SMARTER ENERGY SOLUTION

Preventive Maintenance Solar System

Customer Name :	David Residence	Maintenance :	MA	Date :	2 December 2024

Solar Panel				Inverter		
Brand	Model	Capacity	Install	Brand	Model	S/N
Canadian	CS6L-680MS	60 Kwp.	117 Panels	HUAWEI	SUN2000-60KTL-M0	6121990239LL

Before Preventive Maintenance Solar System

Solar Panels	Operating Voltage / Current			Time	Inspection		Remark
String 1 ____ Panels	Voc 799.0 Vdc	Vmp 721.0 Vdc	Isc 5.76 A.	10 : 10	☑ Pass	☐ Not Pass	
String 2 ____ Panels	Voc 806.0 Vdc	Vmp 724.0 Vdc	Isc 9.79 A.	:	☑ Pass	☐ Not Pass	
String 3 ____ Panels	Voc 804.0 Vdc	Vmp 721.0 Vdc	Isc 9.80 A.	:	☑ Pass	☐ Not Pass	
String 4 ____ Panels	Voc 805.0 Vdc	Vmp 714.0 Vdc	Isc 9.80 A.	:	☑ Pass	☐ Not Pass	
String 5 ____ Panels	Voc 811.0 Vdc	Vmp 766.0 Vdc	Isc 6.07 A.	:	☑ Pass	☐ Not Pass	
String 6 ____ Panels	Voc 766.0 Vdc	Vmp 741.0 Vdc	Isc 3.37 A.	:	☑ Pass	☐ Not Pass	
String 7 ____ Panels	Voc 779.0 Vdc	Vmp 743.0 Vdc	Isc 4.42 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 ____ Panels	Voc 793.0 Vdc	Vmp 650.0 Vdc	Isc 8.12 A.	11 :45	☑ Pass	☐ Not Pass	
String 2 ____ Panels	Voc 803.0 Vdc	Vmp 664.0 Vdc	Isc 8.33 A.	:	☑ Pass	☐ Not Pass	
String 3 ____ Panels	Voc 760.0 Vdc	Vmp 625.0 Vdc	Isc 7.80 A.	:	☑ Pass	☐ Not Pass	
String 4 ____ Panels	Voc 790.0 Vdc	Vmp 721.0 Vdc	Isc 8.27 A.	:	☑ Pass	☐ Not Pass	
String 5 ____ Panels	Voc 792.0 Vdc	Vmp 708.0 Vdc	Isc 8.57 A.	:	☑ Pass	☐ Not Pass	
String 6 ____ Panels	Voc 759.0 Vdc	Vmp 697.0 Vdc	Isc 4.15 A.	:	☑ Pass	☐ Not Pass	
String 7 ____ Panels	Voc 759.0 Vdc	Vmp 616.0 Vdc	Isc 4.93 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	
Inverter	**AC Line Voltage**	**AC Line Voltage**	**AC Line Voltage**	
	Phase L1 to Grd : ____ Vac	Phase L1 to Grd : ____ Vac	Phase L1 to Grd : 233.1 Vac	
	Phase L2 to Grd : ____ Vac	Phase L2 to Grd : ____ Vac	Phase L2 to Grd : 232.7 Vac	
	Phase L3 to Grd : ____ Vac	Phase L3 to Grd : ____ Vac	Phase L3 to Grd : 232.3 Vac	
	AC Line Current	**AC Line Current**	**AC Line Current**	
	Phase L1 to Grd : ____ A	Phase L1 to Grd : ____ A	Phase L1 to Grd : 39.98 A	
	Phase L2 to Grd : ____ A	Phase L2 to Grd : ____ A	Phase L2 to Grd : 39.84 A	
	Phase L3 to Grd : ____ A	Phase L3 to Grd : ____ A	Phase L3 to Grd : 39.90 A	

Comment :

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Electrical Room Inspection

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Customer Name :		Date :	

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

Device	Ambient Temperature	Temperature				Remark
Inverter	43.0 C	Inside : 49.1 C	Outside : 44.1 C	Heatsync : 49.5 C		
AC Cabinet	36.0 C	MCB Breaker : 125 A. 37.2 C	RCCB Breaker : ____ A. ____ C	AC SPD : 3 Phase 36.0 C		
		AC Cable : 25 Sq.m.	Smart Meter : 38.4 C	CT Ratio : 100 / 5 A.		
		AC Terminal : 37.7 C	3 Phase	Meter Ratio : ____ A.		
		String No.	DC Fuse	DC Breaker	DC SPD	MC4 Connector
DC Cabinet 1	36.3 C	String 1	38.3 C ____ A.	38.2 C ____ Vdc ____ A.	30.6 C ____ Vdc ____ A.	34.6 C
		String 2	38.7 C ____ A.	38.2 C ____ Vdc ____ A.	37.4 C ____ Vdc ____ A.	37.1 C
		String 3	38.1 C ____ A.	37.9 C ____ Vdc ____ A.	37.4 C ____ Vdc ____ A.	36.7 C
		String 4	38.0 C ____ A.	38.1 C ____ Vdc ____ A.	37.5 C ____ Vdc ____ A.	37.3 C
EE Room	37.8 C	AC Cable : ____ Sq.m.	Main Breaker : ____ A.		MCCB Feed : ____ A.	
		Wireway : 36.6 C	MDB / LC : ____ C		____ C	

Comment :

St 5	38.2	38.4	37.6	37.6
St 6	38.0	37.9	37.7	37.5
St 7	39.8	39.2	38.0	37.7

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 : _____/_____/_____