

The Matrimandir Solar Power Plant



The Matrimandir Solar Power Plant.

The completion of the solar power plant at the Matrimandir, enabling the crystal to continuously diffuse solar light in the Inner Chamber, marks a decisive step in the manifestation of the Truth that Matrimandir represents.

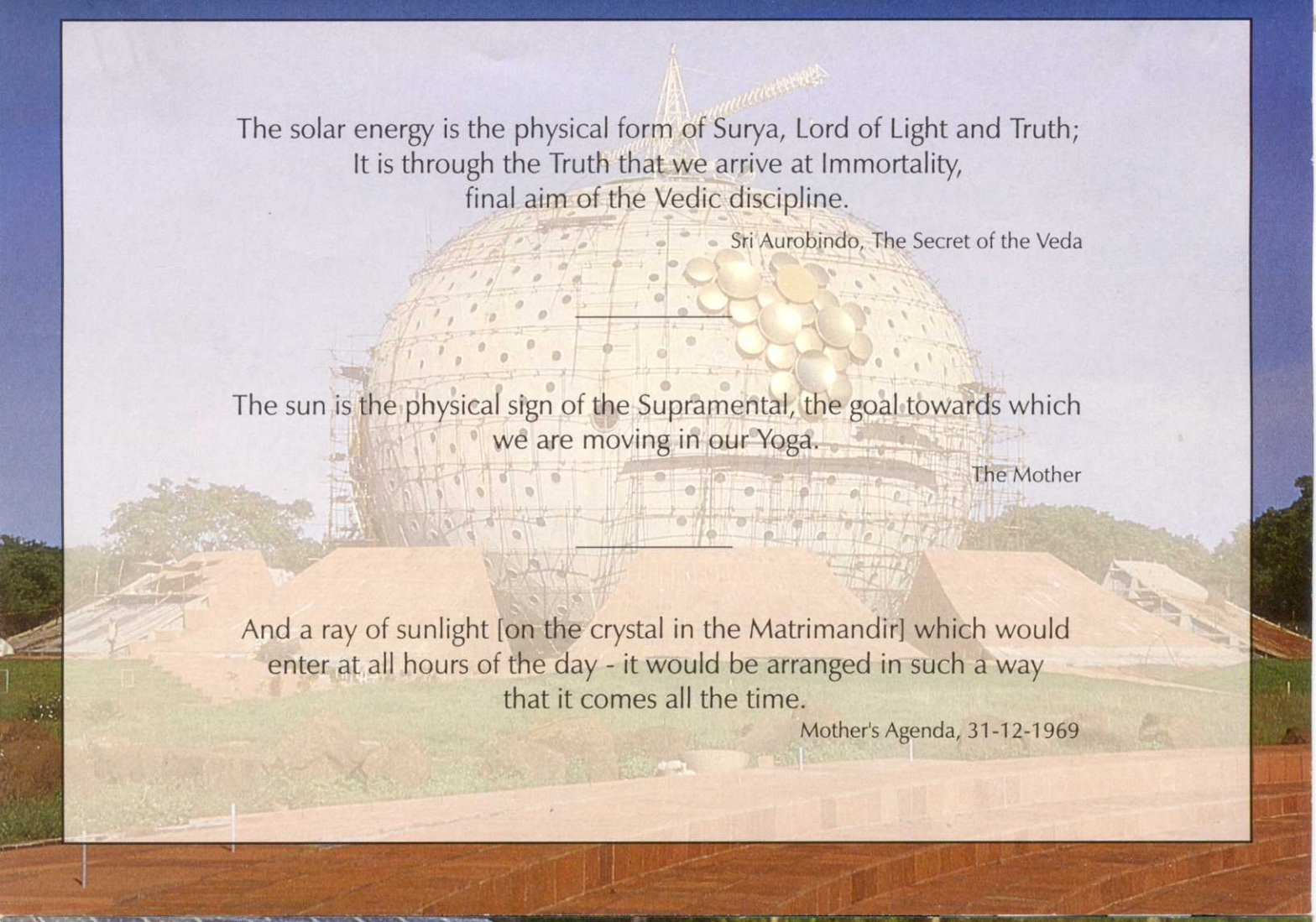
Based on Mother's view that solar energy will be the energy of the future, a project was initiated several years ago to take care of the lighting needs, both inside the Matrimandir and in the surrounding gardens, by means of solar energy.

The present solar power plant consists of photovoltaic cells, placed into 484 panels, transforming sunlight into electrical energy stored in a battery bank. The battery bank provides, in case of cloudy weather, for a storage capacity of two days.

The Matrimandir solar power plant is rated as one of the biggest stand-alone systems in the world. It has a state-of-the-art inverter, which transforms DC current into AC current and is able to monitor and adjust power requirements at any given time.

The solar plant was built and commissioned within 29 days. The total project outlay was around Rs. 1.5 crore.

Let us rejoice in it and benefit from another step on the sunlit path.



The solar energy is the physical form of Surya, Lord of Light and Truth;
It is through the Truth that we arrive at Immortality,
final aim of the Vedic discipline.

Sri Aurobindo, The Secret of the Veda

The sun is the physical sign of the Supramental, the goal towards which
we are moving in our Yoga.

The Mother

And a ray of sunlight [on the crystal in the Matrimandir] which would
enter at all hours of the day - it would be arranged in such a way
that it comes all the time.

Mother's Agenda, 31-12-1969

The Matrimandir Solar Power Plant

Solar Panels:

Capacity of the plant	37 kWp
Number of panels	484 nos, 75 Wp each, monocrystalline
Life of the solar panels	>20 years

Battery Bank:

Capacity of the batteries	1200 Ah / 240 Volts
Number of batteries	2 x 120 nos, 2 V each cell
Life of the solar batteries	6 to 7 years

Solar Charge Controller

Power	37 kW
Operating mode	MPPT (maximum power point tracking) [microprocessor]
Efficiency	94 to 98%

Inverter:

Sine wave inverter	30 kW, continuous power output
Operating mode	Stand alone, bi-directional, grid connected, by-pass
Efficiency	90 to 94%

Promoter:

Development Consultants Industrial Plant Services Ltd. (DCIPS). A member of the Development Consultants Group of Companies (DCL), Calcutta
Indian Renewable Energy Development Agency Ltd. (IREDA), New Delhi.

Financing Institution:

Supplier:

Tata BP Solar India Ltd., Bangalore.

Project Executor:

Centre for Scientific Research (CSR), Auroville.