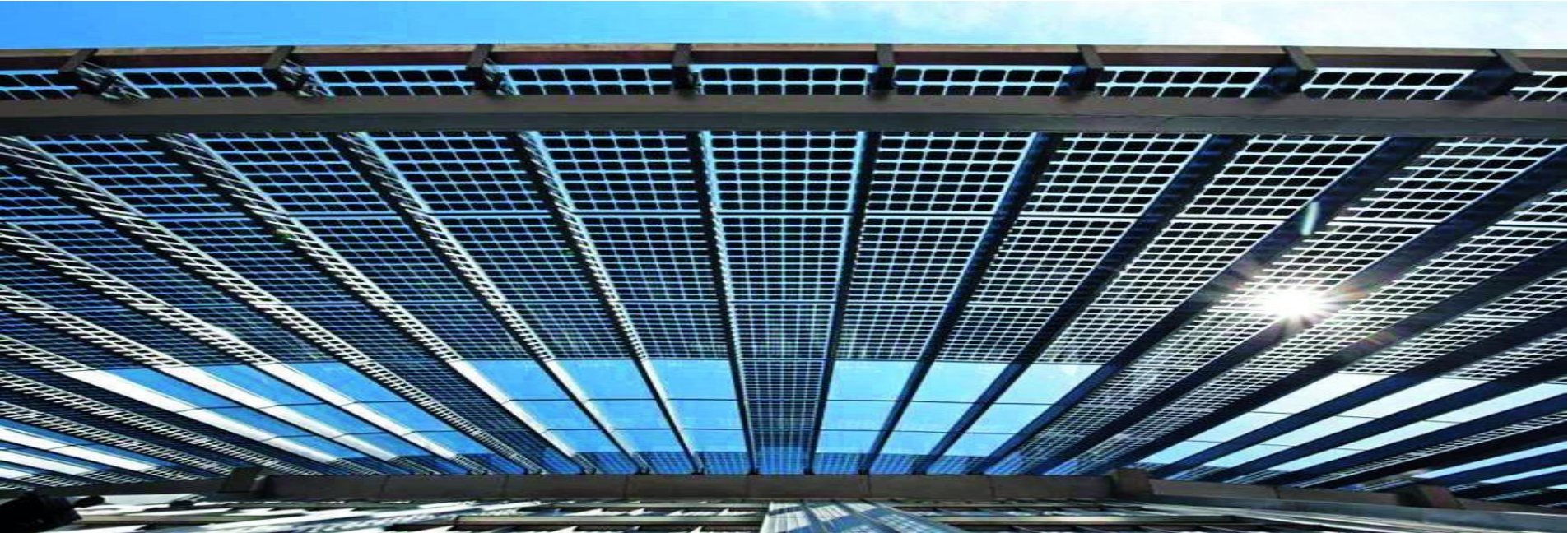


SolarArchitech™

SUNSTAR™ Solar System



Singapore's No. 1 brand for Reliable Solar Power for Homes & Business

G 8 - E n e r g y . c o m



FAQ (SUNSTAR Solar System)

1. How your Solar System works with SP Grid?

- ☀️ **Daytime:** Solar energy is directly consumed in your home and household appliances. Any excess is exported to the SP Grid and will be credited to your bill.
- 🌙 **Nighttime:** The system is on standby therefore electricity is imported from the SP Grid which will reflect in your bill.

2. How will the solar panels affect my roof?

Cooling effect.

Solar panels act as a **shade layer** over your roof, reducing direct sunlight hitting the surface and helps to **lower roof temperature**, which can lead to a **cooler interior**, especially during hot days.

3. What is the lifespan of a solar PV system?

At least 25 years.

The typical lifespan of solar PV systems is at least 25 years. Systems that lasted for 40 years is not rare. Our solar panels come with a 25-year warranty.

4. Will my system still produce power when it's cloudy or raining?

Yes.

The system will still produce power during cloudy and rainy days. However, the generation will be lower than clear, sunny days.

5. How do I keep track of the energy generated by the solar power system?

Through monitoring App.

We will download a monitoring App that can be accessed via a smartphone app or website. You will be able to track the daily performance of your system.

6. How do I maintain my solar PV system?

Minimal maintenance.

Solar PV systems typically require minimal maintenance as there are no moving parts in the system. The most important thing is to keep the panels clean.

7. How long does the whole installation usually take?

7-10days.

On average, it takes 7-10 working days for the on-site installation. Following that, we will apply for testing & commissioning from the utility grid. This process includes electrical design, permitting and inspections.

Our Solar Architect design helps to cool your home by extending your rooftop for additional shade. It's a smart way to reduce heat, enhance comfort and adds value to your property.

Solar System Installation Guide

Introduction

Solar energy presents a reliable, sustainable, and cost-efficient solution to reduce electricity costs and lower carbon emissions. With Singapore's tropical climate and high levels of sunlight throughout the year, residential/commercial solar installations are both practical and beneficial. This guide provides a clear overview of the key steps, considerations, and benefits for installing a solar photovoltaic (PV) system in Singapore.

Step 1: Assessing Your Roof's Conditions

- **Sunlight Exposure and Angle:** Your roof should get plenty of sunlight and ideally face south with a slight tilt to get the best solar power.
- **Roof Structural Condition:** The roof needs to be strong and in good condition to safely hold the solar panels and their mounting parts.

Step 2: Installation Process

The installation process generally involves the following steps:

1. **Scaffolding (if required):** Set up scaffolding to ensure safety during installation.
2. **Solar Panel Delivery:** Deliver the solar panels and other equipment to your site.
3. **Attach Mounting Frames:** Secure mounting frames to your roof.
4. **Install Solar Panels:** Attach the solar panels to the mounting frames and connect them to the solar inverter.
5. **Set Up Wiring:** Connect the solar panels to your home's electrical system.
6. **Testing and Quality Assurance:** Conduct thorough testing to ensure the system is functioning correctly.

Step 3: Commissioning the System

Once the installation is complete, a Licensed Electrical Worker (LEW) will commission the system. The LEW will handle tasks such as applying for necessary electrical licenses and assessing the electrical connection requirements.

Step 4: Selling Excess Electricity

If you generate more electricity than you use, you can sell the excess back to the grid. There are two main schemes for this:

- **Simplified Credit Treatment (SCT):** Non-contestable consumers can register with SP Services and be paid at the prevailing tariff minus grid charges.
- **Enhanced Central Intermediary Scheme (ECIS):** This scheme simplifies the registration process for contestable consumers with SP Services.

How to calculate my potential savings from solar system

Step 1: Check Your Current Electricity Usage

Look at your electricity bills to find out your average monthly electricity consumption in kilowatt-hours (kWh).

Step 2: Estimate Solar Panel Output

The amount of electricity your solar panels can generate depends on:

- **Panel Efficiency:** Higher efficiency panels produce more electricity.
- **Sunlight Hours:** Singapore receives about 4-5 peak sunlight hours per day on average.
- **System Size:** The total capacity of your solar panel system, usually measured in kilowatts (kWp).
- **Efficiency Factor:** Accounts for losses due to shading, dust, and system inefficiencies, typically around 80% to 85%.

You can use the formula:

Monthly Energy Production (kWh) = System Size (kW) × Sunlight Hours per Day × 30 Days × Efficiency Factor

Step 3: Calculate Potential Savings

1. **Estimate Monthly Solar Production:** Use the formula above.
2. **Determine Cost per kWh:** Check your electricity bill for the rate you pay per kWh.
3. **Calculate Savings:** Multiply the monthly solar generated by the cost per kWh.

For example:

- **System Size:** 30 kWp, 50 panels (600W)
- **Sunlight Hours:** 4.5 hrs/day
- **Efficiency Factor:** 80%
- **Electricity Rate:** \$0.27/kWh

Monthly Energy Production: $30\text{kW} \times 4.5\text{hr} \times 30\text{d} \times 80\% = 3,240\text{ kWh}$

Monthly Savings: $3240\text{ kWh} \times \$0.27 = \875

Return on Investment (ROI)

Our solar systems are designed for optimal efficiency, with ROI within 3 to 5 years. Actual payback periods may vary based on system size, roof conditions, and electricity consumption.

Conclusion








Investing in solar system in Singapore delivers strong financial returns while supporting environmental sustainability. By working with qualified professionals and following industry best practices, you can ensure a seamless installation and long-term performance.

COMET

2U Mono-Glass Module

640W-670W

Technical Features:

-  Partial Shading Optimisation
-  Better Temperature Coefficient
-  High Temperature Restriction
-  Micro-crack Resistance
-  Higher Power
-  Lower BOS
-  More Aesthetic Values



red dot winner 2023



Product Warranty
Extendable to 25 years*



Performance Warranty



Warranty partner

Munich RE 

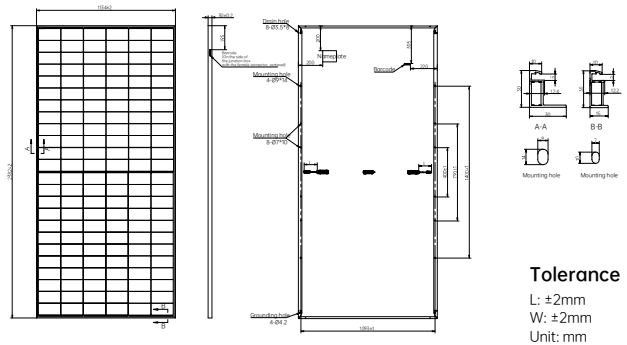
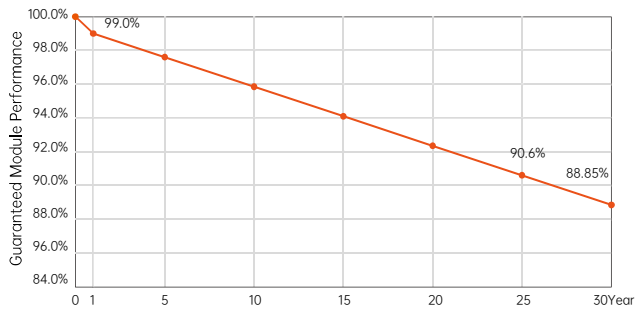
670W
Output

24.8%
Efficiency

≤1%
First-year Degradation

≤0.35%
Annual Degradation from Year 2-30

30-year Linear Performance Warranty



Electrical Characteristics (STC: AM1.5 1000W/m ² 25°C NOCT: AM1.5 800W/m ² 20°C 1m/s)														Power Tolerance:0~ + 3%	
Module Type	AIKO-G640-MCH72Mw		AIKO-G645-MCH72Mw		AIKO-G650-MCH72Mw		AIKO-G655-MCH72Mw		AIKO-G660-MCH72Mw		AIKO-G665-MCH72Mw		AIKO-G670-MCH72Mw		
Test Conditions	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	STC	NOCT	
P _{max} [W]	640	482	645	486	650	490	655	493	660	497	665	501	670	505	
V _{oc} [V]	54.20	51.18	54.30	51.28	54.40	51.37	54.50	51.47	54.60	51.56	54.70	51.66	54.80	51.75	
V _{mp} [V]	44.90	42.40	45.00	42.50	45.10	42.59	45.20	42.69	45.30	42.78	45.40	42.87	45.50	42.97	
I _{sc} [A]	15.00	12.13	15.06	12.18	15.12	12.23	15.18	12.28	15.24	12.32	15.30	12.37	15.36	12.42	
I _{mp} [A]	14.26	11.38	14.34	11.44	14.42	11.51	14.50	11.57	14.57	11.63	14.65	11.69	14.73	11.76	
Module Efficiency	23.7%		23.9%		24.1%		24.2%		24.4%		24.6%		24.8%		

Product Specification

Cell Type	N-Type ABC
Glass	3.2mm tempered glass
Frame	Anodized aluminum
Cable	4mm ² (IEC) 12AWG(UL) +400mm, -200mm/±1400mm or Customized Length
No. of Cells	144(6*24)
Junction Box	IP68, 3 bypass diodes
Connector	MC4 Compatible/Original MC4
Weight	28.1kg±3%
Dimension	2382*1134*30mm
Package Detail	36pcs per pallet / 144pcs per 20'GP / 720pcs per 40'HC

Temperature Ratings (STC)

Temperature Coefficient of I _{sc}	+ 0.05%/ °C
Temperature Coefficient of V _{oc}	- 0.22%/ °C
Temperature Coefficient of P _{max}	- 0.26%/ °C

Installation Guide

Operation Temperature	-40°C - +85°C
Maximum Series Fuse Rating	25A
Protection Class	Class II
V _{oc} and I _{sc} Tolerance	±3%
Maximum System Voltage	DC1500V
Maximum Static Loading	Front 5400Pa Back 2400Pa
Hail Test	25 mm diameter hail at 23 m/s
Fire Rating	IEC Class C



www.aikosolar.com
marketing@aikosolar.com

*AIKO reserves right to update the specification without notice
V5.1_202412_DsDr_EN

SG36/40/50CX-P2

Multi-MPPT String Inverter for 1000 Vdc System



☀️ HIGH YIELD

- DC 15A current input, compatible with over 500W+ PV module
- Dynamic shading optimization mode
- Built-in PID recovery function

💡 SMART O&M

- Key component diagnosis and protection
- Smart IV Curve Diagnosis
- Grid fault record function, easy for remote O&M

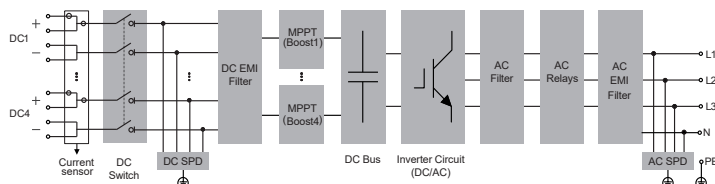
👛 LOWER INVESTMENT

- Easy to handle thanks to 34% weight reduced
- Plug and Play with Buckle Design

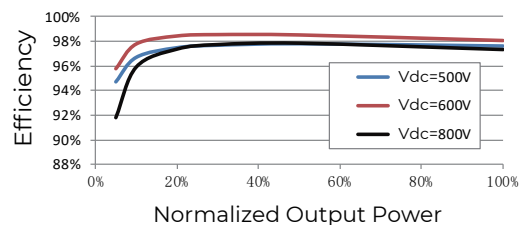
🛡️ PROVEN SAFETY

- IP66 protection and C5 Anti-corrosion
- DC Type I+II SPD, AC Type II SPD
- Support AFCI 2.0 function

CIRCUIT DIAGRAM



EFFICIENCY CURVE (SG50CX-P2)



Type designation	SG36CX-P2	SG40CX-P2	SG50CX-P2
Input (DC)			
Recommended max. PV input power	50.4 kWp	56 kWp	70 kWp
Max. PV input voltage*	1100 V		
Min. PV input voltage / Startup input voltage	160 V / 200 V		
Rated PV input voltage	600 V		
MPPT voltage range**	160 V - 1000 V		
No. of independent MPP inputs	4		
No. of PV strings per MPPT	2		
Max. PV input current	120 A (30 A * 4)		
Max. DC short-circuit current	160 A (40 A * 4)		
Max. current for DC connector	30 A		
Output (AC)			
Rated AC output power	36 kW	40 kW	50 kW
Max. AC output apparent power	40 kVA	44 kVA	55 kVA
Max. AC output current	60.2 A	66.9 A	83.6 A
Rated AC output current(at 230V)	52.17 A	58 A	72.5 A
Rated AC voltage	3 / N / PE, 220 / 380 V, 230 / 400 V		
AC voltage range	312 V - 480 V		
Rated grid frequency	50 Hz / 60 Hz		
Grid frequency range	45 Hz - 55 Hz / 55 Hz - 65 Hz		
Harmonic (THD)	< 3 % (at rated power)		
Power factor at rated power / Adjustable power factor	> 0.99 / 0.8 leading - 0.8 lagging		
Feed-in phases / AC connection	3 / 3-N-PE		
Efficiency			
Max. efficiency / European efficiency	98.5 % / 98.3 %		
Protection			
Grid monitoring	Yes		
DC reverse polarity protection	Yes		
AC short-circuit protection	Yes		
Leakage current protection	Yes		
Surge protection	DC Type I+II / AC Type II		
Ground fault monitoring	Yes		
DC switch	Yes		
PV string current monitoring	Yes		
Arc fault circuit interrupter (AFCI)	Yes		
PID recovery function	Yes		
Optimizer compatibility ***	Optional		
General data			
Dimensions (W * H * D)	645 mm * 575 mm * 245 mm		
Weight	40 kg		41 kg
Mounting method	Wall-mounting bracket		
Topology	Transformerless		
Degree of protection	IP66		
Night power consumption	< 7 W		
Corrosion	C5		
Operating ambient temperature range	-30 °C to 60 °C		
Allowable relative humidity range (non-condensing)	0 % - 100 %		
Cooling method	Smart forced air cooling		
Max. operating altitude	4000 m		
Display	LED, Bluetooth+APP		
Communication	RS485 / Optional: WLAN, Ethernet		
DC connection type	Evo2 (Max. 6 mm ²)		
AC connection type	OT terminal (16-35 mm ²)		OT or DT terminal (35-50 mm ²)
AC cable specification	Outside diameter 18 mm - 38 mm		
Grid compliance	IEC 62109, IEC 61727, IEC 62116, VDE-AR-N 4105:2018, IEC 61000-6-3, EN 50549-1, CEI 0-21 2019, CEI0-16 2019, VDE 0126-1-1/A1 VFR 2019, UTE C15-712-1:2013, UNE 206007-1/RD 1699, UNE 217002, G99, IEC 63027		
Grid support	Q at night function, LVRT, HVRT, active & reactive power control and power ramp rate control		

* Input voltage exceeding the MPPT operating voltage range triggers inverter protection

** Please refer to the user manual for the full load MPPT voltage range

*** For optimizer compatibility, please consult Sungrow before placing an order

Dear Home Owner,

“Solar Powering your house is an invaluable investment to a greener future”

It is with great pleasure that I am writing to express my gratitude for selecting our company for your upcoming solar energy generation project. We are honored to have been chosen as your partner in this endeavor and are committed to delivering the highest quality service and reliability with proven and dependable range of **SUNSTAR** Advanced Home Solar system.

G8 stands for Engineering Excellence, Service and Innovation in Green Building Technologies



Design Integration & Engineering Excellence Solar Energy Systems to the environment

At our company, we believe that renewable energy is the future, and we are passionate about helping our clients to save cost and make the switch to sustainable and cost-effective solar energy solutions. With many years of experience in the industry and a team of dedicated professionals, we are confident that we have the skills and expertise necessary to meet and exceed your expectations.

Highlights of the SUNSTAR system

- 1) **Highest Efficiency & Output Solar Panels: High Performance N Type, Tier 1 Panel**
- 2) **Industry Top Rated Inverter System to enable reliable and efficient delivery**
- 3) **20 Year Linear Power Warranty from Solar Panels**
- 4) **Reliable Service & Back Up Support from Industry Professionals**

G8 has presently over 600MW of installed power transmission and our clients includes Singapore Power, Port of Singapore Authority and Tenaga Nasional amongst numerous residential home projects.

Thank you once again for entrusting us with your project, and we look forward to working with you to create a brighter more sustainable future with a lasting value to your home.

Sincerely,

Gerald Tan

Managing Director

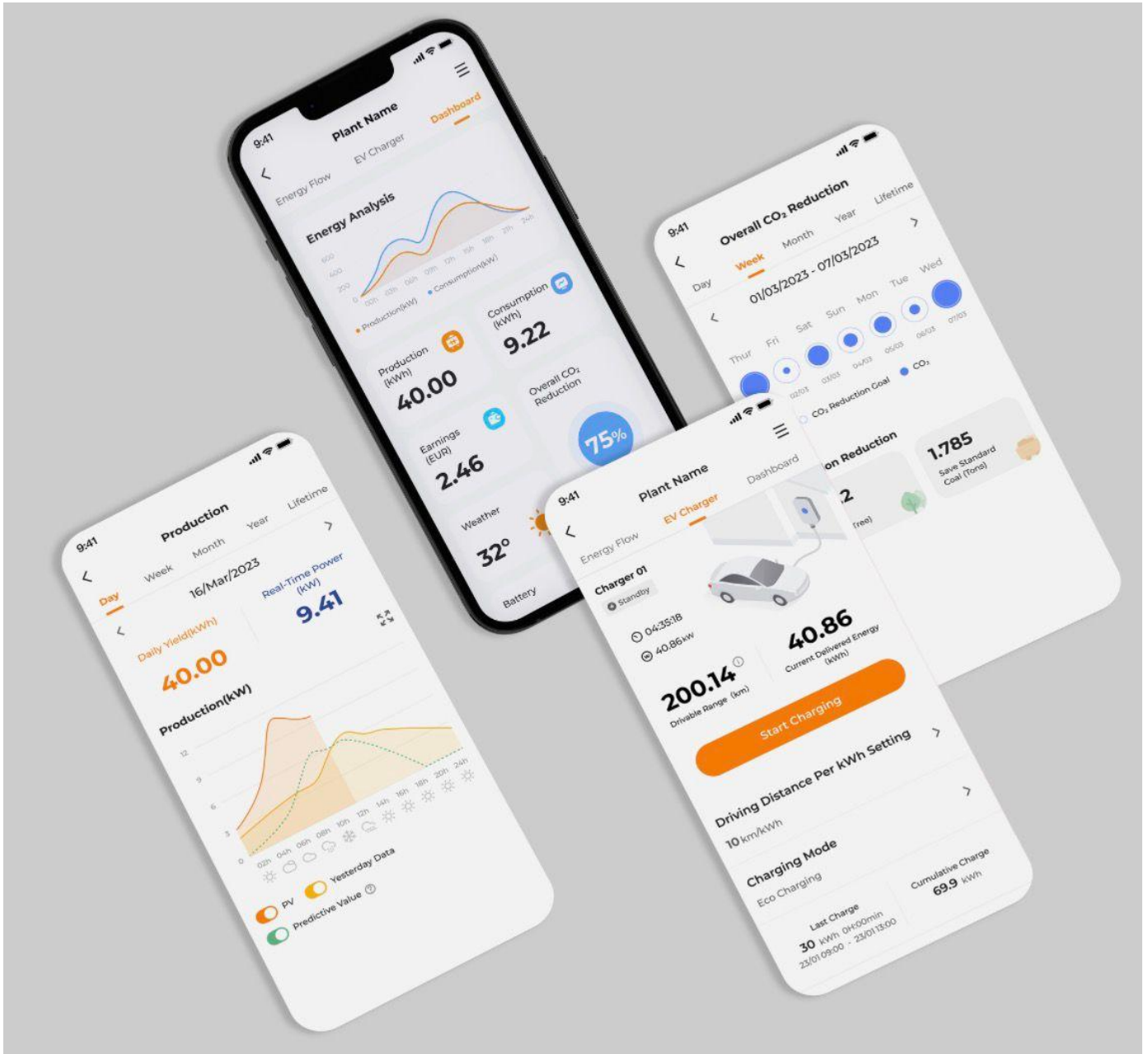
Sample General Layout



Sample General Layout



The Smart Monitoring App provides real-time visibility into energy generated and system status from your phone App, helping optimize energy use and manage your solar and power storage systems.





Base on 33.83kWp Solar System, 55 panels (615W)

>> **Solar Generate 3760kWh** (Monitoring App)

November 2025 Bill

Account No. 8952657354

Breakdown of Current Charges	Usage	Rate (\$)	Amount (\$)	Total (\$)
Electricity Services				
Export of electricity ***	3358 kWh	0.2130	715.25	
Total Amount Payable			715.25	715.25
Amount payable by SP Services				-715.25
Tax Invoice				
Electricity Services				
Import of elect for PV meters	1637 kWh	0.2755	450.99	450.99
Water Services by Public Utilities Board				
Usage estimated	10.2 Cu M	1.4300	14.59	
Waterborne Tax	10.2 Cu M	1.0900	11.12	
Water Conservation Tax	\$14.59	50%	7.29	33.00
Refuse Removal by Cora Environment Pte Ltd				
	1 Qty	31.19	31.19	31.19
Others				
Pink Notice Fee			0.50	
1% Late Payment Charge ***	\$197.45	1%	1.97	2.47
Amount Payable Exclusive of GST			517.65	517.65
GST	\$515.68	9%	46.42	46.42
Amount Payable Inclusive of GST				564.07
Net Current Charges:				-\$151.18

Import from SP grid: \$450.99 ((When solar not generating & night usage)

Export to SP grid: \$715.25 (Earning from Solar)

Daytime Savings: 3760kWh - 3358kWh = (402kWh x \$0.2755) = \$110.75 (Direct Usage from Solar)

Total savings: \$715.25 + \$110.75 = \$826.00



Total Amount Payable: **\$0.00**

Payment Due: 19 Feb 2026

This is your tax invoice for




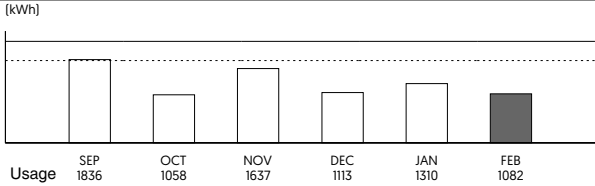

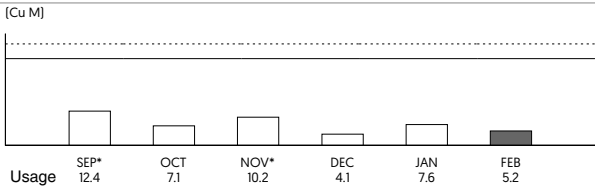
326-000275-00138-3733

Billing Period
08 Jan 2026 - 04 Feb 2026

Bill Date
05 Feb 2026

Account Type
Domestic

Deposit
\$250.00

Current Charges	Consumption Trend	Total
 Electricity Services Usage: 1082 kWh	<p>(kWh)</p>  <p>Usage: SEP 1836, OCT 1058, NOV 1637, DEC 1113, JAN 1310, FEB 1082</p>	-\$317.84
 Water Services by Public Utilities Board Usage: 5.2 Cu M	<p>(Cu M)</p>  <p>Usage: SEP* 12.4, OCT 7.1, NOV* 10.2, DEC 4.1, JAN 7.6, FEB 5.2</p> <p>---- Neighbour average — National average *Estimated month</p>	\$16.83

Well Done



You have consumed less in all your utilities as compared to previous month.
Find out how to save more by visiting our website at www.spgroup.com.sg

Refuse Removal
by Cora Environment Pte Ltd
GST

\$31.19
\$30.33

Current Charges:
(Inclusive of GST)

-\$239.49

Summary of Charges

Balance Brought Forward from Previous Bill	-\$328.01
Payment Received	\$0.00
Outstanding Balance	-\$328.01
Current Charges due on 19 Feb 2026 (Thu)	-\$239.49

This amount will be used to offset your next bill

-\$567.50

SP Services Ltd: Co. Registration No. [199504470N] | GST Registration No. [M2-8920920-4]

For details on difference between current charges and total amount payable, see Summary of Charges

For cheque payment: Crossed cheque is to be made payable to '**SP Services Ltd**'. Please detach and mail this portion with your cheque to '**SP Services Ltd, Privy Box No. 920277, Singapore 929292**'. [No receipt will be issued. Please do not send post-dated cheque.]

Payment Due:
19 Feb 2026

Total Amount Payable:
\$0.00

Please make full payment by the due date to avoid \$0.50 Pink Notice Fee and 1% Late Payment Charge.

Account No 8952657354	Cheque No	Bank:
		Branch:



8952657354

000000000000

Breakdown of Current Charges	Usage	Rate (\$)	Amount (\$)	Total (\$)
Electricity Services				
Export of electricity ***	2966 kWh	0.2046	606.84	
Total Amount Payable			606.84	606.84
Amount payable by SP Services				-606.84
Tax Invoice				
Electricity Services				
Import of elect for PV meters	1082 kWh	0.2671	289.00	289.00
Water Services by Public Utilities Board				
Meter Reading taken : 147.5	5.2 Cu M	1.4300	7.44	
Waterborne Tax	5.2 Cu M	1.0900	5.67	
Water Conservation Tax		50%	3.72	16.83
Refuse Removal by Cora Environment Pte Ltd				
	1 Qty	31.19	31.19	31.19
Amount Payable Exclusive of GST			337.02	337.02
GST	\$337.02	9%	30.33	30.33
Amount Payable Inclusive of GST				367.35
Net Current Charges:				-\$239.49

*** Not subject to GST




Meter Reading

- To avoid an estimated bill next month, please submit your meter readings from 04 Mar 2026, 6am to 07 Mar 2026, 5pm via SP app or www.spgroup.com.sg.



Notices

- Payment received on or after 04 Feb 2026 may not be included in this bill.

Contact Information		
	<p>Scan here to update your contact details and access more e-services on the SP app.</p>	<p>Customer Service Centre 490 Lorong 6 Toa Payoh #09-11, HDB Hub Biz Three Lift Lobby 1, Singapore 310490</p> <p>General Enquiries: 1800 222 2333</p> <p>Payment Arrangement: 6671 7100</p>
		<p>Emergency Numbers</p> <p>Electricity: 1800 778 8888</p> <p>Water: 1800 225 5782 [CALL PUB]</p> <p>Gas: 1800 752 1800</p>

This bill serves as a tax invoice for the collection of:

- Electricity charges for SP Services Ltd and SP PowerAssets Ltd (200302108D) or Tuas Power Supply Pte Ltd (200004985K) or Sembcorp Power Pte Ltd (199707557R) or Singapore Institute of Technology (200917667D)
- Gas charges for City Energy Pte. Ltd. (as Trustee of City Energy Trust) (M90356440A)
- Water charges, NEWater charges, water conservation tax and waterborne tax for the Public Utilities Board (M8-8100014-4)
- Refuse removal fee for Cora Environment Pte Ltd (199507280G) or Colex Environmental Pte Ltd (201133348M) or 800 Super Waste Management Pte Ltd (M2-0073013-5) or TEE Environmental Pte. Ltd. (200106873W) or ALBA W&H SmartCity Pte Ltd (201938124E)
- Chilled Water charges for SP Home Cooling Pte. Ltd. (201924654M)

The amount for GST shown on the bill is calculated based on the sum of the GST charged for each individual item.

Different payment options with SP Services



GIRO

Set up eGIRO via SP app or SP Utilities Portal.



PayNow QR

Generate a QR code unique to your account on the SP app or SP Utilities Portal to pay your bill.



Self Help Machines
At AXS Stations and
DBS/POSB/OCBC ATMs.



SP app

View and pay your bills via the app.

- Debit/Credit cards for domestic customers only. [VISA, MasterCard, AMEX]



Internet Banking

Select "SP Services" as the Billing Organisation at your bank's portal.



Counter Payment

Cash, NETS, CashCard payments can be made at 7-Eleven stores.

Find out other payment options at www.spgroup.com.sg

We may, from time to time, contact you to obtain feedback or inform you about the services and offers of SP Services and its trusted partners. If you do not wish to be contacted, please inform us. Please visit www.spgroup.com.sg to read our T&Cs.