

SMARTER ENERGY SOLUTION

Preventive Maintenance Solar System



Customer Name : Paul Lemon Maintenance : MA Date : 2 December 2024

Solar Panel				Inverter		
Brand	Model	Capacity	Install	Brand	Model	S/N
<u>Eastlux</u>	<u>EL-450019-60H</u>	<u>Kwp.</u>	<u>28</u> Panels	<u>Solis</u>	<u>SG-GR3PA0K</u>	<u>109906021B190368</u>

Before Preventive Maintenance Solar System									
Solar Panels	Operating Voltage / Current				Time	Inspection	Remark		
String 1	Panels	Voc <u>580.8</u>	Vdc	Vmp <u>422.0</u>	Vdc	Isc <u>9.66</u> A.	<u>14:00</u>	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Not Pass	
String 2	Panels	Voc <u>434.3</u>	Vdc	Vmp <u>317.9</u>	Vdc	Isc <u>8.87</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>609.2</u>	Vdc	Vmp <u>520.8</u>	Vdc	Isc <u>6.33</u> A.	<u>14:49</u>	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Not Pass	
String 2	Panels	Voc <u>448.9</u>	Vdc	Vmp <u>351.2</u>	Vdc	Isc <u>6.93</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			AC Line Voltage
	Phase L1 to Grd :	<u>237.1</u> Vac	Phase L1 to Grd :	<u>237.6</u> Vac
	Phase L2 to Grd :	<u>235.9</u> Vac	Phase L2 to Grd :	<u>235.8</u> Vac
	Phase L3 to Grd :	<u>237.3</u> Vac	Phase L3 to Grd :	<u>236.9</u> Vac
	AC Line Current			AC Line Current
	Phase L1 to Grd :	<u>9.30</u> A	Phase L1 to Grd :	<u>9.2</u> A
	Phase L2 to Grd :	<u>1.80</u> A	Phase L2 to Grd :	<u>9.3</u> A
	Phase L3 to Grd :	<u>4.80</u> A	Phase L3 to Grd :	<u>9.4</u> A
	Phase L1 to Grd :		Phase L1 to Grd :	<u>9.76</u> A
Phase L2 to Grd :		Phase L2 to Grd :	<u>9.89</u> A	
Phase L3 to Grd :		Phase L3 to Grd :	<u>9.66</u> 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	49.0 C	Inside : 57.4 C	Outside : 49.9 C	Heatsync : 59.8 C		
AC Cabinet	41.0 C	MCB Breaker : 40 A.	RCCB Breaker : _____ A.	AC SPD : 3 Phase		
		43.1 C	_____ C	40.6 C		
		AC Cable : 6 Sq.m.	Smart Meter : 41.4 C	CT Ratio : 150 9 A.		
		AC Terminal : 40.3 C	3 Phase	Meter Ratio : 30 A.		
		String No.	DC Fuse	DC Breaker	DC SPD	MC4 Connector
DC Cabinet 1	43.4 C	String 1	49.9 C	49.0 C	48.6 C	39.9 C
			A.	Vdc A.	Vdc A.	
		String 2	47.3 C	46.6 C	44.3 C	39.9 C
			A.	Vdc A.	Vdc A.	
		String 3	_____ C	_____ C	_____ C	_____ C
			A.	Vdc A.	Vdc A.	
		String 4	_____ C	_____ C	_____ C	_____ C
			A.	Vdc A.	Vdc A.	
EE Room	42.6 C	AC Cable : 16 Sq.m.	Main Breaker : 100 A.	MCCB Feed : _____ A.		
		Wireway : 36.7 C	MDB / LC : 40.8 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 , แผ่นซีก้าป้องกันน้ำ)	<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 : ____ / ____ / ____