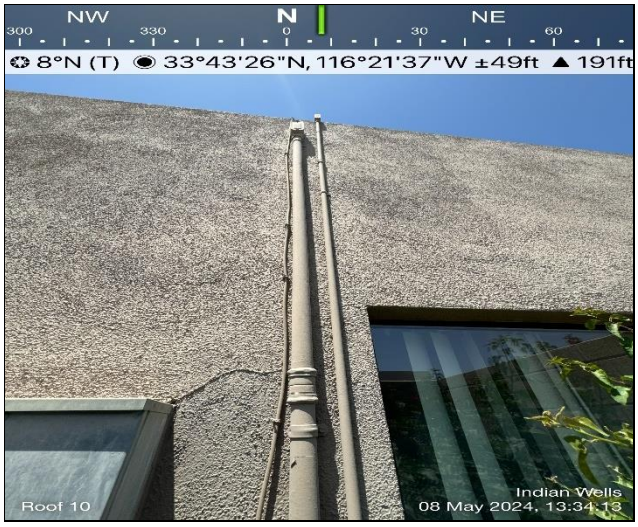
60. Roof 10 AC disconnect



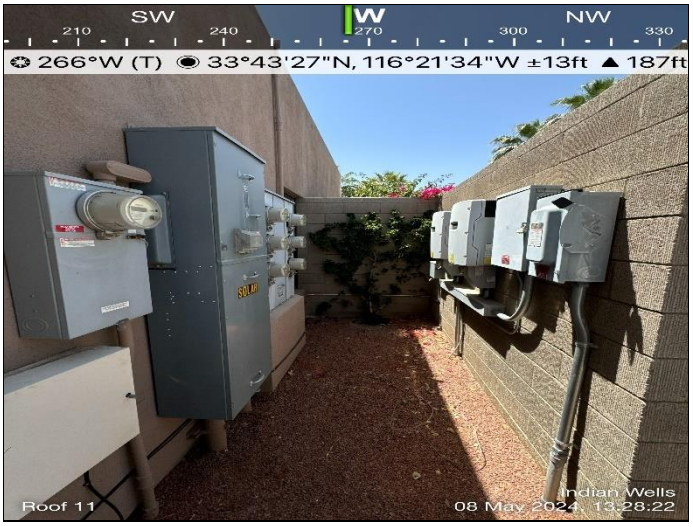
61. Roof 10



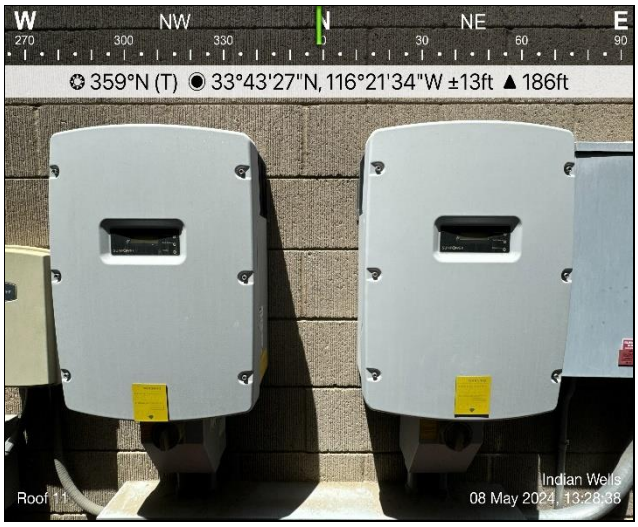
62. Roof 10 standalone meter



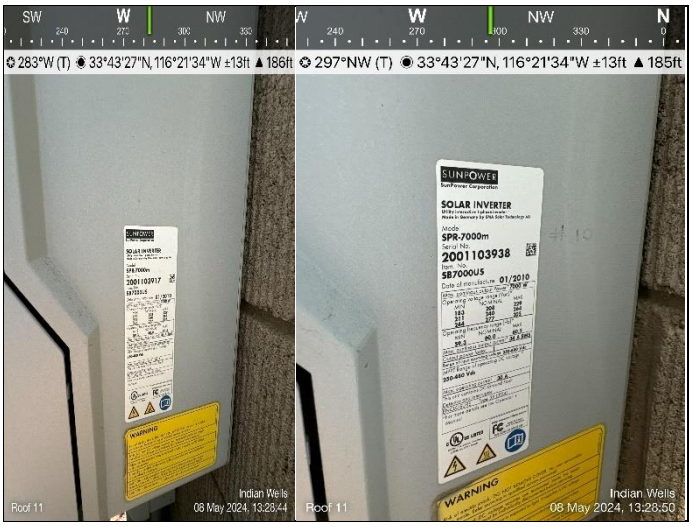
63. Roof 10 DC home run



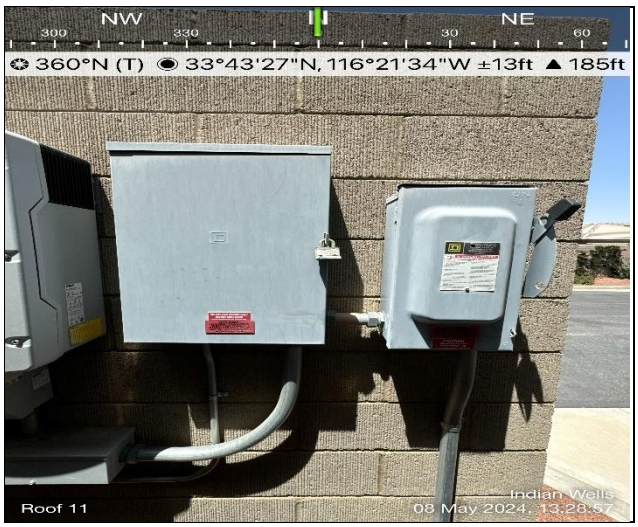
64. Roof 11 electrical corridor



65. Roof 11 inverters



66. Roof 11 inverters label 7000W



67. Roof 11 AC disconnect

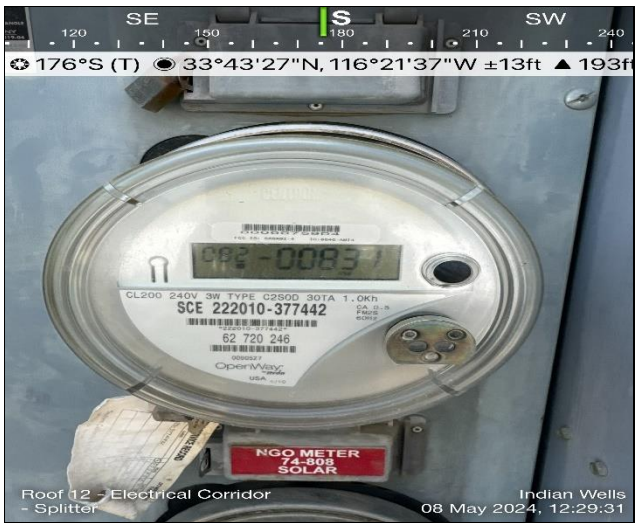
68. Roof 11 standalone meter

69. Roof 12 electrical corridor

70. Roof 12 AC disconnect

71. Roof 12 inverters

72. Roof 12 splitter

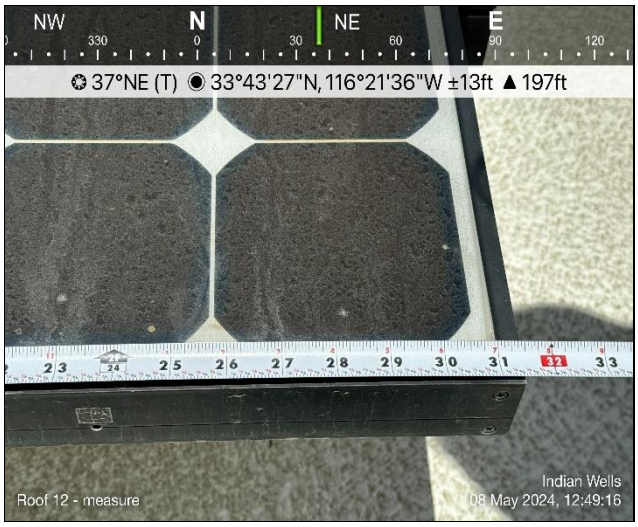


73. Roof 12 generation meter

74. Roof 12 DC home run

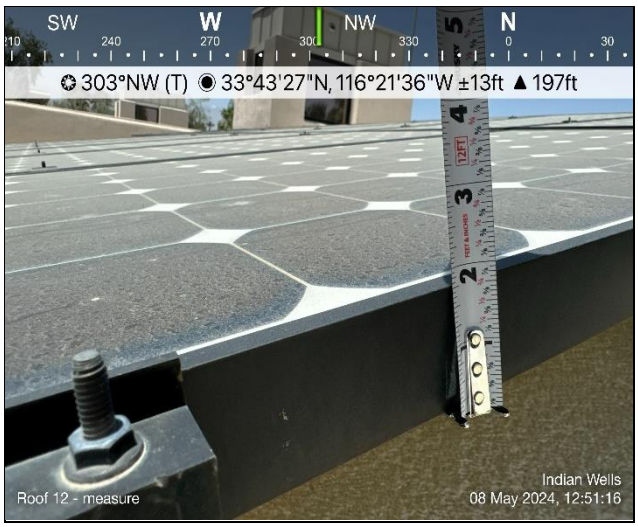
75. Roof 12 tilt 11.2

76. Roof 12 tilt 13

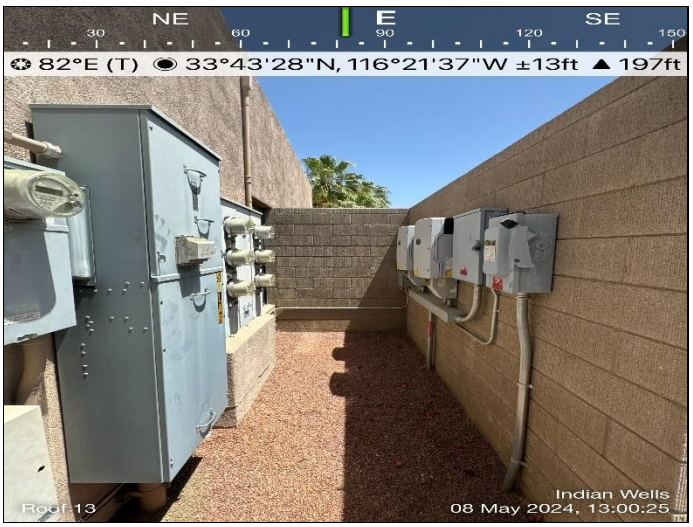


77. Roof 12 measure

78. Roof 12 measure

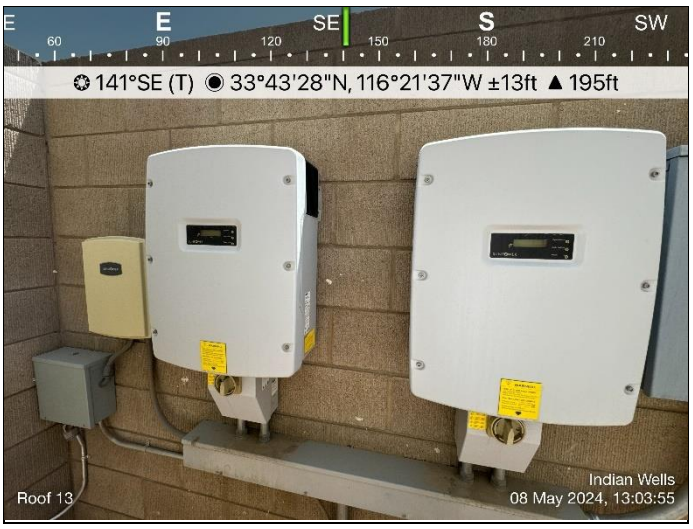


79. Roof 12 measure

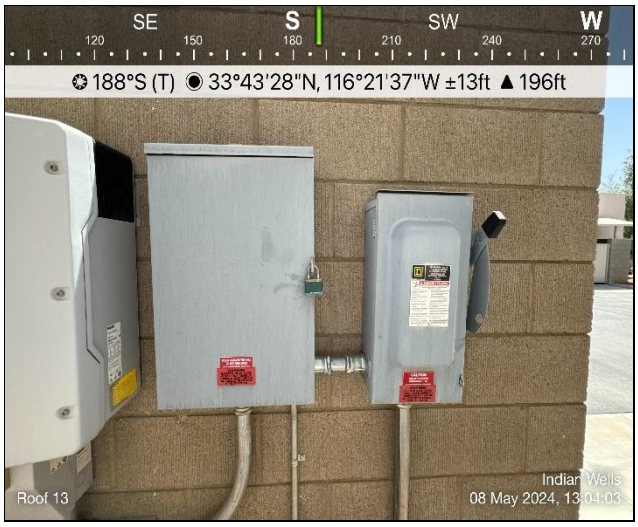


80. Roof 13 electrical corridor

81. Roof 13 standalone meter

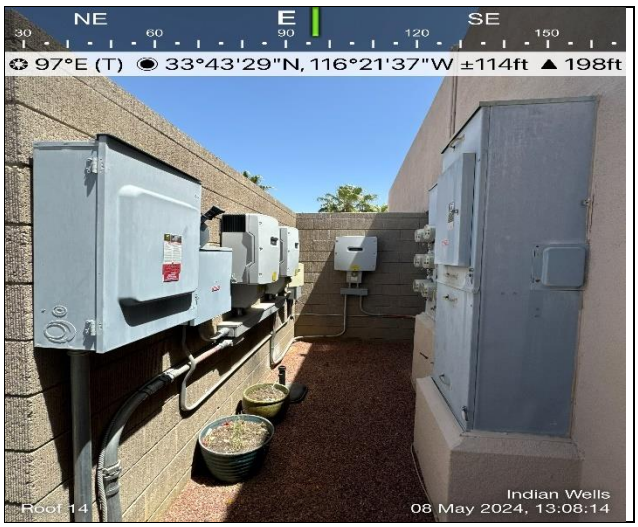


82. Roof 13 inverters



83. Roof 13 AC disconnect

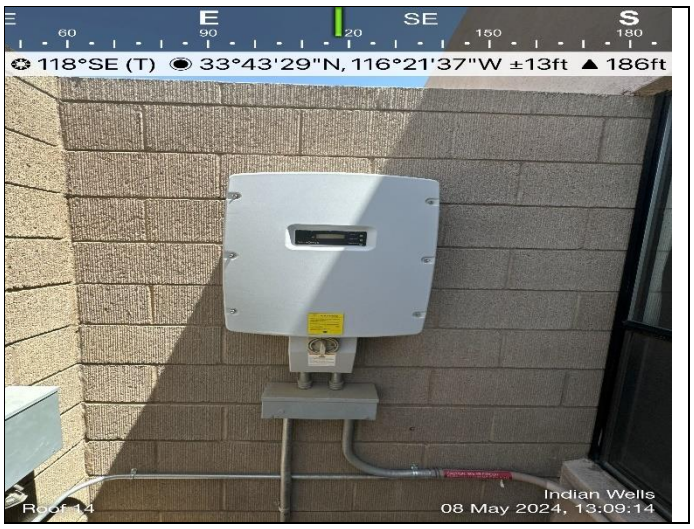
84. Roof 13 splitter



85. Roof 14 electrical corridor

86. Roof 14 AC disconnect

87. Roof 14 two inverters



88. Roof 14 third inverter

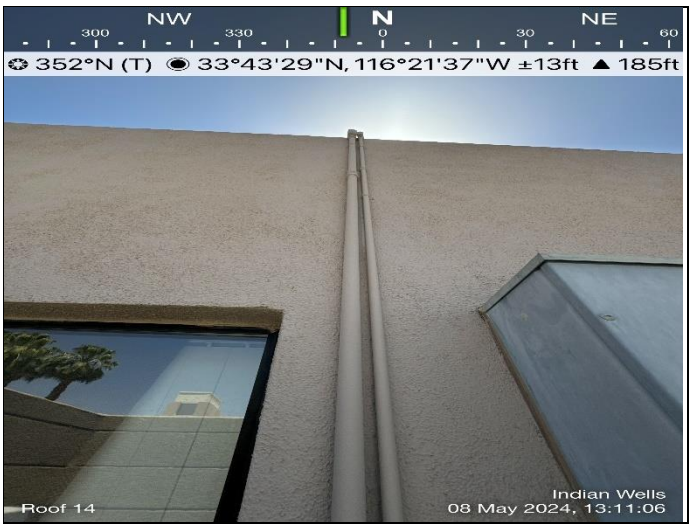
89. Roof 14 inverter label 5000W

90. Roof 14 inverter labels 7000W

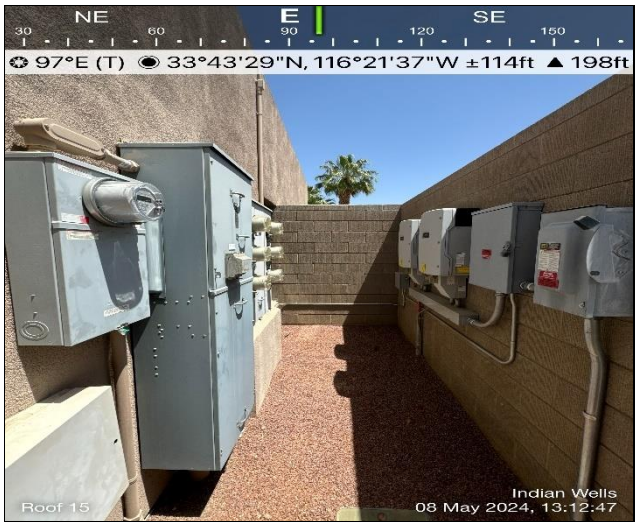
91. Roof 14 splitter

92. Roof 14 generation meter

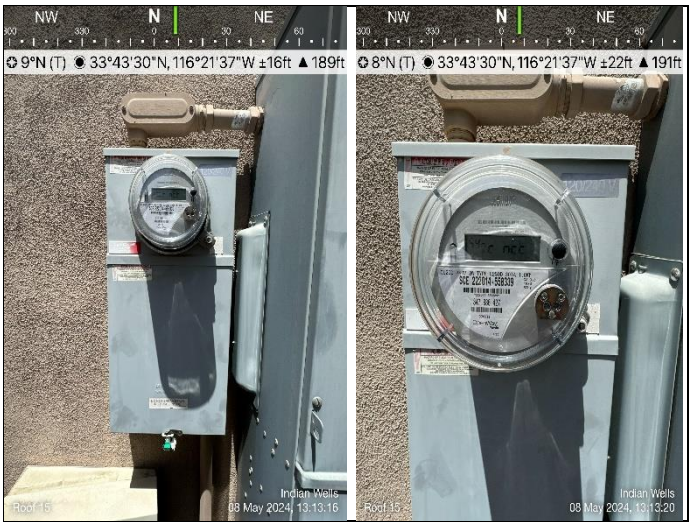
93. Roof 14



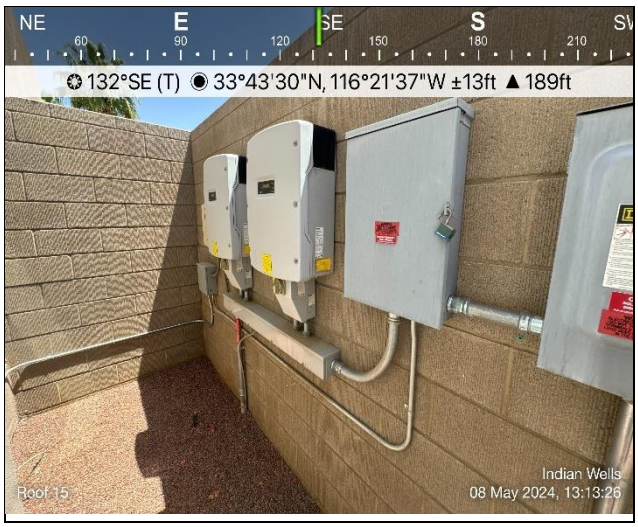
94. Roof 14 DC home run



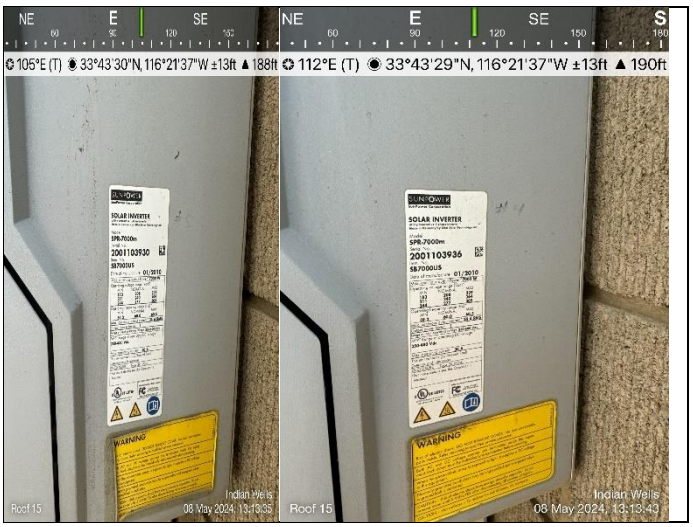
95. Roof 15 electrical corridor



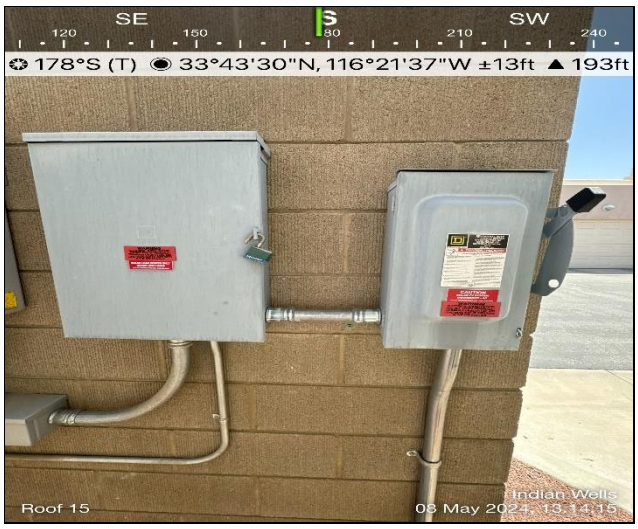
96. Roof 15 standalone meter



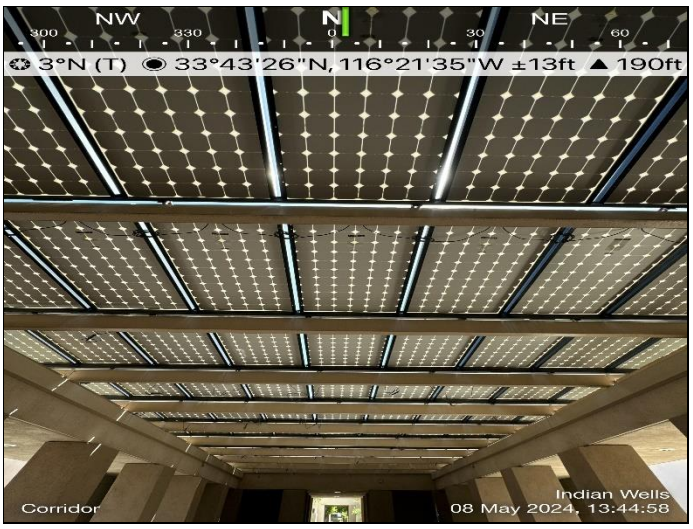
97. Roof 15 inverters



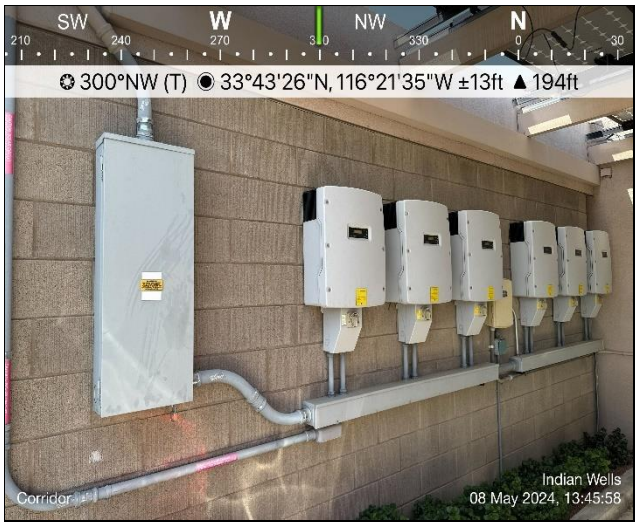
98. Roof 15 inverters label 7000W



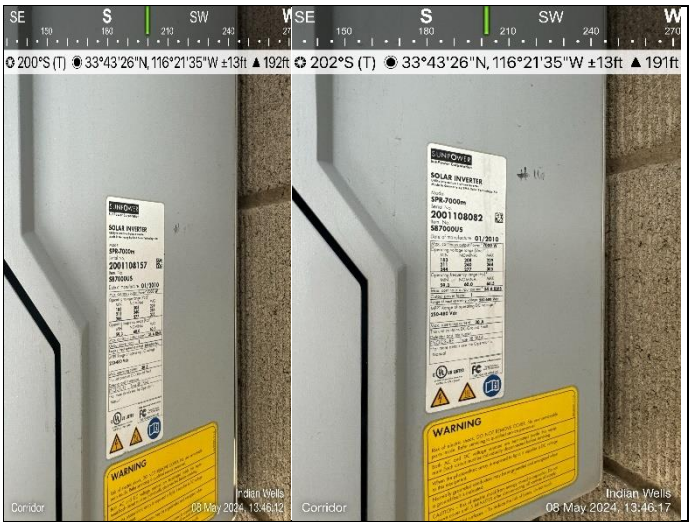
99. Roof 15 AC disconnect



100. Corridor



101. Corridor 6 inverters 7000W



102. Corridor inverter labels 7000W

103. Corridor inverter label 7000W

104. Corridor inverter label 7000W