

SMARTER ENERGY SOLUTION

Preventive Maintenance Solar System



Customer Name : Kini V.1 - Philip

Maintenance : MA

Date : 9 November 2024

Solar Panel				Inverter		
Brand	Model	Capacity	Install	Brand	Model	S/N
<u>Eastlux</u>	<u>EL450M5-60H</u>	<u>Kwp.</u>	<u>14</u> Panels	<u>Solis</u>	<u>S9-GR3P10K</u>	<u>100906021B190351</u>

Before Preventive Maintenance Solar System

Solar Panels	Operating Voltage / Current				Time	Inspection		Remark
String 1	<u>7</u> Panels	Voc <u>248.8</u> Vdc	Vmp <u>205.9</u> Vdc	Isc <u>9.17</u> A.	<u>11:00</u>	☒ Pass	☐ Not Pass	
String 2	<u>2</u> Panels	Voc <u>248.5</u> Vdc	Vmp <u>206.9</u> Vdc	Isc <u>6.29</u> 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	<u>7</u> Panels	Voc <u>264.7</u> Vdc	Vmp <u>211.3</u> Vdc	Isc <u>7.54</u> A.	<u>11:40</u>	☒ Pass	☐ Not Pass	
String 2	<u>2</u> Panels	Voc <u>265.7</u> Vdc	Vmp <u>219.0</u> Vdc	Isc <u>7.46</u> 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

Device	Readings from Smarter Meter	Readings from Inverter Display	Field Measured Readings	Remark
Inverter	AC Line Voltage		AC Line Voltage	
	Phase L1 to Grd : <u>214.9</u> Vac	Phase L1 to Grd : <u>214.4</u> Vac	Phase L1 to Grd : <u>215.2</u> Vac	
	Phase L2 to Grd : <u>230.9</u> Vac	Phase L2 to Grd : <u>230.1</u> Vac	Phase L2 to Grd : <u>229.4</u> Vac	
	Phase L3 to Grd : <u>229.9</u> Vac	Phase L3 to Grd : <u>230.0</u> Vac	Phase L3 to Grd : <u>229.9</u> Vac	
	AC Line Current		AC Line Current	
	Phase L1 to Grd : <u>1.90</u> A	Phase L1 to Grd : <u>2.8</u> A	Phase L1 to Grd : <u>3.12</u> A	
	Phase L2 to Grd : <u>1.90</u> A	Phase L2 to Grd : <u>3.0</u> A	Phase L2 to Grd : <u>3.14</u> A	
	Phase L3 to Grd : <u>1.10</u> A	Phase L3 to Grd : <u>2.8</u> A	Phase L3 to Grd : <u>2.95</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	44.1 °C	Inside : 46.9 °C	Outside : 49.0 °C	Heatsync : 49.6 °C		
AC Cabinet	39.2 °C	MCB Breaker : 40 A.	RCCB Breaker : _____ A.	AC SPD : 3 Phase		
		39.5 °C	_____ C	39.5 °C		
		AC Cable : _____ Sq.m.	Smart Meter : 40.7 C	CT Ratio : 150 / 5 A.		
		AC Terminal : _____ C	3 Phase	Meter Ratio : 30 A.		
		String No.	DC Fuse	DC Breaker	DC SPD	MC4 Connector
DC Cabinet 1	39.4 °C	String 1	40.2 °C	40.3 °C	39.6 °C	40.2 °C
			A.	Vdc A.	Vdc A.	
		String 2	40.1 °C	41.6 °C	39.7 °C	39.4 °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	39.6 °C	AC Cable : 29 Sq.m.	Main Breaker : 79 A.	MCCB Feed : _____ A.		
		Wireway : 39.2 °C	MDB / LC : 39.7 °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) ทำความสะอาดแผงโซลาร์เซลล์ (ใช้น้ำสะอาด)	☒ Pass	☐ Not Pass	
2	Check to see if the solar panel's condition ตรวจสอบการแตกร้าวของแผงโซลาร์เซลล์	☒ 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 , สีอีพ็อกซี PU , แผ่นซีเมนต์กันน้ำ)	☒ 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. ตรวจสอบความผิดปกติของอินเวอร์เตอร์และอุปกรณ์ไฟฟ้าอื่นๆ ที่เกี่ยวข้อง	☒ Pass	☐ 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)	☒ Pass	☐ Not Pass	

Comment :

Inspection By : _____

(Bunharn Libnoy)
Project Engineer

Date : ____/____/____