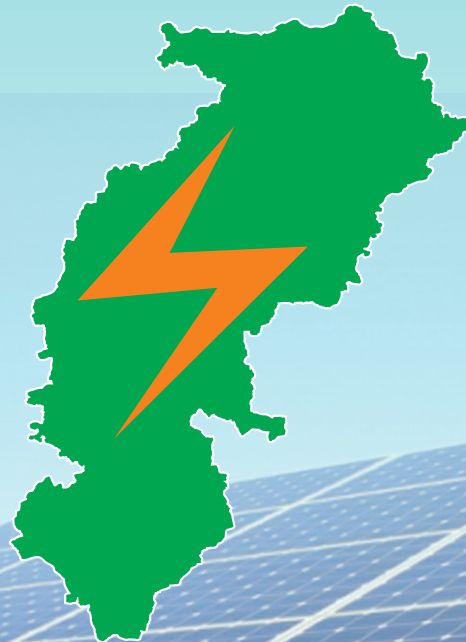




SOLAR POLICY

Govt. of Chhattisgarh

2012 - 2017



CHHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY (CREDA)

Dept. of Energy, Govt. of Chhattisgarh





Dr. Raman Singh

Hon'ble Chief Minister
Govt. of Chhattisgarh

Chhattisgarh has made a significant progress and is a leading state in the field of off-grid and decentralized solar applications including roof tops etc. Now, it is our endeavour to make Chhattisgarh a major player in Grid-connected solar power generation also. Chhattisgarh is endowed with good solar radiation throughout the year coupled with an excellent transmission and sub transmission infrastructure. Against this backdrop, 'Chhattisgarh Solar Policy 2012' provides slew of incentives and facilities.

The main objective of this policy is to make Chhattisgarh an attractive investment destination and encourage innovative grid and off-grid solar power generation and its technologies.

I firmly believe that policies should harmonize environment and development, to promote inclusive growth. 'Chhattisgarh Solar Policy 2012' will go a long way in fulfilling this objective.


Dr. Raman Singh



CHHATTISGARH STATE SOLAR ENERGY POLICY 2012

Preamble

A clear vision of India is developing to reduce its dependence on conventional energy sources and become a leader in renewable energy with increased global awareness on environmental concerns and energy security. The promotion of renewable energy sources and technologies is one of the crucial strategies to bridge the demand – supply gap in the power sector in an environmentally sustainable manner as well as to pave the way for a strategic shift from future import dependence on fossil fuels from the energy security angle.

In India, the solar energy is expected to drive the future growth of renewable energy sources. Solar energy is an important, yet currently under-utilized, resource in the country. India has an average of 300 sunny days every year and receives an average daily radiation of 5.5kW/m². The Government of India launched the Jawaharlal Nehru National Solar Mission (JNNSM) in January 2010, with the objective of achieving 20,000 MW of solar power capacity by 2022. The mission is one of the eight key missions under the National Action Plan for Climate Change (NAPCC). This is a major initiative to tap India's naturally available energy sources and contribute to low carbon sustainable growth in the country, while overcoming its ecological and energy security challenges.

The State of Chhattisgarh is blessed with high solar radiation intensity and high rainfall with capacity for large solar energy generation. Chhattisgarh has the potential to evolve as a major Solar Generation Center in India due to a host of factors. Riding on the huge potential for solar generation, solar equipment manufacturing also has a very bright future and is expected to grow exponentially. Chhattisgarh again has distinct advantages for housing solar manufacturing capacities.

Government of Chhattisgarh had issued a Policy for harnessing Renewable Energy in Chhattisgarh in Year 2002. Based on the progressive views adopted in the last few years and the various changes in the laws and regulations, Chhattisgarh State is in the advanced stage of preparedness for installation of large scale solar power projects in the next 5 to 10 years.

The State Transmission utility (CSPTCL) already has developed strong transmission system comprising of 400 kV, 220 kV and 132 kV and is further strengthening the transmission infrastructure for evacuating solar power in remote area.

To tap the potential of the emerging revolution in solar energy in Chhattisgarh and to leverage advantage from the National Mission, the State Government has decided to issue a comprehensive "Chhattisgarh Solar Energy Policy 2012".

1. Objectives

The State Government introduces Chhattisgarh State Solar Power Policy, 2012 with the following objectives:

- a) To encourage, develop and promote solar power generation in the State with a view to meet the growing demand for power in an environmentally and economically sustainable manner;



- b) To enhance the private sector participation in solar power generation;
- c) To create a favorable environment for development of solar manufacturing capabilities within the State;
- d) To contribute to long term energy and ecological security of Chhattisgarh with gradual reduction in dependence on conventional thermal energy sources such as coal;
- e) To promote the Off-Grid Solar applications to meet the energy needs of vulnerable section of society residing in far flung area and also to promote Stand-alone system;
- f) Universalisation of access to clean energy;
- g) To encourage Decentralized, Distribution Generation System in the State;
- h) To create opportunities for huge direct and indirect employment in solar generation, manufacturing and related support industries;
- i) To productively utilize the available wastelands/non-industrialized unused land for solar generation;
- j) To create skilled and semi-skilled human resources for the sector;
- k) To encourage innovative projects pertaining to Solar Power Generation.

2. Operative Period

This Policy will come into effect from the date of issuance and shall remain in operation up to 31st March 2017. Solar power plants approved, installed and commissioned during this period alone shall be eligible for benefits of this Policy.

3. Eligible Developers

Any Person, Registered company(s), Central and State power generation/ distribution companies and public / private sector solar power project developers (Solar PV/Solar thermal) and manufacturing units of equipments and ancillaries related to solar power projects shall be eligible for setting up of Solar Power Projects, either for the purpose of captive use and/or for selling of electricity, in accordance with the Electricity Act-2003, as amended from time to time.

4. Target Capacity

State Government endeavors to achieve targeted solar power generation capacity between 500 to 1000 MW by March 2017.

- a) **Grid connected Solar Power Projects for Captive use, direct sale to a licensee or any other person¹ (third party) or a state other than Chhattisgarh State:**

¹ 'Person' as defined under section 2(49) of Electricity Act, 2003



The State will promote Solar Power Developers to set up Solar Power Plants for captive use or sale of power to Third Party/States other than Chhattisgarh.

b) Grid connected Solar Power Projects for sale through Renewable Energy (Solar) Certificate Mechanism:

The State will promote Solar Power Developers to set up Solar Power Plants for sale through RE (Solar) Certificate mechanism. The Power generated from these power projects can be purchased by State DISCOMs at Pooled Cost of Power Purchase as determined by CSERC from time to time. CSPDCL will take a final decision in this regard considering the supply and demand position of power in the State. The Solar Power Developers will sell RE (Solar) Certificates as per the regulations/orders of CSERC or the appropriate regulatory commission.

c) For sale to DISCOMs to fulfill Renewable Purchase Obligation (RPO)

5. Types of Solar Generation Projects

State Government will assist and encourage development of following types of Solar Generation Projects:

a) Grid connected Solar Generation

Grid based solar generation project at appropriate voltage level.

b) Solar Parks

State Government will promote and encourage development of Solar Park, to accelerate the development of solar power generation projects and associated manufacturing facilities, through the availability of large areas of suitable land, provision of common infrastructure – including grid connection for power evacuation, water access, as well as facilitating the permitting process, internal access roads etc.

These Solar Parks may be established at appropriate locations in the state of Chhattisgarh either by private developer on its own or through PPP model on cost sharing basis.

c) Rooftop Solar Power Projects

Solar Power generative projects on rooftop are an important emerging area and the state government may initiate a pilot project in association with Government of India. Incentives provided by MNRE will be made available to eligible Project developers under this scheme.

6. Incentive under Industrial Policy of Chhattisgarh

a) Industrial Policy

The State Industrial Policy 2009-2014 has recognized non conventional sources of power generation as a priority industry. Under this definition, the Industrial Policy inter-alia offers a number of incentives to Solar Power Generation Plants including interest subsidy, fixed



capital investment subsidy, exemption from electricity duty, exemption from stamp duty, exemption/concession in land premium, project report subsidy and technical patent subsidy. Further details can be found in CG Industrial Policy 2009-2014 (www.cg.gov.in).

State Government shall extend these facilities as defined in Industrial Policy 2009-2014 till March 2017.

b) Electricity Duty exemption

All Solar Power projects will be exempted from paying Electricity Duty (ED) on auxiliary consumption and captive consumption within the state.

State Government shall extend the facility of ED Exemption for Solar Power Plant commissioned upto March 2017.

c) If the incentives / benefits mentioned in the Industrial policy are lesser than the solar policy then incentives / benefits mentioned in the Solar Policy will prevail.

7. Additional Incentives

Following additional incentives will be extended to those solar power Developers who commission their solar plant by March 2017. These incentives will be in force for a period of seven years from the date of implementation of the project:-

a) VAT

VAT for all the equipments/material required for solar power projects included in the list Notified by energy department shall be entitled for exemption by the Commercial Tax Department.

b) Open Access for Third Party Sale

If the Open Access is granted to any developer, they shall pay the applicable Open Access charges and losses as approved by CSERC or the central regulatory body, as appropriate, from time to time for sale to third party outside the State.

c) Wheeling and Transmission Charges

Wheeling and transmission charges for sale will be as per CSERC regulations.

d) Cross Subsidy charges

Cross subsidy surcharge shall not be applicable for Open Access obtained for third party sale within the state subject to the industries maintaining their demand within its contracted demand with the DISCOMs. It is not applicable for captive use.

e) Energy Banking Facility

Allowed at mutually agreed terms and wherever required approval of appropriate Electricity Regulatory Commission shall be obtained.



f) REC

All projects developed as per clause 4(a) and (b) will also be eligible for REC benefits. Injection of electrical units into the dedicated grid for its captive use by a solar generation plant shall be considered for issue of REC as per guidelines of CERC.

g) Grid Connectivity and Evacuation facility

The power generated from a Solar Power Project shall be injected as per Grid Code to the nearest sub-station of the CG Transco / Distribution Licensee. The evacuation line from interconnection point to grid substation shall be laid by the CG TRANSCO or DISCOM at the cost of the project developer. However, if the project developer wishes to lay evacuation line by themselves, they can do so without paying the supervision charges to CG TRANSCO (CSPTCL) or DISCOM (CSPDCL). Further, CG TRANSCO DISCOMs will ensure the technical feasibility for evacuation is granted within 21 days of applying.

h) Land for Grid Connected Project

It is the responsibility of the Project Developer to acquire the land required for the project as per policy of the State.

Depending on availability, Government land will be made available to the project developer as per the prevailing State Policy.

Terms and conditions of “State's Model Rehabilitation and Resettlement policy”, as amended from time to time, shall be applicable for acquisition of private land by the government for setting up solar power generation plants.

All the statutory clearances/approvals shall be obtained by the developer of the solar power plant.

l) Renewable Energy Purchase Obligation (RPO) – Purchase of Power

DISCOM(S) will fulfill its duty of meeting RPOs through a tariff based competitive bidding process.

For projects under REC mechanism, state utility will have the option to purchase Solar Power at pooled cost determined by the appropriate Commission from time to time.

8. Time-Frame for Implementation of Project

Developer shall be required to complete and commission the allotted Solar Power Projects within 24 months.



9. Restriction on use of Fossil Fuel

No fossil fuel viz: coal, gas, lignite, naphtha, wood etc. shall be allowed to be used in a solar thermal power project.

If a Solar Thermal Power Generation Plant is installed inside the campus of operating thermal power station then such Solar Thermal Power Generation Plant shall be physically separated with clearly defined independent boundary to avoid any use of fossil fuel.

10. Role of Nodal Agency

The Nodal Agency will facilitate and assist the project developers and will undertake the following activities to achieve the objectives of the Policy:

- a) Carrying out all the tasks related to bidding process on behalf of CSPDCL to fulfill Renewable Purchase Obligation (RPO). This includes the bidding process for solar power projects on land/space available with CSPGCL/CSPDCL and other departments. The Nodal Agency may charge a nominal facilitation charge for providing this service.
- b) Identifying suitable locations and the creation of land bank.
- c) Facilitation of allotment of suitable land/space in control of State Government or its agencies.
- d) Assistance in establishing Right of Way, water supply and connectivity through roads etc.
- e) Develop appropriate manpower skills by tying up with training and educational institutions.

11. Single Window Clearance System

Nodal Agency (CREDA) will act as single window clearance for Solar Power Projects for following activities:

- a) Ensuring all relevant government orders are issued in a time bound manner by concerned departments in accordance with this Policy
- b) Facilitating all clearances, approvals, permissions and consents required from the State Government/its agencies.
- c) Ensuring that all the incentives available to industrial units under relevant State Policies are applicable to the solar power producers.
- d) Ensuring timely provision of evacuation infrastructure for the upcoming solar power plants.



- e) Promoting maintenance of grid-interactive systems so as to ensure fuller utilization of the plant capacity.
- f) Facilitating allotment of land by State Government or its agencies.

12. Empowered Committee

To oversee, monitor and resolve various issues arising out of this Policy, an Empowered Committee will be constituted under the chairmanship of Chief Secretary of the State. The committee shall consist of the following members:

- a) ACS / Principal Secretary/ Secretary, Finance.
- b) Principal Secretary / Secretary, Industries.
- c) Principal Secretary / Secretary, Revenue
- d) Principal Secretary / Secretary, Energy
- e) Managing Director, CSPDCL
- f) Managing Director, CSPTCL
- g) Director, CREDA –Member Secretary

The committee shall meet as and when required. The committee will deliberate and decide on the following issues:

- (i) Monitoring of single window clearance system.
- (ii) Resolution of inter-departmental issues that may arise from time to time.
- (iii) Removal of difficulty for the implementation of this policy.
- (iv) Any other relevant matter.

ACHIEVEMENTS OF CREDA

(As on 30th Sept. 2012)

	No. of Systems Installed	Total Installed Capacity in kWp
• Power Generation		
i. Grid Interactive	02	4000
ii. Power Generation Industries	47	3902
iii. Education Sector	55	2062
iv. Hostel - Ashrams	1563	1387
v. Tourist Centres	25	223
vi. Health Centres	402	1194
vii. Government Sectors	206	3780.5
viii. Police Stations, Chowkies And Base Camps	223	389
ix. Others (Stand alone)	479	235.65
• Solar Pumps (Agriculture & Drinking Water)	525	582.75
• Remote Village Electrification	1496	2569
• Solar Home Lighting Systems	297	132
• Solar Street Lighting Systems	536	40
• Solar Lantern	5741	-
• Biomas Gasifier Cook stove (Community)	824	-
• Solar Water Heating Systems	12 Lakhs	Litre Per Day
• Family Size Biogas Plants	9836	91000 Cu.m
• Institutional Biogas Plants	50	2050 Cu.M.
• Gasifier (Thermal)	36	13.54 mw
• Gasifier (Electrical)	06	750 kw
• Energy Education Parks	06	-
• Biomass Power Generation	28	254.09 MW
• Small Hydro	09	20 MW
• Micro-Hydel	02	42 KW
• Energy Conservation	-	20 Lacs MWh



CHHATTISGARH STATE RENEWABLE ENERGY DEVELOPMENT AGENCY (CREDA)

Dept. of Energy, Govt. of Chhattisgarh

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