

SMARTER ENERGY SOLUTION

Preventive Maintenance Solar System



Customer Name : Lake View Spa Maintenance : MA Date : 11 November 2024

Solar Panel				Inverter		
Brand	Model	Capacity	Install	Brand	Model	S/N
<u>Eastlux</u>	<u>ELL5003-60A</u>	<u>10</u> Kwp.	<u>29</u> Panels	<u>Solis</u>	<u>3P10K-4G</u>	<u>1107A2216070011</u>

Before Preventive Maintenance Solar System							
Solar Panels	Operating Voltage / Current			Time	Inspection		Remark
String 1	Panels Voc <u>478.0</u> Vdc	Vmp <u>403.0</u> Vdc	Isc <u>7.39</u> A.	<u>13:00</u>	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 2	Panels Voc <u>989.1</u> Vdc	Vmp <u>499.2</u> Vdc	Isc <u>6.31</u> A.	:	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 3	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 4	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 5	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 6	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 7	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 8	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 9	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 10	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 11	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 12	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	

After Preventive Maintenance Solar System							
Solar Panels	Operating Voltage / Current			Time	Inspection		Remark
String 1	Panels Voc <u>472.6</u> Vdc	Vmp <u>399.2</u> Vdc	Isc <u>4.12</u> A.	<u>14:00</u>	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 2	Panels Voc <u>980.7</u> Vdc	Vmp <u>489.6</u> Vdc	Isc <u>4.00</u> A.	:	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 3	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 4	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 5	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 6	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 7	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 8	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 9	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 10	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 11	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 12	Panels Voc _____ Vdc	Vmp _____ Vdc	Isc _____ A.	:	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	

Inverter Inspection				Remark
Device	Readings from Smarter Meter	Readings from Inverter Display	Field Measured Readings	
Inverter	AC Line Voltage			
	Phase L1 to Grd : <u>226.4</u> Vac	Phase L1 to Grd : <u>227.0</u> Vac	Phase L1 to Grd : <u>225.0</u> Vac	
	Phase L2 to Grd : <u>228.0</u> Vac	Phase L2 to Grd : <u>228.7</u> Vac	Phase L2 to Grd : <u>227.2</u> Vac	
	Phase L3 to Grd : <u>220.7</u> Vac	Phase L3 to Grd : <u>219.6</u> Vac	Phase L3 to Grd : <u>220.5</u> Vac	
	AC Line Current			
	Phase L1 to Grd : <u>4.80</u> A	Phase L1 to Grd : <u>9.0</u> A	Phase L1 to Grd : <u>0.86</u> A	
	Phase L2 to Grd : <u>7.80</u> A	Phase L2 to Grd : <u>9.1</u> A	Phase L2 to Grd : <u>0.83</u> A	
Phase L3 to Grd : <u>3.60</u> A	Phase L3 to Grd : <u>9.0</u> A	Phase L3 to Grd : <u>0.81</u> A		

Comment : _____

SMARTER ENERGY SOLUTION

Electrical Room Inspection



Customer Name :	Date :
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Solar Panel				Inverter		
Brand	Model	Capacity Kwp.	Install Panels	Brand	Model	S/N

Device	Ambient Temperature	Temperature				Remark
Inverter	49.0 C	Inside : 51.4 C	Outside : 46.8 C	Heatsync : 53.2 C		
AC Cabinet	39.6 C	MCB Breaker : 40 A.	RCCB Breaker : _____ A.	AC SPD : 3 Phase		
		AC Cable : 6 Sq.m.	Smart Meter : 3 C	CT Ratio : 150/5 A.		
		AC Terminal : 39.7 C	40.8 Phase	Meter Ratio : 30 A.		
DC Cabinet 1	40.1 C	String No.	DC Fuse	DC Breaker	DC SPD	MC4 Connector
		String 1	41.4 C	41.3 C	40.6 C	40.1 C
		String 2	42.8 C	43.1 C	41.2 C	40.2 C
		String 3	_____ C	_____ C	_____ C	_____ C
		String 4	_____ C	_____ C	_____ C	_____ C
EE Room	40.1 C	AC Cable : 16 Sq.m.	Main Breaker : 30 A.	MCCB Feed : _____ A.		
		Wireway : 58.7 C	MDB / LC : 39.7 C	_____ C		

Comment : _____

Inspection By : _____

(Bunharn Libnoy)
Project Engineer

Date : ____/____/____

SMARTER ENERGY SOLUTION

Preventive Maintenance Solar System



Item	Solar System Inspection	Inspection		Remark
1	Clean the Solar panel (Use clean water) ทำความสะอาดแผงโซลาร์เซลล์ (ใช้น้ำสะอาด)	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
2	Check to see if the solar panel's condition ตรวจสอบการแตกร้าวของแผงโซลาร์เซลล์	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> 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 , สีโรครัน PU , แผ่นซีทากันน้ำ)	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
4	Inspect the mounting parts of the solar cell. ตรวจสอบสภาพโครงสร้างทั้งหมด เพื่อตัว PV, Mounting และอุปกรณ์ประกอบอื่นๆ ไม่หลวม	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
5	Inspect the condition of all cables to make sure The cables does not sag down to the roof. ตรวจสอบสภาพของสายทั้งหมดเพื่อให้แน่ใจว่า สายไม่หย่อนลงไปที่หลังคา	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
6	Inspect the tightness of the wire terminals. ตรวจสอบความแน่นของขั้วสายไฟ			
6.1	-AC - Grid in Inverter	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
6.2	-Back - up in Inverter (Specific model Hybrid)	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
6.3	-Battery (Specific model Hybrid)	<input type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
6.4	-AC Breaker	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
6.5	-DC Breaker	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
6.6	-Fuse Holder	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
6.7	-Surge Protection	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
6.8	- Smarter Meter & CT (Current Transformer)	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
7	Check whether the SISO Switch is defective ตรวจสอบ SISO Switch ว่าชำรุดหรือไม่	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
8	Inspect for malfunctions of the inverter and other related electrical equipment. ตรวจสอบความผิดปกติของอินเวอร์เตอร์และอุปกรณ์ไฟฟ้าอื่นๆ ที่เกี่ยวข้อง	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
9	Inspect heat of the solar panel whether there is an abnormal heat point or not (checked by using a thermal camera) การตรวจสอบความร้อนของแผงโซลาร์เซลล์ว่ามีจุดความร้อนผิดปกติหรือไม่ (ตรวจสอบโดยใช้กล้องถ่ายภาพความร้อน)	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	

Comment :

Inspection By : _____

(Bunharn Libnoy)
Project Engineer

Date : ____ / ____ / ____