



**RADIANT**  
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*Green energy for life*

**RADIANT SOLAR**

Accreditation by Ministry of New and Renewable Energy of Government of India (MNRE) as authorized Channel Partner for Off grid, decentralized solar applications and Grid Connected Rooftop Solar Power Plants

## **A CASE STUDY OF 30kW SOLAR INSTALLATION AT THANGAM HOSPITAL OF PMRC, KERALA**



- **Approved Empanelment Agency under ANERT 10,000 Home Projects in Kerala**
- **Second largest installer for ANERT 10,000 Home Projects in Kerala**
- **Radiant Solar – A company consisting of 90% Engineers**
- **We know it, we understand it**
- **Radiant Solar allows you to be free from all procedural whirlpools after placing the order**
- **From installation to subsidy Radiant does it all**

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## Introduction

THANGAM, Hospital is a unit of Palakkad Medical and Research Centre Limited (PMRC) located at Palakkad, Kerala State, is a well known Hospital, The Hospital gives great emphasis on quality treatment by making available Specialist Doctors services round the clock with special emphasis on Quality Nursing Care, special attention to all patients as well as their bystanders by offering an excellent ambience and surroundings.



## The Challenges

Thangam Hospital was facing the following challenges:

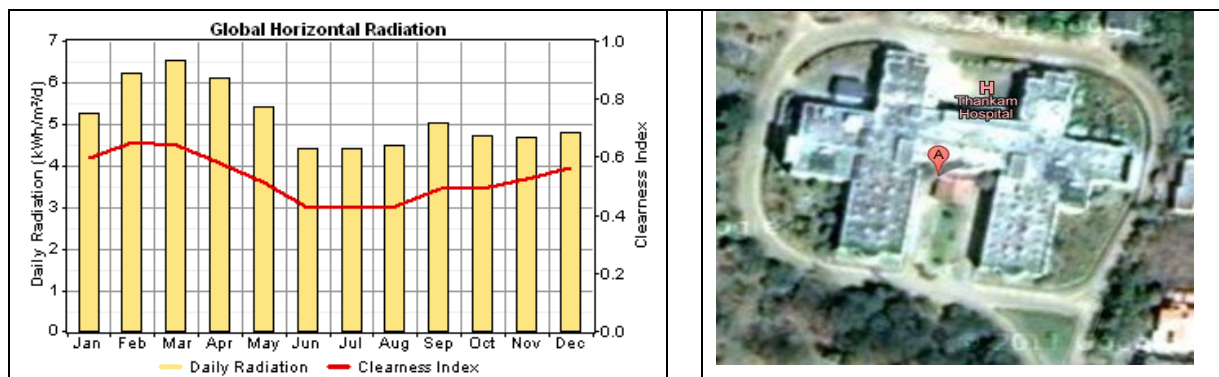
- Continuously increasing Electricity Bills
- High energy consumption
- Frequent Power cuts
- To maintain continuous backup to critical load and machines
- Number of working hours lost due to power failure
- Increasing Diesel Consumption

The total load of Thangam hospital is 395 kW and the Diesel Generator will cater partially the essential load, during power break down. To provide uninterrupted power to the Laboratories and other facilities and also to meet the energy shortage and to become the producer of Green Energy, they contacted the largest Green Energy Producer-**Radiant Solar**.

## Radiant's Solution

After multiple exhaustive site visits Radiant Solar collected information on current electricity charges, energy consumption pattern of the hospital, capacity of load for which backup is to provided. After thorough study and research of the requirements put forward by Thangam Hospital, we have proposed a 30kW Grid interactive Solar Power Plant using Leonics make grid interactive inverter with 27.6kWp polycrystalline solar modules along with battery bank to provide backup to critical machines and load.

The average annual solar insolation at Thangam location is 5.16kWh/m<sup>2</sup>/day and the Thangam installation designed to generate around 115 units of electricity per day and 41,933 units of electricity per year as per the average annual solar insolation.



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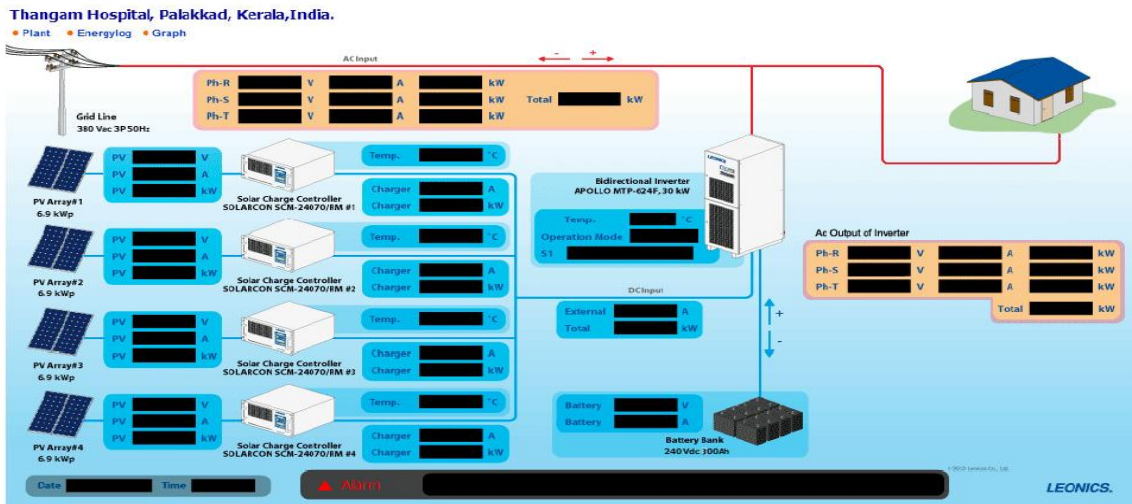
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**Project Details**

Technical Details	
Capacity of Power Plant	30kW
Type	Grid interactive with battery backup
Inverter	Imported Leonics make 30kW Grid Interactive
Charge Controller	Imported Leonics make 240V 70A- 4 numbers
Modules	27.6 kWp Polycrystalline Modules
Battery Bank	240V 300Ah Tubular VRLA GEL
Annual Energy Generation	41,933 /annum

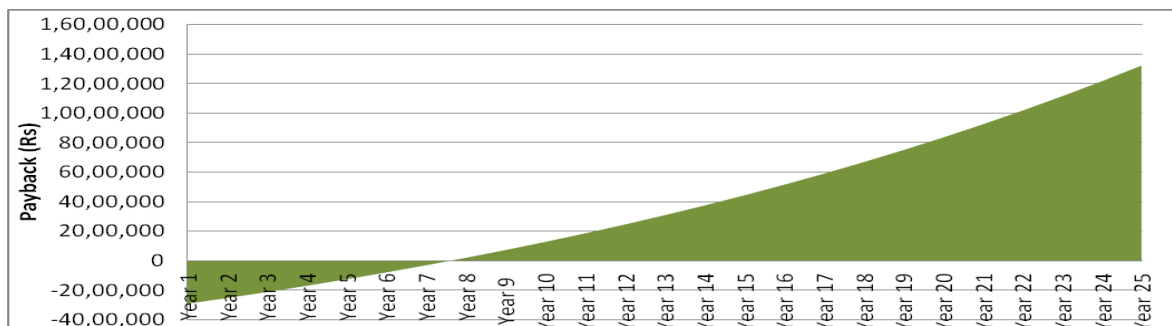
**Remote Monitoring**

The solar power plant is supported with a remote monitoring facility 24 x 7. This remote monitoring enables us to monitor the system 24 x 7 and rectify the issues at the earliest.



**Return On Investment**

The Return on Investment for this power plant was one of the attractive and persuasive features. Based on an average of 115 Units of power generated per day for a 30kW system, and factoring in various other parameters the system has a rapid return on investment of 7 years.



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### Subsidy

- Under the Jawaharlal Nehru National Solar Mission (JNNSM), the Ministry of New and Renewable Energy (MNRE) Thangam Hospital was eligible for Rs. 72/Wp.
- Radiant has done all the documentation and approached ANERT for subsidy

### Service & Maintenance

- Radiant Solar warranted the solar power system to be free from manufacturing defects for Five year from the date of commissioning as per MNRE guide lines.
- Any Service Call is handled within 24 hours



Our installation at Thangam is breaking all the records of units generation of electricity. The performance of the solar power plant is outstanding and customer is happy with smooth operation of the solar power plant.

**Call us now for more information +91-8414-392602/603/604**

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To know more about Radiant Solar, visit us at [www.radiantsolar.us](http://www.radiantsolar.us)

Catch us live at: <http://www.youtube.com/watch?v=JW3K8JbdCII&feature=youtube>

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