SMARTER ENERGY SOLUTION

Preventive Maintenance Solar System

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Customer Name :	Andamaya C1	Maintenance :	MA	Date :	17 October 2024

Solar Panel				Inverter		
Brand	Model	Capacity	Install	Brand	Model	S/N
Exiom	EX480TC	20 Kwp.	30 Panels	Solis	3S-GR3P20K	18050B0238040003

Before Preventive Maintenance Solar System

Solar Panels		Operating Voltage / Current			Time	Inspection		Remark
String 1	10 Panels	Voc 384.6 Vdc	Vmp 312.8 Vdc	Isc 10.69 A.	10 : 30	☑ Pass	☐ Not Pass	
String 2	10 Panels	Voc 379.6 Vdc	Vmp 314.8 Vdc	Isc 9.38 A.	:	☑ Pass	☐ Not Pass	
String 3	10 Panels	Voc 383.4 Vdc	Vmp 316.3 Vdc	Isc 10.58 A.	:	☑ Pass	☐ Not Pass	
String 4	Panels	Voc Vdc	Vmp [redacted] Vdc	Isc [redacted] A.	:	☐ Pass	☐ Not Pass	
String 5	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 6	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 7	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 8	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 9	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 10	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 11	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 12	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	

After Preventive Maintenance Solar System

Solar Panels		Operating Voltage / Current			Time	Inspection		Remark
String 1	10 Panels	Voc 380.2 Vdc	Vmp 299.8 Vdc	Isc 6.45 A.	12 :00	☑ Pass	☐ Not Pass	clean
String 2	10 Panels	Voc 376.4 Vdc	Vmp 298.6 Vdc	Isc 4.33 A.	4 :	☑ Pass	☐ Not Pass	
String 3	10 Panels	Voc 381.7 Vdc	Vmp 299.9 Vdc	Isc 6.67 A.	:	☑ Pass	☐ Not Pass	
String 4	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 5	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 6	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 7	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 8	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 9	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 10	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 11	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	
String 12	Panels	Voc Vdc	Vmp Vdc	Isc A.	:	☐ Pass	☐ Not Pass	

Inverter Inspection

Device	Readings from Smarter Meter	Readings from Inverter Display	Field Measured Readings	Remark
Inverter	**AC Line Voltage**	**AC Line Voltage**	**AC Line Voltage**	
	Phase L1 to Grd : 235.9 Vac	Phase L1 to Grd : 234.4 Vac	Phase L1 to Grd : 235.7 Vac	
	Phase L2 to Grd : 234.9 Vac	Phase L2 to Grd : 236.6 Vac	Phase L2 to Grd : 234.2 Vac	
	Phase L3 to Grd : 237.1 Vac	Phase L3 to Grd : 234.6 Vac	Phase L3 to Grd : 236.8 Vac	
	AC Line Current	**AC Line Current**	**AC Line Current**	
	Phase L1 to Grd : 3.60 A	Phase L1 to Grd : 15.1 A	Phase L1 to Grd : 17.78 A	
	Phase L2 to Grd : 10.40 A	Phase L2 to Grd : 13.9 A	Phase L2 to Grd : 16.60 A	
	Phase L3 to Grd : 11.20 A	Phase L3 to Grd : 17.0 A	Phase L3 to Grd : 16.08 A	

Comment :

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Electrical Room Inspection

Customer Name :		Date :	

Solar Panel				Inverter		
Brand	Model	Capacity	Install	Brand	Model	S/N
		Kwp.	Panels			

Device	Ambient Temperature	Temperature				Remark
Inverter	47.7 C	Inside : 56.3 C	Outside : 30.1 C	Heatsync : 60.8 C		
AC Cabinet	36.2 C	MCB Breaker : 40 A. 38.7 C	RCCB Breaker : ____ A. ____ C	AC SPD : 3 Phase 38.9 C		
		AC Cable : 10 Sq.m.	Smart Meter : 39.7 C	CT Ratio : 150 5 A.		
		AC Terminal : 39.5 C	3 Phase	Meter Ratio : 5 A.		
		String No.	DC Fuse	DC Breaker	DC SPD	MC4 Connector
DC Cabinet 1	39.2 C	String 1	42.4 C ____ A.	40.8 C ____ Vdc ____ A.	39.5 C ____ Vdc ____ A.	40.0 C
		String 2	40.4 C ____ A.	40.7 C ____ Vdc ____ A.	39.1 C ____ Vdc ____ A.	41.3 C
		String 3	40.8 C ____ A.	40.2 C ____ Vdc ____ A.	39.2 C ____ Vdc ____ A.	39.8 C
		String 4	39.7 C ____ A.	39.0 C ____ Vdc ____ A.	38.6 C ____ Vdc ____ A.	38.7 C
EE Room	37.9 C	AC Cable : 25 Sq.m.	Main Breaker : 63 A.	MCCB Feed : ____ A.		
		Wireway : 36.9 C	MDB / LC : 38.2 C	____ C		

Comment : .....

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Inspection By : _____

(Bunharn Libnoy)
Project Engineer

Date : ____/____/____

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Preventive Maintenance Solar System

Item	Solar System Inspection	Inspection		Remark
1	Clean the Solar panel (Use clean water) ทำความสะอาดแผงโซล่า เซลล์ (ใช้น้ำสะอาด)	☑ Pass	☐ Not Pass	
2	Check to see if the solar panel's condition ตรวจสอบการแตกร้าวของแผงโซล่า เซลล์	☑ Pass	☐ Not Pass	
3	Inspect the mounting points of the roof mounting support legs for the risk of water leaking. (Use water Proof , Polyurethane PU,Sika MultiSeal AP to prevent water leakage) ตรวจสอบจุดยึดของ Support ที่ยึดกับหลังคา ว่ามีจุดเสี่ยงที่จะทำให้เกิดน้ำรั่วได้หรือไม่ (ใช้ water proof , สิริโครน PU , แผ่นซิก้าป้องกันน้ำ)	☑ Pass	☐ Not Pass	
4	Inspect the mounting parts of the solar cell. ตรวจสอบสภาพโครงสร้างทั้งหมด เพื่อดูว่า PV, Mounting และอุปกรณ์ประกอบอื่นๆ ไม่หลวม	☑ Pass	☐ Not Pass	
5	Inspect the condition of all cables to make sure The cables does not sag down to the roof. ตรวจสอบสภาพของสายทั้งหมดเพื่อให้แน่ใจว่า สายไม่หย่อนลงไปที่หลังคา	☑ Pass	☐ Not Pass	
6	Inspect the tightness of the wire terminals. ตรวจสอบความแน่นของขั้วสายไฟ			
6.1	-AC - Grid in Inverter	☑ Pass	☐ Not Pass	
6.2	-Back - up in Inverter (Specific model Hybrid)	☐ Pass	☐ Not Pass	
6.3	-Battery (Specific model Hybrid)	☐ Pass	☐ Not Pass	
6.4	-AC Breaker	☑ Pass	☐ Not Pass	
6.5	-DC Breaker	☑ Pass	☐ Not Pass	
6.6	-Fuse Holder	☑ Pass	☐ Not Pass	
6.7	-Surge Protection	☑ Pass	☐ Not Pass	
6.8	- Smarter Meter & CT (Current Transformer)	☑ Pass	☐ Not Pass	
7	Check whether the SISO Switch is defective ตรวจสอบ SISO Switch ว่าชำรุดหรือไม่	☑ Pass	☐ Not Pass	
8	Inspect for malfunctions of the inverter and other related electrical equipment. ตรวจสอบความผิดปกติของอินเวอร์เตอร์และอุปกรณ์ไฟฟ้าอื่น ๆ ที่เกี่ยวข้อง	☑ Pass	☐ Not Pass	
9	Insapect heat of the solar panel whether there is an abnormal heat point or not (checked by using a thermal camera) การตรวจสอบความร้อนของแผงโซลาร์เซลล์ว่ามีจุดความร้อนผิดปกติหรือไม่ (ตรวจสอบโดยใช้กล้องถ่ายภาพความร้อน)	☑ Pass	☐ Not Pass	

Comment : .....

Inspection By : _____

(Bunharn Libnoy)
Project Engineer

Date : _____/_____/_____