

**SRI LANKA'S
FIRST 1.2 MW INSTALLATION
UNDER NEW SOLAR CODE
FOR HV METERING**

**COVERING 4000+
INSTALLATIONS
ISLANDWIDE**



**SUNPOWER ENERGY SYSTEMS
(PRIVATE) LIMITED**

📍 3rd floor, Forbes & Walker Building, 46/38, Nawam Mawatha, Colombo 02.
☎ 0112 441 020 / 071 20 30 777 / 071 20 30 778

**SRI LANKA'S
FIRST 500kW
GRID CONNECTED
SYSTEM FOR
SEA & CEB**

**SRI LANKA'S
FIRST RURAL
ELECTRIFICATION
INITIATIVE WITH
NHDA AND
BP SOLAR
AUSTRALIA**

PIONEERING LEADERSHIP SINCE 1987

- **First 500kW grid connected system in Sri Lanka for SEA & CEB**
- **First rural electrification initiative with HHDA & BP Solar Australia**
- **First research based solar project with ADB**
- **First and largest solar energy education and health infrastructure development project in the world with NAPS Finland**
- **First and only tubular daylighting system in partnership with Solatube USA**
- **First 1.2 MW installation under new solar code for HV Metering**
- **Covering 4000+ installations islandwide**





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Company Profile

Sunpower at a Glance

Sunpower Systems (Pvt) Ltd. incorporated in 1987 with the objective of introducing solar and other alternate energy to Sri Lanka. Today we are a diverse business operation in many fields from Energy to Drinking Water Supply.

Our business is built on a strong foundation of values and ethics. We represent many leading global agencies and source technology from the best in the world to fulfill emerging needs in Sri Lanka's fast-growing economy.

At various stages in our history of over 33 years, Sunpower has been instrumental in initiating and developing many firsts in this country including the first private FM radio station, first private TV station and the first GSM Mobile telecom operation in the country.

Being the first solar PV company in Sri Lanka Sunpower pioneered in implementing several turn-key distributed solar power projects for different Government agencies. One such project was in 2006/7, with a value of EUR 24.7 Million and was the largest of its kind in the world at the time of implementation.

With more than 33 years of experience in Solar Technologies, we have completed a range of solar powered installations, far greater in number than any of our competitors.

This includes Sri Lanka's First 500 kW Grid Connected Solar Power Plant in Hambantota which was implemented in 2011 and a 27 Million Euro project to provide solar energy for the development of rural education and health infrastructure facilities of Sri Lanka. This was the largest of its kind in the world at the time of implementation.

In 2015 Sunpower Systems (Pvt) Ltd became the only company to be shortlisted as technically complied by the Sri Lanka Sustainable Energy authority to carry out a 200kW solar net metering project funded by Asian Development Bank.

In 2018 Sunpower initiated to install MW scale solar PV plants starting with a 1.2 MW project at Badalgama for Global Rubber Industries (Pvt) Ltd.



Today Sunpower has evolved into a company providing total energy solutions whilst transforming renewable and alternative energy application into thriving, profitable business models. We help our customers identify potential energy saving opportunities and guide them through a continuous improvement process to increase energy efficiency. This way we ensure the investments on alternate energy solutions such as solar power provide a better return on investment.

Our more than 31 years of commitment to renewable energy and energy efficiency initiatives has given us a wealth of knowledge and experience. Based on this experience we have tabulated a comprehensive database on design, performance and other vital technological insights. Therefore, now we are able to provide you with the most efficient solutions to generate the desired results financially and technologically.

Currently Renewable Energy Division of Sunpower Systems (Pvt) Ltd. handles all the renewable projects installation, maintenance work etc. Anticipating of the future expansion of the Renewable Energy Division and to serve our customers better, Shareholding Directors of Sunpower Systems (Pvt) Ltd., have decided to convert the Renewable Energy Division of Sunpower Systems (Pvt) Ltd., to a new limited liability company. We have incorporated a new company, fully owned subsidiary of Sunpower Systems (Pvt) Ltd named Sunpower Renewables (Pvt) Ltd.

After reviewing the potential and the growth of the renewable energy sector in Sri Lanka the shareholders were of the opinion that a new management will required and the name of the company was changed to **“Sunpower Energy Systems (Pvt) Ltd.”**



Recently completed corporate projects

Company	Capacity
Global Rubber Industries	1,200 kW
DSI Group	1,200kW
Taprobane Seafoods	960 kW
Global Seafoods	680 kW
Ghanam Group	400 kW
International Distilleries Ltd	400 kW
Emergent Cold	100 kW

Recently completed National Projects

UVA Province	20 MW
Central Province	10 MW
Eastern Province	10 MW
National Hospitals (11 Sites)	440 kW

Further establishing the Market leadership in the Renewable Energy Sector, Sunpower has obtained the approval for a 700 MW Solar power plant at Kilinochchi Poonakary with Battery Storage. A total investment of USD 1.72 Bn will be made by United Solar Energy – Australia.

1.2MW

Solar Net Plus System

Factory buildings of Global Rubber Industries (Pvt) Ltd at Badalgama.



1.2MW

Solar Net Plus Project

Samson International PLC (DSI) - Galle



Solar Park Project in Hambantota (Ground Mounted)

500kW

Sunpower installed and commissioned the First Grid Connected Ground Mounted Solar System in Sri Lanka in April 2011. The project was declared open on 8th of Aug 2011.

- Total Capacity : 500 kW
- No of Panels : 2,156 of 230W
- Project Period : 2 Months. Completed on 30th April 2011
- Location : Buruthakanda, Hambantota, Sri Lanka
- Client : Sri Lanka Sustainable Energy Authority





400kW

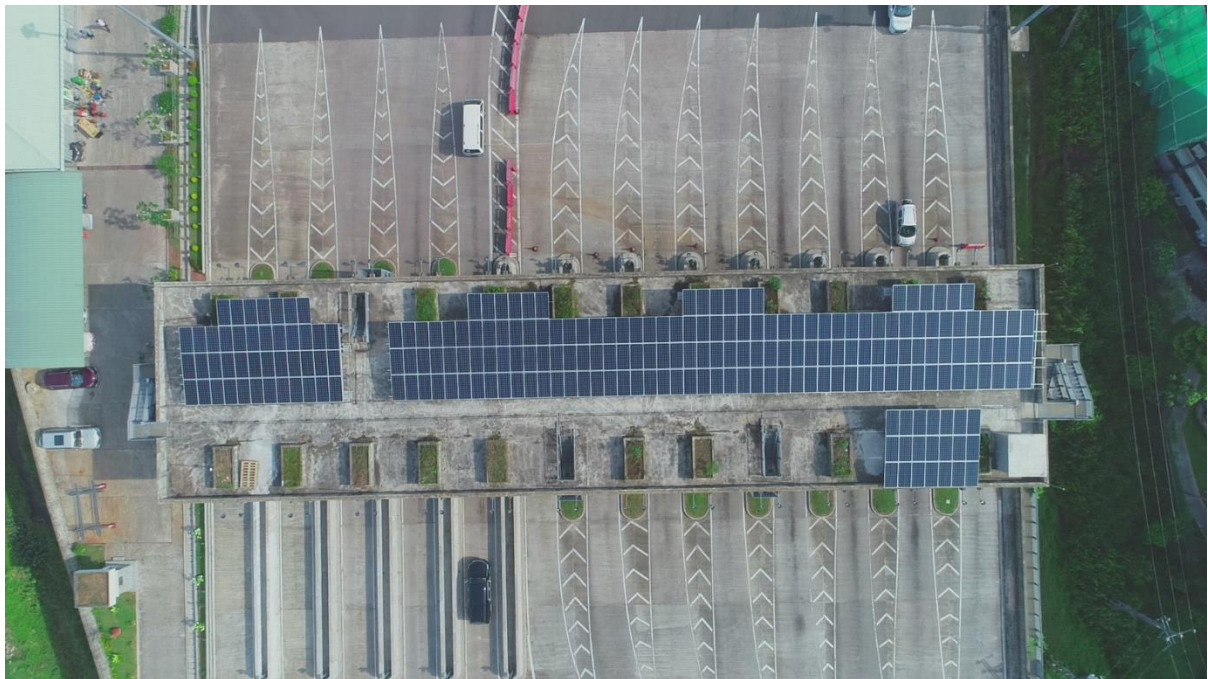
Solar Net Plus System

International Distilleries Limited (IDL) - Kaduwela



Highway Solarization - 80 kW (To be extended up to 100 kW)

Initiated the solarization of the highway interchanges starting a 80 kW solar PV system at Kottawa Interchange at Southern Expressway under Road Development Authority.



200kW University Solarization

Design Supply and Installation of Solar Photovoltaic Power Generating Plants at Selected Technical Universities of Sri Lanka

Client	:	Sri Lanka Sustainable Energy Authority - Funded by Asian Development Bank.
Total System Capacity	:	200kW (2x60kW systems and 2x40kW systems)
Total Project Value	:	EURO 188,987.08 and LKR 12,455,943.6



Sri Lanka has received a grant from the Asian Development Bank (ADB) to implement a Clean Energy and Network Efficiency Improvement Project. Part of this grant will be used for installation of rooftop Solar Photovoltaic Power Generating Plants at Selected Technical Universities of Sri Lanka.

Accordingly, The Sri Lanka Sustainable Energy Authority invited sealed bids from eligible bidders for the construction and completion of Solar Photovoltaic Power Generating Plants.

Sunpower Systems (Pvt) Ltd was selected to Design, Supply and Install Four large scale solar rooftop systems at four universities in Sri Lanka namely University of Peradeniya, University of Jaffna, University of Moratuwa and University of Ruhuna.

These systems will not only assist the universities to bring down their electricity cost but also be used for research purposes to enhance student knowledge and skills related to renewable power generation.

205 kW Solar PV System at Faculty of Medicine, University of Sri Jayewardenepura



125 kW Solar PV System at Eastern University





Out of many satisfied clients, selected a few for your perusal

560kW Solar PV Project at Advanced Technological Institutes

Client: Ministry of Higher Education



400kW Solar Net Metering Project for Public Hospitals

➤ Client: Sustainable Energy Authority



612kW Solar Net Plus System at Global Sea Foods (Pvt) Ltd

- Client: Global Sea Foods (Pvt) Ltd
 - Phase 01 (122kW)
 - Phase 02 (490kW)



328kW Solar Net Plus System at Don Bosco Technical Training Centre - Nochchiyagama

- Client: Don Bosco Technical Training Centre



250kW Solar Net Plus System for New Manning Market Complex at Peliyagoda

- Client: Maga Engineering (Pvt) Ltd & Urban Development Authority (UDA)



100kW Solar Net Metering System at Sierra Cables PLC

- Client: Sierra Cables PLC



75kW Solar Net Metering System at NPQS

- Client: National Plant Quarantine Service, Katunayake



70kW Solar Net Metering Systems at National Savings Bank

- Client: National Savings Bank



60kW Solar Net Metering System at Liberty Group – Finnpack Industries (Pvt) Ltd.

- Client: Finnpack Industries (Pvt) Ltd



40kW Solar Net Metering System at Nestle Lanka PLC

Client: Nestle Lanka PLC



Solar Energy for the development of Rural Education and Health Infrastructure Facilities of Sri Lanka

Project in brief:

1. **Total installed capacity – 900 kW (1,614 Solar power systems)**
2. Description of Solar power systems installed
 - a. 440 nos. of School power packages
 - b. 440 nos. of School staff quarter packages
 - c. 147 nos. of Health Centre packages
 - d. 587 nos. of Solar water pumping systems
3. Project period – One year
4. Locations – 587 sites in 7 districts of Sri Lanka.
5. Total project value: Euro 27 Million.

Our scope of work

1. Selection of sites to provide solar energy in seven districts of Sri Lanka, namely Anuradhapura, Polonnaruwa, Matale, Kandy, Nuwara Eliya, Badulla and Monaragala
2. Installation, testing and commissioning of Solar powered electricity systems in 587 locations.
3. Construction of boreholes, 5000 and 10000 Litre water tank structures and installation testing and commissioning of solar powered water pumping systems

Project: Targeted the improvement of infrastructure facilities of rural school and health centres of seven districts in Sri Lanka. Ministry of Provincial Councils and Local Government implemented this project with Naps Systems Oy, of Finland utilising funds from the Finnish Government.

Sunpower Systems (Pvt) Ltd. was the implementation partner of Naps Systems Oy. in Sri Lanka, who carried out the installation of 1614 solar power systems in seven districts.



Other Solar Projects Implemented

A programme of solarisation was undertaken in Pansiyagama village in Kurunegala District. Sunpower, along with BP Solar Pty Ltd of Australia, was awarded the contract in mid-1989 to design, supply and install 1,000 nos. of domestic photovoltaic systems. These provided electricity for lighting and operating small appliances such as radios and TV sets. This project was funded by Australian aid and managed by National Housing Development Authority (NHDA) of Sri Lanka.

It was literally a case of bringing a region out of the darkness and into the light. Consider just two benefits. Electrification encouraged primary education in an area where the literacy rate was significantly lower than the national average of more than 90%. It also encouraged teachers and health personnel to live and work in the area.

Water Supply

At the ancient monastery at Nagadeepa, a solar power system, designed, installed and maintained by Sunpower, brings piped water. Water from the monastery's overhead tower flows to the village school.

The Uva Region Photovoltaic Power Rural Infrastructure Development Project, launched in 1991 by the Ministry of Housing & Construction, Government of Sri Lanka, was, at that time, the largest solar infrastructure project of its kind in the world.

Sunpower, together with BP Solar, was commissioned to install more than 100 systems for various uses. Water delivery, lighting and maternity & public health were 3 important focus areas. Solar powered pumps were used to store water in overhead tanks and deliver it to public taps. Not only did this make day-to-day life easier, it also encouraged cleanliness and personal hygiene, which had a direct bearing on the health of the population.



Public Health

Electricity from solar power is ensuring a better, healthier life for young and old alike by providing essential facilities at maternity clinics, hospitals, community centres and vocational training centres.

Despite a well laid out network of maternity clinics, dispensaries and hospitals, Sri Lanka's rural public health system used to suffer, in some areas, from the lack of electricity.

Emergency deliveries had to be done by candlelight. Post natal vaccines for infants and snake bite venom had to be fetched from long distances. Basic facilities such as lighting, water heating and refrigeration were not available.

Equally, because of the primitive living conditions, it was difficult to attract competent and dedicated staff to rural hospitals.

Solar power installations helped to remove these drawbacks and make the rural health system far more effective. Vaccines needed for immunisation programmes and anti-venom for snakebites can now be refrigerated. Childbirths are easier. Night lighting has made the hospitals safer. Midwives, equipped with solar lanterns, can make house calls.

Railways

At the turn-of-the-century Rozella Railway Station in Nuwara Eliya District, the telephone no longer has to be hand-cranked, thanks to solar power.

The Railways may no longer be the transportation backbone of the country, but they certainly are the lifeline of the hill country - for its people as well as its produce. To keep the trains running safely and on time, repeater stations, signalling and semaphoring equipment, the telegraph and telephones have to work reliably around the clock. But a number of stations as well as large lengths of track are still outside the national electricity grid.

Commissioned by Sri Lanka Railways, Sunpower along with NAPS of Finland devised the technology to solarise these applications. We generate more than 30 KW of electricity at their repeater stations.

Railway track signal equipment can now be powered by inexpensive, maintenance-free solar power systems installed by Sunpower. These are replacing expensive storage batteries, which have to be replaced regularly and sometimes simply vanish through human intervention!



GOVERNMENT PROJECT HANDLE BY SUNPOWER ENERGY SYSTEMS

GAIA GREENENERGY HOLDINGS

INDUSTRY OVERVIEW

The CEB projects that Sri Lanka's electricity consumption will increase by 6% annually between 2015 and 2034, with a peak demand increase of over 3%. Currently, large-scale hydro and thermal power generation, as well as Non-Conventional Renewable Energy (NCRE), which accounts for a small portion of overall generation, are the main sources of energy used in the electricity sector.

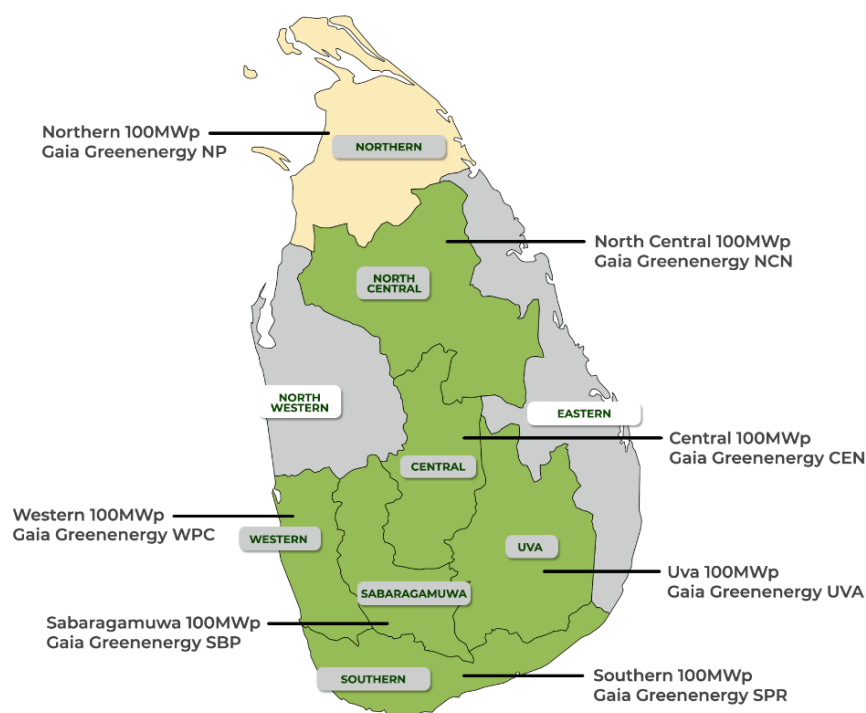
The Soorya Bala Sangramaya Programme (Battle for Solar Energy), a solar PV rooftop incentive program with a target to install 1,000 MWp by 2025, was launched by the Sri Lankan Ministry of Power and Energy in partnership with the Sri Lanka Sustainable Energy Authority and the CEB in 2016. It currently has 580 MWp of installed capacity, producing close to 800 GWh (5% of total generation). The Sri Lankan government and CEB offer incentives to investors and developers under the NET PLUS PLUS program by purchasing electricity produced by solar PV rooftop installations. The government's current aim is to increase the amount of energy produced from renewable sources in order to produce 70% of its electricity from low-carbon sources by 2030, with more than half of that amount coming from renewable sources.

BACKGROUND OF THE GAIA GREENERY HOLDINGS

Gaia Greenenergy holdings have the largest single renewable energy development concession in Sri Lanka, consisting of a 500 MWp rooftop solar scheme, and is backed by international ESG investors. In May 2021, Gaia Greenenergy and the Provincial Government of the Uva Province had a contract for the development of roughly 50 MWp of electricity and the leasing of 1,000 schools, hospitals, and other government buildings.

In June 2021, installation work started and currently, the company have comparable agreements with the Central, North Central, Southern, Sabaragamuwa, and Western Provinces to create solar rooftop PV power plants in over 7,500 locations. This will be the greatest solar PV development program in Sri Lankan history with 500 MWp. The scheme under consideration aims to provide the national grid with 750 GWh of renewable energy.

NATIONAL FOOTPRINT OF GAIA PROJECT



COMMUNITIES BENEFITED FORM THE PROJECT.

GAIA deliberately began implementing the Rooftop Program in schools in order to teach the next generation of leaders about the importance of conserving energy. In addition, the University of Moratuwa came to the conclusion that midday power outages might be eradicated for the entire province once this project reaches 65 MWp capacity. This would maintain vital facilities, including medical clinics, in operation throughout the day and considerably increase production.



PRESENT STATUS OF THE COMPANY

Sunpower Energy Systems has completed overall 193 sites during last two years by providing supplying total 9.9MW to the National Supply.

Breakdown is as follows:

No of Sites Completed Stage II	Capacity	Total Capacity
180	43kW	7.7MW
13	173kW	2.2MW
193	216kW	9.9MW

Recommendations Received from SLSEA



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இலங்கை நிலைபெறுதகு சக்தி அதிகாரசபை
Sri Lanka Sustainable Energy Authority



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மின்வலு மற்றும் சக்தி அமைச்சின் நியதிச்சட்ட அதிகாரசபை
A Statutory Authority of Ministry of Power & Energy

22nd March 2021

To whom it may concern;

Letter of Recommendation.

We have obtained the services of SunPower Systems (Private) Limited for our Solar power project development programs and initiatives in the country almost a decade to date.

From the inception, they have had a very close relationship with our organization and have been an active participant in discussion & policy making forums. Their contribution to the development of renewable energy sector must be commended along with their engineering capability, dedication and commitment.

Listed below are the successful projects carried out by SunPower Systems (Private)Limited

1. 500kW Ground Mounted Solar Park Project in Hambantota, Sri Lanka's First Grid Connected Solar System in April 2011.
2. Design Supply and Installation of 200kW Solar Photovoltaic Power Generating Plants at Selected Technical Universities in Sri Lanka.
3. 400kW Solar Net Metering Project for Public Hospitals
4. 40kW Solar PV System under New Accounting for Devi Balika Vidyalaya, Colombo 08.
5. 75kW Solar PV System under New Accounting for National Plant Quarantine Service (NPQS) Katunayaka.

This letter has been issued at the request of SunPowerSystems (Private) Limited

Thanking You,

Yours Faithfully,

Director (Renewable Energy Services)
SRI LANKA SUSTAINABLE ENERGY AUTHORITY

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5th கட்டிடம், முதலாம் மாடி, BMICH, பொத்தாளிலாக்க மாவத்தை, கொழும்பு 07, இலங்கை.
Block 5, 1st Floor, BMICH, Baudhaloka Mawatha, Colombo 07, Sri Lanka.

තැපෑල Office	දුරකථන Facsimile	විදුලික E-mail	වෙබ් අඩවිය Web Site
+94(0)11 267 7445	+94(0)11 268 2534	info@energy.gov.lk	www.energy.gov.lk



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