

SMARTER ENERGY SOLUTION

Preventive Maintenance Solar System



Customer Name : Andamaya B1 Maintenance : MA Date : 17 October 2024

Solar Panel				Inverter		
Brand	Model	Capacity	Install	Brand	Model	S/N
<u>Exiom</u>	<u>EX480TC</u>	<u>20</u> Kwp.	<u>30</u> Panels	<u>Solis</u>	<u>SH-GR3P20K</u>	<u>18050B0238040023</u>

Before Preventive Maintenance Solar System

Solar Panels	Operating Voltage / Current				Time	Inspection		Remark
String 1	<u>10</u> Panels	Voc <u>392.9</u> Vdc	Vmp <u>340.4</u> Vdc	Isc <u>3.99</u> A.	<u>10:30</u>	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 2	<u>10</u> Panels	Voc <u>389.9</u> Vdc	Vmp <u>339.8</u> Vdc	Isc <u>2.11</u> A.	:	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 3	<u>10</u> Panels	Voc <u>391.7</u> Vdc	Vmp <u>339.6</u> Vdc	Isc <u>3.59</u> A.	:	<input checked="" 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	<u>10</u> Panels	Voc <u>389.0</u> Vdc	Vmp <u>330.9</u> Vdc	Isc <u>2.39</u> A.	<u>12:00</u>	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	<u>elwom</u>
String 2	<u>10</u> Panels	Voc <u>387.9</u> Vdc	Vmp <u>333.6</u> Vdc	Isc <u>2.92</u> A.	:	<input checked="" type="checkbox"/> Pass	<input type="checkbox"/> Not Pass	
String 3	<u>10</u> Panels	Voc <u>389.6</u> Vdc	Vmp <u>339.3</u> Vdc	Isc <u>2.33</u> A.	:	<input checked="" 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

Device	Readings from Smarter Meter	Readings from Inverter Display	Field Measured Readings	Remark
Inverter	AC Line Voltage			
	Phase L1 to Grd : <u>236.0</u> Vac	Phase L1 to Grd : <u>233.3</u> Vac	Phase L1 to Grd : <u>239.2</u> Vac	
	Phase L2 to Grd : <u>233.8</u> Vac	Phase L2 to Grd : <u>237.9</u> Vac	Phase L2 to Grd : <u>239.4</u> Vac	
	Phase L3 to Grd : <u>239.6</u> Vac	Phase L3 to Grd : <u>231.4</u> Vac	Phase L3 to Grd : <u>234.9</u> Vac	
	AC Line Current			
	Phase L1 to Grd : <u>4.40</u> A	Phase L1 to Grd : <u>4.6</u> A	Phase L1 to Grd : <u>4.93</u> A	
	Phase L2 to Grd : <u>4.40</u> A	Phase L2 to Grd : <u>4.7</u> A	Phase L2 to Grd : <u>4.79</u> A	
	Phase L3 to Grd : <u>4.40</u> A	Phase L3 to Grd : <u>4.7</u> A	Phase L3 to Grd : <u>4.67</u> A	

Comment : _____

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Preventive Maintenance Solar System



Item	Solar System Inspection	Inspection	Remark
1	Clean the Solar panel (Use clean water) ทำความสะอาดแผงโซลาร์ เซลล์ (ใช้น้ำสะอาด)	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Not Pass	
2	Check to see if the solar panel's condition ตรวจสอบการแตกร้าวของแผงโซลาร์ เซลล์	<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 , สิริโครน PU , แพนซีก้าป้องกันน้ำ)	<input checked="" type="checkbox"/> Pass <input type="checkbox"/> Not Pass	
4	Inspect the mounting parts of the solar cell. ตรวจสอบสภาพโครงสร้างทั้งหมด เพื่อดูว่า 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. ตรวจสอบความผิดปกติของอินเวอร์เตอร์และอุปกรณ์ไฟฟ้าอื่น ๆ 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 : ____/____/____

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	44.4 C	Inside : 47.8 C	Outside : 45.3 C	Heatsync : 54.3 C		
AC Cabinet	35.7 C	MCB Breaker : 40 A.	RCCB Breaker : _____ A.	AC SPD : 3 Phase		
		AC Cable : 36.3 C	Smart Meter : 38.5 C	CT Ratio : 150 9 A.		
		AC Terminal : 37.0 C	3 Phase Meter Ratio : 30 A.			
		String No.	DC Fuse	DC Breaker	DC SPD	MC4 Connector
DC Cabinet 1	46.9 C	String 1	39.2 C	38.2 C	36.9 C	38.5 C
		String 2	36.9 C	39.2 C	36.9 C	38.7 C
		String 3	36.9 C	37.1 C	36.2 C	38.5 C
		String 4	_____ C	_____ C	_____ C	_____ C
EE Room	37.6 C	AC Cable : 25 Sq.m.	Main Breaker : 63 A.	MCCB Feed : _____ A.		
		Wireway : 38.5 C	MDB / LC : 38.7 C	_____ C		

Comment : _____

Inspection By : _____
 (Bunharn Libnoy)
 Project Engineer
 Date : ____/____/____