

SMARTER ENERGY SOLUTION

Preventive Maintenance Solar System



Customer Name :

WE-EF Lighting Co., Ltd.

Maintenance :

2

Date :

10-8-2569

Solar Panel				Inverter		
Brand	Model	Capacity	Install	Brand	Model	S/N
Sonnex	SNX-D78HND-b30m	136.08 Kwp.	216 Panels	Sblis	SB-60110K	1814061228010007

Before Preventive Maintenance Solar System

Solar Panels	Operating Voltage / Current				Time	Inspection		Remark
String 1	16 Panels	Voc 705	Vdc Vmp 828	Vdc Isc 7.56 A.	10:50	☒ Pass	☐ Not Pass	
String 2	16 Panels	Voc 704	Vdc Vmp 829	Vdc Isc 8.01 A.	10:50	☒ Pass	☐ Not Pass	
String 3	16 Panels	Voc 681	Vdc Vmp 831	Vdc Isc 7.25 A.	10:50	☒ Pass	☐ Not Pass	
String 4	16 Panels	Voc 658	Vdc Vmp 783	Vdc Isc 6.97 A.	10:50	☒ Pass	☐ Not Pass	
String 5	16 Panels	Voc 665	Vdc Vmp 772	Vdc Isc 7.34 A.	10:50	☒ Pass	☐ Not Pass	
String 6	16 Panels	Voc 669	Vdc Vmp 824	Vdc Isc 8.27 A.	10:50	☒ Pass	☐ Not Pass	
String 7	16 Panels	Voc 708	Vdc Vmp 827	Vdc Isc 8.90 A.	10:51	☒ Pass	☐ Not Pass	
String 8	- Panels	Voc -	Vdc Vmp -	Vdc Isc - A.	-	☐ Pass	☐ Not Pass	
String 9	16 Panels	Voc 703	Vdc Vmp 832	Vdc Isc 9.43 A.	10:51	☒ Pass	☐ Not Pass	
String 10	- Panels	Voc -	Vdc Vmp -	Vdc Isc - A.	-	☐ Pass	☐ Not Pass	
String 11	16 Panels	Voc 696	Vdc Vmp 821	Vdc Isc 9.63 A.	10:51	☒ Pass	☐ Not Pass	
String 12	- Panels	Voc -	Vdc Vmp -	Vdc Isc - A.	-	☐ Pass	☐ Not Pass	
String 13	16 Panels	Voc 704	Vdc Vmp 824	Vdc Isc 9.26 A.	10:51	☒ Pass	☐ Not Pass	
String 14	- Panels	Voc -	Vdc Vmp -	Vdc Isc - A.	-	☐ Pass	☐ Not Pass	
String 15	16 Panels	Voc 700	Vdc Vmp 825	Vdc Isc 9.35 A.	10:51	☒ Pass	☐ Not Pass	
String 16	- Panels	Voc -	Vdc Vmp -	Vdc Isc - A.	-	☐ Pass	☐ Not Pass	
String 17	16 Panels	Voc 699	Vdc Vmp 830	Vdc Isc 8.62 A.	10:52	☒ Pass	☐ Not Pass	
String 18	- Panels	Voc -	Vdc Vmp -	Vdc Isc - A.	-	☐ Pass	☐ Not Pass	
String 19	12 Panels	Voc 525.3	Vdc Vmp 619.8	Vdc Isc 8.91 A.	10:52	☒ Pass	☐ Not Pass	
String 20	12 Panels	Voc 525.1	Vdc Vmp 622	Vdc Isc 9.52 A.	10:52	☒ Pass	☐ Not Pass	

After Preventive Maintenance Solar System

Solar Panels	Operating Voltage / Current				Time	Inspection		Remark
String 1	16 Panels	Voc 677	Vdc Vmp 832	Vdc Isc - A.	13:30	☐ Pass	☐ Not Pass	
String 2	16 Panels	Voc 683	Vdc Vmp 828	Vdc Isc - A.	13:30	☐ Pass	☐ Not Pass	
String 3	16 Panels	Voc 659	Vdc Vmp 825	Vdc Isc - A.	13:31	☐ Pass	☐ Not Pass	
String 4	16 Panels	Voc 663	Vdc Vmp 825	Vdc Isc - A.	13:31	☐ Pass	☐ Not Pass	
String 5	16 Panels	Voc 662	Vdc Vmp 779	Vdc Isc - A.	13:31	☐ Pass	☐ Not Pass	
String 6	16 Panels	Voc 658	Vdc Vmp 825	Vdc Isc - A.	13:31	☐ Pass	☐ Not Pass	
String 7	16 Panels	Voc 708	Vdc Vmp 823	Vdc Isc - A.	13:32	☐ Pass	☐ Not Pass	
String 8	- Panels	Voc -	Vdc Vmp -	Vdc Isc - A.	-	☐ Pass	☐ Not Pass	
String 9	16 Panels	Voc 690	Vdc Vmp 822	Vdc Isc - A.	13:32	☐ Pass	☐ Not Pass	
String 10	- Panels	Voc -	Vdc Vmp -	Vdc Isc - A.	-	☐ Pass	☐ Not Pass	
String 11	16 Panels	Voc 701	Vdc Vmp 831	Vdc Isc - A.	13:32	☐ Pass	☐ Not Pass	
String 12	- Panels	Voc -	Vdc Vmp -	Vdc Isc - A.	-	☐ Pass	☐ Not Pass	
String 13	16 Panels	Voc 706	Vdc Vmp 828	Vdc Isc - A.	13:33	☐ Pass	☐ Not Pass	
String 14	- Panels	Voc -	Vdc Vmp -	Vdc Isc - A.	-	☐ Pass	☐ Not Pass	
String 15	16 Panels	Voc 714	Vdc Vmp 824	Vdc Isc - A.	13:33	☐ Pass	☐ Not Pass	
String 16	- Panels	Voc -	Vdc Vmp -	Vdc Isc - A.	-	☐ Pass	☐ Not Pass	
String 17	16 Panels	Voc 700	Vdc Vmp 821	Vdc Isc - A.	13:33	☐ Pass	☐ Not Pass	
String 18	- Panels	Voc -	Vdc Vmp -	Vdc Isc - A.	-	☐ Pass	☐ Not Pass	
String 19	12 Panels	Voc 507.9	Vdc Vmp 621	Vdc Isc - A.	13:33	☐ Pass	☐ Not Pass	
String 20	12 Panels	Voc 504.6	Vdc Vmp 617.9	Vdc Isc - A.	13:33	☐ Pass	☐ Not Pass	

Comment :

SMARTER ENERGY SOLUTION

Electrical Room Inspection



Customer Name :		WE-EF Lighting Co., Ltd.			Date :		10-8-2569	
Solar Panel					Inverter			
Brand	Model	Capacity	Install	Brand	Model	S/N		
Gonnex	SNX-D78HND630P136.08	Kwp.	216 Panels	Solis	SS-6C 110K	18140612280100007		

Device	Ambient Temperature	Temperature				Remark	
Inverter	39.9 °C	Inside : 40.2 °C	Outside : 47.3 °C	Heatsync : 42.7 °C			
AC Cabinet	32.6 °C	MCB Breaker : 200 A.	RCCB Breaker : - A.	AC SPD : 3 Phase			
		32.2 °C	- °C	32.5 °C			
		AC Cable : 295 Sq.m.	Smart Meter : - °C	CT Ratio : - / - A.			
		AC Terminal : 32.2 °C	Phase Meter Ratio : - A.				
		String No.	DC Fuse	DC Breaker	DC SPD	MC4 Connector	
DC Cabinet 1	31.9 °C	String 1	35.0 °C	33.1 °C	33.0 °C	36.7 °C	
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.		
		String 2	33.3 °C	33.4 °C	33.4 °C	34.9 °C	
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.		
		String 3	33.4 °C	33.0 °C	33.0 °C	34.2 °C	
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.		
		String 4	32.3 °C	32.6 °C	32.6 °C	34.2 °C	
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.		
DC Cabinet 2	31.8 °C	String 5	32.7 °C	32.7 °C	32.7 °C	35.5 °C	
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.		
		String 6	32.6 °C	32.6 °C	32.6 °C	34.1 °C	
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.		
		String 7	32.7 °C	32.7 °C	32.7 °C	35.5 °C	
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.		
		String 8	- °C	- °C	- °C	- °C	
			- A.	- Vdc - A.	1000 Vdc 20 A.		
DC Cabinet 3	- °C	String 9	33.0 °C	33.1 °C	33.1 °C	34.5 °C	
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.		
		String 10	- °C	- °C	- °C	- °C	
			- A.	- Vdc - A.	1000 Vdc 20 A.		
		String 11	33.1 °C	36.6 °C	36.6 °C	35.0 °C	
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.		
		String 12	- °C	- °C	- °C	- °C	
			- A.	- Vdc - A.	- Vdc - A.		
EE Room	33.0 °C	AC Cable : 240 Sq.m.	Main Breaker : 400 A.	MCCB Feed : 400 A.			
		Wireway : 33.5 °C	MDB / LC : 33.1 °C	34.2 °C			

Comment :

Inspection By :

Binorn Libroy (Cum)
 (Binhorn Libroy)
 Project Engineer
 Date : 10, 8, 2569

SMARTER ENERGY SOLUTION

Electrical Room Inspection



Customer Name : <u>NE-EE Lighting Co, Ltd.</u>				Date : <u>10-8-2569</u>		
Solar Panel				Inverter		
Brand	Model	Capacity	Install	Brand	Model	
		Kwp.	Panels			
					S/N	
Device	Ambient Temperature	Temperature				Remark
Inverter	°C	Inside : °C	Outside : °C	Heatsync : °C		
AC Cabinet	°C	MCB Breaker : °C	RCCB Breaker : °C	AC SPD : °C		
		AC Cable : Sq.m.	Smart Meter : °C	CT Ratio : / A.		
		AC Terminal : °C	Phase Meter Ratio : A.			
		String No.	DC Fuse	DC Breaker	DC SPD	MC4 Connector
DC Cabinet 1	31.9 °C	String 13	32.9 °C	32.9 °C	33.0 °C	34.8 °C
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.	
		String 15	32.8 °C	32.8 °C	32.8 °C	35.4 °C
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.	
DC Cabinet 2	31.8 °C	String 17	34.3 °C	34.3 °C	34.3 °C	36.6 °C
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.	
		String 19	32.8 °C	32.8 °C	32.8 °C	34.8 °C
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.	
DC Cabinet 3	°C	String 20	32.7 °C	33.9 °C	33.9 °C	34.8 °C
			32 A.	1000 Vdc 20 A.	1000 Vdc 20 A.	
		String 6	°C	°C	°C	°C
			A.	Vdc A.	Vdc A.	
DC Cabinet 3	°C	String 7	°C	°C	°C	°C
			A.	Vdc A.	Vdc A.	
		String 8	°C	°C	°C	°C
			A.	Vdc A.	Vdc A.	
EE Room	°C	String 9	°C	°C	°C	°C
			A.	Vdc A.	Vdc A.	
		String 10	°C	°C	°C	°C
			A.	Vdc A.	Vdc A.	
EE Room	°C	String 11	°C	°C	°C	°C
			A.	Vdc A.	Vdc A.	
EE Room	°C	String 12	°C	°C	°C	°C
			A.	Vdc A.	Vdc A.	
EE Room	°C	AC Cable : Sq.m.	Main Breaker : A.	MCCB Feed : A.		
EE Room	°C	Wireway : °C	MDB / LC : °C			

Comment :

Inspection By :

Bunharn Libnoy
 (Bunharn Libnoy)
 Project Engineer
 Date : 10 / 8 / 2569

SMARTER ENERGY SOLUTION

Preventive Maintenance Solar System



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 : - Vac	Phase L1 to Grd : 224.7 Vac	Phase L1 to Grd : 216.8 Vac	-
	Phase L2 to Grd : - Vac	Phase L2 to Grd : 230.3 Vac	Phase L2 to Grd : 224.4 Vac	-
	Phase L3 to Grd : - Vac	Phase L3 to Grd : 223.4 Vac	Phase L3 to Grd : 221.2 Vac	-
	AC Line Current		AC Line Current	ไม่สามารถวัดค่าได้
	Phase L1 to Grd : - A	Phase L1 to Grd : 67.6 A	Phase L1 to Grd : 6.97 A	ไม่สามารถวัดค่าได้
	Phase L2 to Grd : - A	Phase L2 to Grd : 67.8 A	Phase L2 to Grd : 0.81 A	ไม่สามารถวัดค่าได้
	Phase L3 to Grd : - A	Phase L3 to Grd : 69.8 A	Phase L3 to Grd : 0.83 A	ไม่สามารถวัดค่าได้

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 , สิริโครน PU , แผ่นซีก้าป้องกันน้ำ)	☒ 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	ไม่มี
6.3	- Battery (Specific model Hybrid)	☐ Pass	☐ Not Pass	ไม่มี
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	ไม่มี
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 :

บุณชน ลิขย (หนน)

(Bunharn Libnoy)
Project Engineer

Date : 10, 8, 2569

SMARTER ENERGY SOLUTION

Inverter Setting Inspection



Customer : WE-EE Lighting Co Ltd Inverter : Solis / SD-BC110K No. : 01 Password : 0010

Item	Manu	Select 1	Select 2	Select 3	Select 4	Remark
1	Inverter Address	☒ 01	☐ 02	☐ 03	☐ _____	
2	Select Standard	☐ PEA	☒ MEA	☐ _____	☐ _____	
3	Grid ON/OFF	☒ ON	☐ OFF	☐ _____	☐ _____	
4	24Hrs. Switch	☒ Enable	☐ Disable	☐ _____	☐ _____	
5	Internal EPM Set > Mode Select	☐ Meter In Grid	☐ Meter In Load	☐ Consumption	☐ NO Meter	OFF
6	Internal EPM Set > Backflow Power	☒ 0	☐ +100	☐ + _____	☐ - _____	
7	Internal EPM Set > Fail Safe ON/OFF	☐ ON	☒ OFF	☐ _____	☐ _____	
8	Internal EPM Set > Backflow Work Mode	☐ Mode 1	☐ Mode 2	☐ _____	☐ _____	12/2
9	HMI Update	☒ YES	☐ NO	☐ _____	☐ _____	
10	DSP Update	☒ YES	☐ NO	☐ _____	☐ _____	
11	External EPM Set	☒ 5G-EPM	☐ Others-EPM	☐ _____	☐ _____	

Inverter : Solis / _____ No. : _____ Password : 0010

Item	Manu	Select 1	Select 2	Select 3	Select 4	Remark
1	Inverter Address	☐ 01	☐ 02	☐ 03	☐ _____	
2	Select Standard	☐ PEA	☐ MEA	☐ _____	☐ _____	
3	Grid ON/OFF	☐ ON	☐ OFF	☐ _____	☐ _____	
4	24Hrs. Switch	☐ Enable	☐ Disable	☐ _____	☐ _____	
5	Internal EPM Set > Mode Select	☐ Meter In Grid	☐ Meter In Load	☐ Consumption	☐ NO Meter	
6	Internal EPM Set > Backflow Power	☐ 0	☐ +100	☐ + _____	☐ - _____	
7	Internal EPM Set > Fail Safe ON/OFF	☐ ON	☐ OFF	☐ _____	☐ _____	
8	Internal EPM Set > Backflow Work Mode	☐ Mode 1	☐ Mode 2	☐ _____	☐ _____	
9	HMI Update	☐ YES	☐ NO	☐ _____	☐ _____	
10	DSP Update	☐ YES	☐ NO	☐ _____	☐ _____	
11	External EPM Set	☐ 5G-EPM	☐ Others-EPM	☐ _____	☐ _____	

Inspection By :

Bunharn Libnoy (Name)

(Bunharn Libnoy)
Project Engineer

Date : 10 / 8 / 2569