SMARTER ENERGY SOLUTION

Preventive Maintenance Solar System

Customer Name :	Piero	Maintenance :	MA	Date :	22 November 2024

Solar Panel				Inverter		
Brand	Model	Capacity	Install	Brand	Model	S/N
Sonax	SNX-D60HND-480M	5+3 Kwp.	16 Panels	Solis	S6-GR1P5K	18020502246140603

Before Preventive Maintenance Solar System — Mini-3000-4G 110E52213900039

Solar Panels	Operating Voltage / Current			Time	Inspection		Remark
String 1	10 Panels	Voc 389.0 Vdc	Vmp 373.7 Vdc	Isc 5.19 A.	13 : 45	☑ Pass	☐ Not Pass	
String 2	6 Panels	Voc 233.9 Vdc	Vmp 232.4 Vdc	Isc 1.12 A.	:	☑ Pass	☐ Not Pass	
String 3	____ Panels	Voc ____ Vdc	Vmp ____ Vdc	Isc ____ 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	

After Preventive Maintenance Solar System

Solar Panels	Operating Voltage / Current			Time	Inspection		Remark
String 1	10 Panels	Voc 402.8 Vdc	Vmp 338.2 Vdc	Isc 3.22 A.	14 : 30	☑ Pass	☐ Not Pass	ehuman
String 2	6 Panels	Voc 242.1 Vdc	Vmp 241.3 Vdc	Isc 1.10 A.	:	☑ Pass	☐ Not Pass	
String 3	____ Panels	Voc ____ Vdc	Vmp ____ Vdc	Isc ____ 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				Remark
Device	Readings from Smarter Meter	Readings from Inverter Display	Field Measured Readings	
	AC Line Voltage	**AC Line Voltage**	**AC Line Voltage**	
5K →	Phase L1 to Grd : 227.0 Vac	Phase L1 to Grd : 227.2 Vac	Phase L1 to Grd : 226.3 Vac	
	Phase L2 to Grd : ____ Vac	Phase L2 to Grd : ____ Vac	Phase L2 to Grd : ____ Vac	
3K → Inverter	Phase L3 to Grd : 224.7 Vac	Phase L3 to Grd : 227.4 Vac	Phase L3 to Grd : 227.6 Vac	
	AC Line Current	**AC Line Current**	**AC Line Current**	
5K →	Phase L1 to Grd : 0.23 A	Phase L1 to Grd : 5.9 A	Phase L1 to Grd : 2.89 A	
	Phase L2 to Grd : ____ A	Phase L2 to Grd : ____ A	Phase L2 to Grd : ____ A	
3K →	Phase L3 to Grd : 0.24 A	Phase L3 to Grd : 0.5 A	Phase L3 to Grd : 0.91 A	

Comment :

SMARTER ENERGY SOLUTION

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	42.5 C	Inside : 45.1 C	Outside : 42.8 C	Heatsync : 46.6 C		
AC Cabinet	38.8 C	MCB Breaker : 32 A. 39.8 C	RCCB Breaker : ____ A. ____ C	AC SPD : 1 Phase 39.9 C		
		AC Cable : 6 Sq.m.	Smart Meter : 36.4 C	CT Ratio : 150 5 A.		
		AC Terminal : 38.4 C	1 Phase	Meter Ratio : 30 A.		
		String No.	DC Fuse	DC Breaker	DC SPD	MC4 Connector
DC Cabinet 1	39.4 C	String 1	40.7 C ____ A.	40.9 C ____ Vdc ____ A.	40.4 C ____ Vdc ____ A.	40.5 C
		String 2	40.0 C ____ A.	40.2 C ____ Vdc ____ A.	40.2 C ____ Vdc ____ A.	41.1 C
		String 3	____ C ____ A.	____ C ____ Vdc ____ A.	____ C ____ Vdc ____ A.	____ C
		String 4	____ C ____ A.	____ C ____ Vdc ____ A.	____ C ____ Vdc ____ A.	____ C
EE Room	36.8 C	AC Cable : 25 Sq.m.	Main Breaker : 63 A.	MCCB Feed : ____ A.		
		Wireway : 39.7 C	MDB / LC : 37.4 C	____ C		

Comment : _____

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 : _____/_____/_____