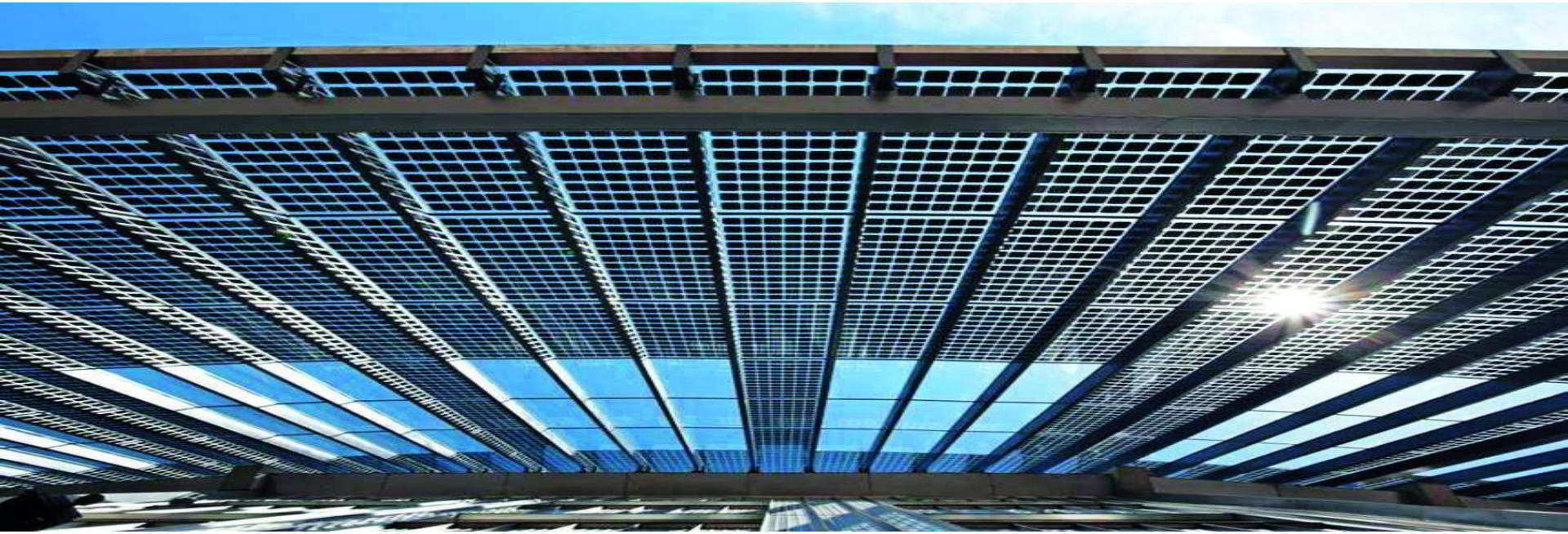
SolarArchitech™

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

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 inspect the installation 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:** 20.1 kWp, 30 panels (670W)
- **Sunlight Hours:** 4.5 hrs/day
- **Efficiency Factor:** 80%
- **Electricity Rate:** $0.34/kWh

Monthly Energy Production: 20.1 kWp × 4.5hr × 30d × 80% = 2,170 kWh

Monthly Savings: 2170 kWh × $0.34 = $738

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.

The Huawei 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.

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.

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

G8 ENERGY PTE LTD
www.G8-energy.com

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.

Office: 65 Pasir Panjang Road, ThirdSpace Singapore 118506
Telephone No.: +65 8289 8999
Email: solar@g8-energy.com

SPgroup
Empowering the Future of Energy

August 2026 Bill

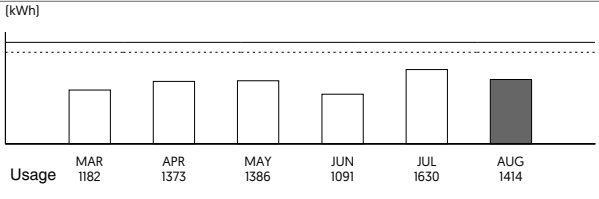
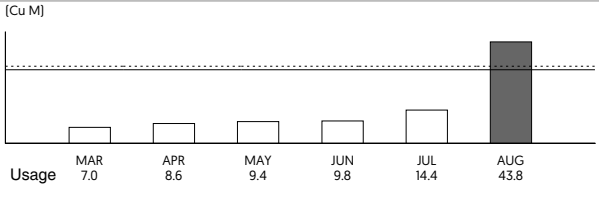
Total Amount Payable: $0.00

Payment Due: 27 Aug 2026

This is your tax invoice for

326-000361-00181-2553

Billing Period	Bill Date	Account Type	Deposit
08 Jul 2026 - 05 Aug 2026	13 Aug 2026	Domestic	$250.00

Current Charges	Consumption Trend	Total
Electricity Services Usage: 1414 kWh		-$221.66
Water Services by Public Utilities Board Usage: 43.8 Cu M		$146.07

---- **Neighbour average** —— **National average**

Keep Trying

You have consumed more Water compared to the previous month.
Find out how to save more by visiting our website at www.spgroup.com.sg

Refuse Removal by Cora Environment Pte Ltd	$32.57
GST	$56.69
Current Charges: (Inclusive of GST)	**$13.67**

Summary of Charges

Balance Brought Forward from Previous Bill	-$1,388.29
Payment Received	$0.00
Outstanding Balance	-$1,388.29
Current Charges due on 27 Aug 2026 (Thu)	$13.67
This amount will be used to offset your next bill	**-$1,374.62**

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:
27 Aug 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	Cheque No	Bank:
		Branch:

Breakdown of Current Charges	Usage	Rate ($)	Amount ($)	Total ($)
Electricity Services				
Export of electricity ***	2607 kWh	0.2581	672.87	
Total Amount Payable			672.87	672.87
Amount payable by SP Services				-672.87
Tax Invoice				
Electricity Services				
Import of elect for PV meters	1414 kWh	0.3191	451.21	451.21
Water Services by Public Utilities Board				
Meter Reading taken : 240.5	40.0 Cu M	1.4300	57.20	
	3.8 Cu M	1.8100	6.88	
Waterborne Tax	40.0 Cu M	1.0900	43.60	
	3.8 Cu M	1.4000	5.32	
Water Conservation Tax	$57.20	50%	28.60	
	$6.88	65%	4.47	146.07
Refuse Removal by Cora Environment Pte Ltd	1 Qty	32.57	32.57	32.57
Amount Payable Exclusive of GST			629.85	629.85
GST	$629.85	9%	56.69	56.69
Amount Payable Inclusive of GST				686.54
Net Current Charges:				**$13.67**

*** Not subject to GST

Meter Reading

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

Notices

- Payment received on or after 08 Aug 2026 may not be included in this bill.

Contact Information

Scan here to update your contact details and access more e-services on the SP app.

Customer Service Centre
490 Lorong 6 Toa Payoh #09-11, HDB Hub
Biz Three Lift Lobby 1, Singapore 310490

General Enquiries: 1800 222 2333

Payment Arrangement: 6671 7100

Emergency Numbers

Electricity: 1800 778 8888

Water: 1800 225 5782 (CALL PUB)

Gas: 1800 752 1800

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 (MB-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.

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

>> Solar Generate 3760kWh (Monitoring App)

August 2026 Bill

Account No.

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GST	$629.85	9%	56.69	56.69
Amount Payable Inclusive of GST				686.54
Net Current Charges:				**$13.67**

Import from SP grid: **$451.21** ((When solar not generating & night usage)

Export to SP grid: $672.87 (Earning from Solar)

Daytime Savings: 3760kWh - 2607kWh= (1153kWh x $0.2581)= **$297.59** (Direct Usage from Solar)

Total savings: $672.87 + $297.53 = $970.40