

## Draft Jharkhand State Solar Power Policy 2015

### Government of Jharkhand Department of Energy

#### Notification

No. -----

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#### **Preamble:**

In order to reduce the dependence on fossil fuel based generation, it is essential to explore all possible alternative sources of generation. Under these circumstances, the generation based on renewable energy resources as well as adopting energy efficiency measures to fulfil the electricity requirement shall play a significant role in meeting our future demands of electricity.

To achieve a sustainable development route that provides for advancement in economic as well as environmental objectives, the Government of Jharkhand is determined in taking necessary steps to encourage the generation based on renewable energy resources. The State has high solar insolation around 300 days of clear sun and offers good sites having potential of more than 4.5 to 5.5 kWh/m<sup>2</sup>/day, which the State intends to harness to support the energy requirements of the State.

Due to the decline in the upfront capital cost, the cost of generation of solar power generation plant has become competitive with many conventional power generation technologies. It is also witnessed that the consumer tariff in various segments have achieved parity with the cost of generation of electricity generated from solar power plants and consequently, the decentralised mode for generation of electricity has increasingly been accepted by all set of stakeholders. Further with the technological advancement, solar energy applications have been widely accepted in off-grid mode of electricity generation as well as in thermal applications.

Accordingly, the Government progresses to introduce this policy to harness the incident solar insolation on the State and to realise the potential benefit to the environment by deployment of solar plants.

#### **1. Title of the Policy:**

The policy shall be known as the **Jharkhand State Solar Power Policy 2015.**

#### **2. Objectives:**

The objectives of the Policy are as follows:

- a) To encourage participation of Private Sector to set up Solar Power based projects in the State & increase solar power generation to 2500 MW by the year 2020 in a phased manner.
- b) To build a favourable atmosphere for setting up Solar Power projects.
- c) Ensure energy security of the State by a stable and non-polluting means.
- d) To promote local manufacturing facilities which will generate employment in the State.

#### **3. Legislative Framework for Policy:**

Several provisions under the Electricity Act, 2003 mandate the Jharkhand State Electricity Regulatory Commission and the Government to take necessary steps for promotion of renewable energy. The Section 108 of the Act mandates the Government to give directions to the State Commission in the matter of Policy involving public interest. Accordingly, the State Government in exercise of its powers formulates this policy.

#### 4. Operative Period:

This policy shall come into operation with effect from the date of issuance and shall remain applicable for a period of five (5) years and/ or shall remain in force till such time a new policy is issued.

Solar Power Projects (SPP) that are commissioned during the operative period shall be eligible for the incentives declared under this policy, for a period of ten (10) years from the date of commissioning - unless otherwise the period is specifically mentioned for any incentive.

#### 5. Eligible Developer:

All registered companies, Government entities, partnership companies/ firms, individuals and all consumers of Discom(s) will be eligible for setting up of Solar Power Projects within the State for sale of electricity/captive use, in accordance with the Electricity Act-2003, as amended from time to time. The entity desiring to set up Solar Power Project shall intimate the Nodal Agency as per the para (11) of this policy.

#### 6. Minimum Target:

The State shall strive to achieve the objectives of the policy and aim at implementing targets elaborated below, within the Operative Period,

Description	Unit	FY 16	FY 17	FY 18	FY 19	FY 20	Total
Solar Photovoltaic Power Plants	MW	50	200	500	500	750	2000
Rooftop Solar Power Plants	MW	25	50	100	125	200	500
Solar Thermal Power Plants	MW	5	10	10	10	15	50

\*The minimum size of the solar PV power plant at single location shall be 1 MW.

#### 7. Implementation Plan for Utility Scale Power Plants:

The State aims at developing utility scale solar power plants under following segments to realize the minimum targets,

##### **I: Development Solar Power Plants for Sale of Electricity to the Distribution Licensee:**

To support compliance of the renewable (solar) purchase obligation (RPO) target announced by the Jharkhand State Electricity Regulatory Commission, the State Government shall promote development of solar power plants for sale of electricity generated to the Distribution Licensee. The Nodal Agency shall formulate suitable provisions for the allotment of capacity to the project developers and shall organize competitive bidding for the selection of project developers. The Jharkhand State Electricity Regulatory Commission while formulating the regulatory framework shall include necessary provisions to adopt the tariff discovered in the competitive bidding process, if the discovered tariff is lower than or equal to the specified feed-in tariff following regulatory process.

The Jharkhand State Electricity Regulatory Commission shall announce separate feed-in tariff applicable for utility scale solar photovoltaic power plants and utility scale solar thermal power plants, after considering the State specific parameters. The feed-in tariff shall act as a ceiling limit in the competitive bidding process organized by the Nodal Agency.

**II: Development Solar Power Plants for Sale of Electricity to any Person other than the Distribution Licensee:**

The State shall promote development of solar power plants for sale of electricity to any entity other than the Distribution Licensee. The Nodal Agency shall extend its support for implementation of solar power plants under this segment.

The Jharkhand State Electricity Regulatory Commission shall announce suitable provisions for the development of the plants under this category.

**III: Development of Solar Parks:**

The State shall promote development of solar park on non-productive Government land or any other land falling within the area of solar park. State Government will identify suitable non-productive land or any other land for the development of Solar Parks. While formulating the framework for the development of Solar Park, the Nodal Agency shall undertake public consultation and accordingly specify provisions. The Electricity Regulatory Commission shall develop suitable framework to ensure successful development of Solar Parks in the State. The State Government, under this Policy, will help facilitate in building up the necessary infrastructure like power evacuation, water requirements and internal road etc. Solar Park will consists of various Zone viz. Solar Power Projects, Manufacturing Zones, R&D and training centres. The state will extend all facilities and fiscal incentives provided by central Govt. / National Solar Mission to the Manufacturers and Power Project Developers in Solar Park.

Special Purpose Vehicle (SPV) under the Nodal Agency will be established for development of infrastructure and management of Solar Park. The SPV will formulate Policy and Rules in respect of land allotment, sharing of development cost by the solar power producers and manufacturers. The SPV will develop the initial infrastructure from the funds allocated by GoI and GoJ, which will be subsequently recovered from the solar power producers whose projects are located in Solar Parks by levying development charges.

**IV: Development Solar Power Plants under Renewable Energy Certificate Mechanism:**

The State Government shall promote the development of solar power plants under the renewable energy certificate mechanism specified by the Jharkhand State Electricity Regulatory Commission. The Nodal Agency shall extend its support for the accreditation of the power plant and recommending its registration with the Central Agency in a time bound manner. In carrying out its role, the Nodal Agency shall be guided by any directions given to it by the Jharkhand State Electricity Regulatory Commission for the implementation of the framework, from time to time.

**V: Development Solar Power Plants on Canals:**

The State shall promote development of Solar Power Plants on the Canal Top and on the banks of canal, after undertaking its technical feasibility. In addition, the Nodal Agency shall coordinate with the Ministry of New and Renewable Energy for implementation of its scheme announced from time to time.

**VI: Development Solar Power Plants under the schemes announced by Government of India:**

The State Government shall endeavor to extend its cooperation to the project developers participating in the schemes announced by the Ministry of New and Renewable Energy, Govt. of India, from time to time. The Nodal Agency shall actively participate in the discussions/public consultations and arrange & submit the recommendations, in timely manner, to the Ministry of New and Renewable Energy, required for finalization of such

scheme. The Jharkhand State Electricity Regulatory Commission shall also announce suitable framework for the implementation of such scheme, if required, in a time bound manner.

**VII: Development Solar Power Plants under any other scheme of State Government:**

The State shall promote development of Solar Power Plants under any other scheme announced by the State Government, from time to time.

**8. Implementation Plan for Rooftop Solar Photovoltaic Power Plants Connected with Electricity System:**

The State shall encourage implementation of the minimum target specified for rooftop solar photovoltaic power plants, connected with electricity system, under below mentioned segments

**I: Generation and Sale of Electricity to the Distribution Licensee of the State:**

In order to reap the benefits and to enable obligated entities complying with the solar purchase obligation targets specified by the Jharkhand State Electricity Regulatory Commission, the State would encourage deploying rooftop solar photovoltaic power plant for generation and sale of electricity to the Distribution Licensee of the State. The Nodal Agency shall formulate suitable approach, after due public consultation process and organize a competitive bidding for allotment of the capacities to the suitable eligible entities.

The Jharkhand State Electricity Regulatory Commission shall announce separate feed-in tariff applicable to rooftop solar photovoltaic power plants, after considering the State specific parameters. The feed-in tariff shall act as a ceiling limit in the competitive bidding process organized by the Nodal Agency.

**II: Generation and Sale of Electricity to a Person/entity other than Distribution Licensee:**

The State shall promote implementation of solar power plant and sale of electricity generated to a Person/entity other than the Distribution Licensee. The Nodal Agency shall extend its support for implementation of solar power plants under this segment.

The Jharkhand State Electricity Regulatory Commission shall announce suitable provisions for the development of the plants under this category.

**III: Generation, Captive Consumption and injection of surplus Electricity under Net Energy Metering Mechanism:**

The State shall promote development of rooftop solar photovoltaic power plants implemented by any Person/entity for meeting its own electricity requirements and injecting surplus electricity into the distribution system.

A suitable framework for the implementation of net energy metering mechanism shall be specified by the Jharkhand State Electricity Regulatory Commission for the development of plants to promote captive consumption of electricity.

The State shall encourage implementation of grid interactive rooftop solar photovoltaic power plants as under,

**Government/Public Institutions:**

- i) The State Government shall promote deployment of rooftop solar photovoltaic power plants for captive/self-consumption on the offices of the government organisations, government owned or aided hospitals, research institutions, educational institutions, hostels & training institutions, libraries, rest houses, holiday homes, inspection houses etc.

ii) All the aforementioned institutions shall implement grid interactive rooftop solar photovoltaic power plant and generate & consume some percentage of their annual electricity consumption from such plant.

**Private Institutions:**

i) The State Government shall promote deployment of rooftop solar photovoltaic power plants on the premises of residential buildings/colonies/townships, societies, hotels, private guest houses, private transit hostels, private students' hostels, marriage houses, commercial establishments, cinema & theatres, private hospitals, private warehouses, industries etc. All the aforementioned institutions shall be encouraged to implement rooftop solar photovoltaic power plant, of suitable capacity, on the roof of their premises/area, generate the electricity for sale to the distribution licensee or for their self-consumption.

The State Government shall encourage the local urban bodies for making suitable amendments in the existing building bye-laws to encourage rooftop solar photovoltaic power plants. No Distribution losses and charges will be collected from group/ society / individuals by the DISCOMs. Eligible Developers are allowed to avail the relevant subsidies & incentives from MNRE under JNNSM scheme. The eligible subsidy for net metering systems may be processed through JREDA. The sanction & release of the subsidy will be as per the guidelines issued by MNRE from time to time.

The Modalities for implementing the rooftop policy including metering, billing, settlement, payment & technical aspects shall be issued by JBVNL in consultation with JREDA within 30 days from the date of issue of this policy. All Approvals / clearances shall be disposed by respective DISCOMs within 14 days from the date of application. The metering facility will be extended for all eligible developers who intend to setup solar Photovoltaic programme in their premises. Eligible Developers who wish to avail the metering facility will have to apply to DISCOMs on-line. The applicable tariff for solar rooftop projects shall be determined by JSERC.

**9. Implementation Plan for Decentralized & Off-Grid Solar Applications:**

The Government will also promote decentralized and off grid solar applications, to meet the requirements of electricity and thermal energy, as per the guidelines issued by Ministry of New and Renewable Energy, Govt. of India.

To comply with the minimum targets envisaged under the policy, JREDA shall identify priority areas/sectors for deployment of decentralized and off grid solar photovoltaic power plants including solar photovoltaic standalone power plants, solar home lighting systems, street lighting system, solar pumps etc. and take necessary action, in time bound manner, to implement the off grid solar systems in those priority areas/sectors with the approval of the Government.

Further, for the utilization of solar energy for thermal applications, the JREDA shall take necessary action to proliferate its application in feasible sectors including residential (solar water heaters, solar cookers, in-door air heating etc.), commercial & industrial sector (solar cooling, solar air dryers, large scale solar water heaters, large scale solar cooking utilizing solar concentrator technology, process heating etc.).

Jharkhand State Electricity Regulatory Commission shall assess the benefit of the deployment of decentralized and off grid solar application for electricity and thermal applications on the overall electricity system of the State and shall introduce provision of offering suitable incentive to the eligible entities for large scale adoption in different sectors.

## **10. Incentives:**

The following incentives shall be available to the solar plant implemented by the eligible entities, as applicable, during the Operative Period of the policy:

### **A) Exemption from the payment of Electricity Duty:**

Electricity duty shall be exempted for captive consumption, sale to Discom(s) and third party sale provided the source of power is from Solar Power Projects setup within the State.

### **B) Deemed Industry Status:**

All solar plants shall be treated as 'industry' under the schemes administered by the prevailing Industrial Policy of Jharkhand and incentives available to industrial units shall be available to the solar plant developers. In case of any inconsistency between the prevailing Industrial Policy of Jharkhand and Jharkhand State Solar Power Policy, the provisions under the Jharkhand State Solar Power Policy shall prevail.

### **C) Open Access:**

Intra-state Open Access clearance for the whole tenure of the project or 25 years whichever is earlier will be granted as per the JSERC Regulations amended from time to time. In absence of any response or intimation from the Nodal Agency to the generator within 21 days, then such application shall be considered to be deemed open access.

### **D) Exemption from payment of Conversion Charges:**

The implementation of rooftop solar photovoltaic power plant shall be permitted by the State. The residential consumers opting for implementation of rooftop solar photovoltaic power plant under sale to grid shall be exempted from conversion of house tax to commercial tax.

### **E) Exemption from the payment of VAT & Entry Tax:**

The equipment purchased for installation of solar plants shall be exempted from payment of VAT and Entry tax.

### **F) Wheeling Charges:**

Transmission and Distribution charges shall be exempted for wheeling of power generated from Solar Power Projects for only captive use/third party sale within the State.

### **G) Cross Subsidy Surcharge:**

Cross subsidy surcharge shall be exempted for third party sale provided the source of power is from Solar Power Projects setup within the State for a period of five (5) years from the date of commissioning of the Solar Power Plant.

### **H) Banking:**

Banking of 100% of energy shall be permitted for all Captive and Open Access/ Scheduled Consumers during all 12 months of the year. Banking charges shall be adjusted in kind @ 2% of the energy delivered at the point of drawal. The banking year shall be from April to March.

Drawals from banked energy shall not be permitted during five (5) month period from 1st April to 30<sup>th</sup> June and 1<sup>st</sup> February to 31<sup>st</sup> March of each financial year. In addition, drawals of banked energy during the Time of the Day (ToD) applicable during the peak hours, as specified in the respective Retail Supply Tariff Order, shall also not be permitted throughout the year. However, the provisions on banking pertaining to drawal restrictions shall be reviewed based on the power supply position in the State.

Energy injected into the grid from date of synchronization to Commercial Operation Date (COD) will be considered as deemed energy banking.

The unutilized banked energy shall be considered as deemed purchase by Discom(s) at the pooled power purchase cost as determined by the JSERC for the applicable year. Energy settlement shall be done on monthly basis.

**I) Height of the module structure:**

The height of the module structure carrying rooftop solar panels, in addition to the building height, shall not be counted towards total height of the building as permitted by building bye laws.

**J) Contract Demand Reduction:**

Scheduled Consumers shall avail reduction in Contract Demand for a period of five (5) years from the date of commissioning of the project. Scheduled consumers shall have the same meaning as defined in regulations issued by JSERC and amended from time to time.

**K) Third Party Sale:**

Third Party sale within or outside the State of Jharkhand will be allowed as per Electricity Act 2003 and the Orders and /or Regulations issued by JSERC from time to time.

**L) Clean Development Mechanism benefits:**

CDM benefits to the solar power project Developers / Investors shall be as per the provisions specified by JSERC.

**M) Pollution Clearance:**

Solar PV Power Projects will be exempted from obtaining any NOC / consent for establishment under pollution control laws from Jharkhand State Pollution Control Board.

**N) Distribution Losses:**

Distribution losses shall be exempted only for solar power projects injecting at 33 KV or below irrespective of voltage level of the delivery point within the DISCOMs.

**O) Renewable Energy Certificate (REC):**

All projects developed with the above incentives will be eligible for REC benefits subject to applicable regulations/orders of the appropriate commission. Deemed injection into the grid for in-house/co-located solar generation will also be eligible for REC benefits subject to applicable guidelines.

**P) Grid Connectivity and Evacuation facility:**

The power generated from a Solar Power Project shall be injected at an appropriate voltage at the sub-station and/or interconnection point of the State Transco/Discom(s). The Eligible Developer shall bear the entire cost of construction of power evacuation facilities from the project upto the interconnection point and/or upto State Transco/Discom(s) substation.

The Eligible Developer shall abide by the orders, rules, regulations and terms and conditions as approved by the Commission from time to time for operation of Solar Power Projects, power evacuation, transmission and wheeling of energy. Solar Power Projects will be exempted from paying the Supervision charges to State Transco/Discom(s) towards the internal evacuation infrastructure within the project site and upto interconnection point.

State Transco /Discom(s) will dispose the proposals for the technical feasibility for evacuation within 14 days from the date of receipt of application. Any upstream system strengthening requirement shall be borne by State Transco/ Discom(s) on a priority basis.

**Q) Deemed Public Private Partnership (PPP) Status:**

Deemed PPP status shall be provided for projects coming up under category (1) of para (7) of this policy.

**R) Non Agriculture Status:**

Deemed Non-Agricultural (NA) status for the land where Solar Power Projects will be accorded, on payment of applicable statutory fees.

**S) Must run status:**

Injection from Solar Power Projects shall be considered to be deemed scheduled.

**T) Land:**

**(a) Land requirement:** Wherever any Government assistance for land acquisition/ Government land transfer is required for setting up of Solar Power Plant in Jharkhand, the scale for land use will be at the maximum 2 Hectare per MW.

It will be the responsibility of the project developer to acquire the land required for the project. However, in case of land owned by Govt. of Jharkhand, the land allotment shall be done as per the prevailing govt. policy.

**(b) Stamp duty exemption on purchase of private land:** In case the Developer purchase private land for the project, then they will be eligible for any exemption/rebate available as per the prevailing govt. policy.

**11. Role of Nodal Agency:**

Jharkhand Renewable Energy Development Agency (JREDA) shall be the Nodal Agency for the State of Jharkhand.

The Nodal Agency and or the designated offices under the Nodal Agency shall be responsible for following activities:-

a) Announcement of Scheme:

The Nodal Agency shall bring out a comprehensive scheme to implement the targets specified under the policy. The scheme should elaborate the appropriate process for invitation of bids/applications, incentives and central financial assistance, if any, targets, implementation mechanisms etc.

b) Allotment of the Solar Power Capacities:

The Nodal Agency shall, from time to time, undertake the process for allotment of solar power capacities to the project developers. The Nodal Agency in consultation with the related stakeholders shall announce the process for allotment of solar power capacities.

c) Facilitation in Development of Power Plant:

The Nodal Agency shall, facilitate the project developers in arranging right of way, supply of water, obtaining necessary clearances and approvals from different Government departments.

d) Facilitate in obtaining revenue land wherever it is required.

e) Support in establishing Protocols/Procedures for easy adoption of Solar Power:

The Nodal Agency shall also support the distribution licensee in developing the protocols and procedures for metering, connectivity with the electricity system, and power purchase



agreements etc. for easy adoption of rooftop solar photovoltaic power plants by the stakeholders.

f) Identification of Sites for Deployment of Rooftop Solar Photovoltaic Power Plants:

The Nodal Agency shall facilitate the project developers in identifying the technically feasible sites/roofs under jurisdiction of the State Government for deployment of rooftop solar photovoltaic and other small scale solar power projects. The Nodal Agency may charge nominal fee for extending its services. The Nodal Agency shall also encourage deployment of solar power projects on sites/roofs under jurisdiction of private institutions/buildings.

g) Support in availing the Subsidy:

The Nodal Agency shall facilitate the solar plant developer(s) to avail the subsidy available from Central and/or State Government.

h) Amendment in Bye-Laws:

The Nodal Agency shall coordinate with the Housing and Urban Planning Department, identify and recommend necessary amendments in the Bye-Laws to facilitate extensive adoption of rooftop solar photovoltaic power plants.

i) Capacity Building & Awareness:

The Nodal Agency shall organize Capacity Building & Training Sessions for participation by the segment stakeholders. The Nodal Agency shall also take necessary steps in creating awareness among the citizens of the State.

j) Strategy for the development of Solar Segment:

The Nodal Agency shall arrange to formulate a strategy for the overall development of solar segment in the State with special emphasis on creating market for service providers, small and medium enterprises etc. The report shall be submitted for the consideration of the State Government on yearly basis. The Nodal Agency shall also ensure accessibility of quality equipment as per standards specified by appropriate agencies including Ministry of New and Renewable Energy.

k) Coordination with MNRE for Technical Specification:

The State shall follow the technical specifications and standards as specified by the Ministry of New and Renewable Energy, from time to time. The Nodal Agency shall provide its inputs to the Ministry of New and Renewable Energy for specifying standard new or amending existing technical specifications for different component of solar plant (photovoltaic and thermal).

l) Rate Contracts for Solar based applications:

JREDA will utilize its domain expertise of solar from time to time for fixing up Rate Contracts for all solar related applications through open bidding process and circulate the list of empanelled vendors along with the Rate Contract as well as the commercial and technical aspects. This will save the government departments from repetitive process of purchase/ procurement and the Government offices will be free to select any vendor of their choice from empanelled list. This will expedite the solarisation process in Government buildings.

m) Online project clearance:

An online system will be established by the Nodal Agency for acceptance of applications and for providing status updates. The developers will be given a login access for tracking the status updates. All approvals/clearances shall be disposed within 30 days from the date of registration.

The modalities for operating the single window clearance mechanism shall be developed within 30 days from the date of issue of this policy.

## **12. Role of the Jharkhand State Electricity Regulatory Commission:**

The Jharkhand State Electricity Regulatory Commission shall on priority basis, notify appropriate regulatory framework for the promotion and deployment of utility scale solar power plants and grid connected rooftop solar photovoltaic power plants in the State. The regulatory framework shall include the enabling provisions for the implementation of the policy.

The JSERC shall have exclusive jurisdiction on those provisions of this policy which are within its regulatory mandate for management of the Electricity Act, 2003, especially regarding notification of Electricity Tariffs for sale for power, power purchase agreements, wheeling, banking, distribution, transmission loss charges etc. Similarly, the JSERC shall have jurisdiction under the provisions of the Electricity Act, 2003 as regards promotion of non- conventional energy sources, facilities for transmission of energy and sharing of purchase of power amongst Transmission Licensee/ Distribution Licensee etc. Compliances of Guidelines, Directives, Regulations, Rules etc. issued by the JSERC issued from time to time regarding these shall be binding on all concerned parties,

In the event of any dispute in the interpretation of this policy or any terms and conditions of agreement/clauses between the Developer and any state govt. department or Transmission Licensee/ Distribution Licensee, the same shall be referred to the State Government or the JSERC as the case may be.

## **13. Role of State Transmission & Distribution Licensee:**

The State Electricity Transmission and Distribution Licensees shall extend their support and guidance to the eligible entities in installing solar power plants and their connectivity with their electricity system. They shall comply with the regulatory framework specified by the Jharkhand State Electricity Regulatory Commission and provision contained in this Policy.

## **14. Registration:**

- a) Jharkhand Renewable Energy Development Agency (JREDA), Government of Jharkhand shall be the nodal agency for registration and post development activities for the development of the Solar Power Projects in the state. The companies who have signed the MoU with Government of Jharkhand are required to get registration as per provisions of this clause. The Developers/Investor shall submit the following documents for registration:
  - i) Application in the given format;
  - ii) Certified copy of Memorandum & Articles of Association of the company/  
Certified copy of the bye- laws of the registered society;
  - iii) Certified copy of partnership deed;
  - iv) The balance sheet of last 3 years.
- b) In case the project is found to be eligible after evaluation, a demand note for depositing the requisite processing fee will be issued within fifteen (15) days and such Developers will be required to deposit the processing fee (non- refundable) of Rs. 10000/MW or part thereof and get the project registered within a period of fifteen (15) days from the issuance of the demand note; and
- c) In case of failure to submit the processing fee within the stipulated timeline (15 days), the application for registration of the project by such Developer shall be considered cancelled.

**15. Post Registration activity:**

The following documents shall be submitted by the Project Developer:-

- i) Detailed Project Report (DPR);
- ii) Land related document (tagged/identified project site for the projects proposed);
- iii) CPM/ PERT chart (for implementation of the proposed project)
- iv) Water allocation order on the basis of water availability at the project site (if applicable) and geo-referenced map presenting the grid situation for the solar thermal project.

**16. Migration of Solar Power Projects:**

Such companies, who have signed MoU with Government of Jharkhand, before the notification of this policy, may also be given the offer to set up solar power plant for certain capacities, at the weighted average rate of the successful bidders, whether they have been successful or not in the bidding process. Such offer will be made only in the first successful bidding process to be implemented by the State Government after the notification of this Policy. Such capacities to be allotted to such companies shall be the additional capacities than what has been obtained by them (if any), in the bidding process. However, the maximum capacity to be offered to each such company shall not exceed 50 MW or the capacity for which MoU has been signed, whichever is less.

**17. Performance Guarantee:**

*a) Projects for sale of electricity to the Distribution Licensee:* As per the guidelines specified in the qualification/ selection document issued by JREDA for competitive bidding.

*b) For other category projects availing policy benefits:*

The Developer shall submit Performance Bank Guarantee for projects being setup on the government land at the rate of Rs. 2.0 Lac/MW to Jharkhand Renewable Energy Development Agency (JREDA). The Bank Guarantee shall be valid for a period of twenty four (24) months for Solar PV projects and for a period of forty (40) months for Solar thermal projects respectively.

- i. The Bank Guarantee shall be released in stages to the project Developer after evaluating the achievements and project benchmarks.
- ii. In case the project Developer fails to achieve the desired progress and the project is cancelled, the balance remaining Bank Guarantee at the time of cancellation of the project shall be forfeited and en-cashed as penalty. The decision of JREDA shall be final in this regard.
- iii. In case the project cannot be set up for want of an approval from the State or the Central Government, the performance guarantee shall be released. The decision of JREDA shall be final in this regard.

In case the project is set up on private land then developer is exempted from submitting any performance guarantee.

**18. Administrative Approvals:**

Application received as per the provisions shall be examined and accorded approval, if found acceptable by the Govt. of Jharkhand within a period of thirty (30) days from the date of submission of all the documents.

## 19. Post Approval Activities:

- a. Projects for sale of electricity to the Distribution Licensee:** Solar projects under this category will be required to strictly adhere to the timelines as specified in the qualification / bid document issued by JREDA, Govt. of Jharkhand.
- b. For other category projects availing policy benefits:** The project must be commissioned within the timelines mentioned below from the date of the administrative approval. Monitoring of progress of the project shall be done based on the criteria mentioned below

S. No.	Benchmark	Timeline (from zero day)		Percentage refund of performance guarantee (%)
		Solar pv	Solar Thermal	
1	Date of issue of administrative approval	Day 0	Day 0	--
2	Letter of land possession/land use permission/allotment	3 months	3 months	10% (within 15 days of the submission of proof)
3	Power Purchase Agreement	5 months	5 months	20% (within 15 days of the submission of proof)
4	Financial closure	11 months	11 months	30% (within 15 days of the submission of proof)
5	Project Commissioning	17 months	24 months	40% (after 3 months of successful operation from the date of project commissioning)

## 20. Metering Arrangement:

The metering arrangement should comply Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006, Central Electricity Authority (Installation and Operation of Meters) Amendment Regulations, 2010 and Central Electricity Authority (Installation and Operation of Meters) Amendment Regulations, 2014, as applicable.

Metering equipment, as may be stipulated by Jharkhand Bijli Vitran Nigam Ltd. (JBVNL) or by respective Discom, shall be installed at the interconnection point which shall be line isolator of outgoing feeder on HV side of the pooling substation. Developers will install metering equipments at their own cost as per specifications and provisions of JSERC Regulations on metering. All officials of the respective Distribution Company authorized for the purpose shall be allowed access by the Developer to inspect the same. Meters shall comply with the requirements of CEA regulation on 'Installation and Operation of meters.

## 21. Tariff:

- a. Projects for sale of electricity to the Distribution Licensee:** For the projects allotted under tariff based competitive bidding route for sale to Jharkhand Bijli Vitran Nigam Limited (JBVNL) or any other distribution licensee the Power Purchase Agreement will be executed between JBVNL/other distribution licensee and successful bidders as per the provisions of bid/ qualification document on the tariff arrived by the process of tariff-based bidding. However the rates shall not be more than the rates specified by the JSERC.

- b. Projects for Sale of Electricity to any Person other than the Distribution Licensee:** In case of third party sale/captive use/sale to other states other than the distribution licensee, the Power Purchase Agreement will be executed between the Power Producer and the Procurer on mutually agreed rates.

In such cases, a separate Agreement will be executed with Jharkhand Bijli Vitran Nigam Ltd. (JBVNL) for wheeling and banking of power.

- c. Projects for sale of power under Renewable Energy Certificate Mechanism:** In case of solar power projects established under renewable energy certificate mechanism, the Power Purchase Agreement as required, will be executed between solar power producers and the Procurer as per the Regulations/Orders of CERC and JSERC issued from time to time in this regard.
- d. Projects for sale of power under the schemes announced by Government of India:** In such cases, the Power Purchase Agreement will be executed between the solar power producer and the Procurer and/or JBVNL as per Guidelines of MNRE, Govt. Of India.

## **22. Procedure for Interconnectivity with the Electricity System:**

The procedure for interconnectivity of solar power plant with the electricity system of the licensee shall be in accordance with the provisions laid by licensee and approved by the Jharkhand State Electricity Regulatory Commission. The licensee within one (1) month, from the date of publication of this policy under official gazette, shall establish the procedure for interconnectivity of solar power plants its electricity system.

## **23. Financial Arrangement & Support:**

The following financial arrangements shall be available for the promotion of solar power plant,

### **A) Budgetary Support:**

The Nodal Agency shall undertake detailed assessment of the support required for encouraging implementation of targets identified under this policy for implementation of solar plants and submit the fund requirements for consideration of the Government for budgetary support.

### **B) Creation of Green Fund:**

The State Government shall devise creation of a Green Fund through imposition of suitable cess on the consumption of electricity. The fund so created shall be utilized for organizing capacity building and training programme, creating awareness, offsetting the upfront capital cost, interest subvention through Banks and any other aspect deemed necessary for the easy adoption of solar plants in the State.

### **C) Through Private Investment:**

State Government shall attract private investments for installation of solar plants. The Nodal Agency shall facilitate and provide clearances and approvals from concerned departments.

## **24. Monitoring of Parameters:**

All solar power plant developers reaping benefit under this policy shall need to install equipment to monitor solar irradiance, wind speed, ambient air temperature, and electricity generated and injected into the electricity system or self-consumed from such solar power plant. The solar thermal plant developers shall need to install equipment to monitor solar insolation, thermal heat generated and related parameters. The monitoring report shall be submitted to the Nodal Agency on 1<sup>st</sup> of every calendar month for the useful life of the plant through online mechanism. The Nodal Agency shall develop necessary infrastructure to record such parameters.

## 25. Other Provisions:

- a. **Fossil fuel usage:** The usage of fossil fuel (coal, gas, lignite, naphtha, diesel, wood etc.) shall not be allowed in the grid connected solar thermal power projects. Hybrid systems shall be allowed as per the guidelines of the Ministry of New and Renewable Energy (MNRE).
- b. **Project Inspection:** Authorized Representatives of Government of Jharkhand not less than the rank of Executive Engineer shall, with prior written intimation, have the right of inspection of the power project to assess the safety of the project. The Developer shall render all requisite help and assistance in facilitating such inspection.
- c. The Developer shall maintain all records regarding capacity, generation, downtime, with relevant constraints etc. and make available all these records to the inspecting authority for inspection.
- d. **Data monitoring and submission:** All grid connected solar power plants registered with the Energy Department (Government of Jharkhand) will install equipments for regular monitoring of Solar irradiance (including DNI), ambient air temperature, wind speed and other weather parameters and for simultaneously monitoring of the amount of electric power generated from the plant. They will submit this data to the Government of Jharkhand on line-and/or through a report on regular basis (monthly) for the entire duration of Power Purchase Agreement as prescribed.
- e. Once the project is commissioned, the solar power project developer shall be required to submit the monthly and annual generation details duly certified by the concerned distribution/ transmission utility: both in hard copy and in soft copy (online), to Energy Department, Government of Jharkhand.
- f. **Data bank:** Energy Department, Government of Jharkhand will establish and maintain a technical library, a data bank and/ or information centre to collect and correlate information regarding solar energy sources.
- g. **Reactive Power Charges:** In case of drawl of Reactive Power for the Project, necessary charges shall be payable at the rates prescribed by JSERC.

## 26. Solar Purchase Obligation (SPO):

Solar Procurement Obligation (SPO) will be mandatory for commercial consumers with LT Industrial connection with more than 50 kVa connected load and for all HT & EHT consumers. All such consumers have to procure 4% of their power from solar source. All such consumers will have a grace period of one year from the date of notification of this Policy for ensuring the compliance of these SPOs. This will include all such entities having scattered operations within the State but whose cumulative energy requirement is equal to or more than the above like the Telecom Towers. All such consumers have to declare their carbon foot prints twice (1<sup>st</sup> of January and 1<sup>st</sup> of July) a year. They may fulfill their SPO requirement by either of the following mechanism:-

- a) By having captive solar generation with a Discoms certified metering mechanism.

- b) Buying RECs equivalent or more than their SPO from any solar power developer in the State of Jharkhand.
- c) Buying solar power from JBVNL at solar tariffs.
- d) Buying equivalent to or more than their SPO, solar power from any developer in the State of Jharkhand.

All new domestic buildings having floor area equal to or greater than 3000 sft will have at least 100 kw Solar PV system. In case of Housing Societies, 5% of energy usage should be from solar for common amenities. The Off –grid applications shall be promoted for replacement of diesel based generators sets. Non-compliance of the above condition after the grace period of 3 years shall attract penalty in the form of green cess to be decided by the Appropriate Authority.

In the potential categories to be notified like star hotels, hospitals, residential complexes with more than 50 kVA total connected load the use of solar water heating system shall be made mandatory.

#### **27. Solar Manufacturing:**

The Govt. intends to promote solar manufacturing facilities that can develop the solar eco-system and support job creation in the state. The following incentives shall be applicable for new manufacturing facilities and equipments, ancillaries related to solar power projects only.

- i) Priority in allotment of Govt. Land in Solar Parks on long term lease basis
- ii) Exemption from electricity duty as per industrial policy
- iii) Any other incentives provided in the prevailing Industrial Policy of Jharkhand.

#### **28. Establishment of R&D and Training Centers:**

The Govt. intends to promote skill development in the sector of solar manufacturing, solar power project installation, maintenance and research & development in specific application by establishing Energy Research and Management Institute in the state in collaboration with Central Govt. / Private Participation.

#### **29. Empowered Committee:**

**(i)** To oversee, monitor and resolve various issues arising out of this policy, an Empowered committee will be constituted under the chairmanship of the Chief Secretary of the State. The committee will have the following members:-

- |   |            |
|---|------------|
| i. Chief Secretary                                      | - Chairman |
| ii. Secretary /Principal Secretary Urban Development    | - Member   |
| iii. Secretary /Principal Secretary, Energy             | - Member   |
| iv. Secretary /Principal Secretary, Finance             | - Member   |
| v. Secretary /Principal Secretary, Planning             | - Member   |
| vi. Secretary /Principal Secretary, Industry            | - Member   |
| vii. Secretary /Principal Secretary, Irrigation         | - Member   |
| viii. Secretary /Principal Secretary, Revenue           | - Member   |
| ix. Secretary/Principal Secretary, Forest & Environment | - Member   |

- x. Managing Director, Concerned Distribution Licensee – Member
- xi. Deputy Commissioner of Concerned District – Member
- xii. Director, JREDA – Member Secretary

The Chairman of the Committee is empowered to co-opt subject matter expert/s, if required. The Committee shall be authorized to deliberate and decide on aspects related to implementation of this policy on its own motion or on the written representations by the Stakeholders.

The Empowered Committee shall provide its recommendations on:

- a. Approval of the project(s) with capacities more than 50 MW at single location
- b. Resolving key bottlenecks in implementation of solar power plants
- c. Deliberating on aspects to create fund for the development of grid connected rooftop solar photovoltaic power plants
- d. Issues regarding facilitation of framework for interconnection with the network of distribution licensee
- e. Resolve Inter departmental issue(s) that arise from time to time
- f. Any other relevant aspect

**(ii)** For Approvals of Projects with capacity less than 50 MW at a single location, a committee will be constituted under the chairmanship of Principle Secretary / Secretary, Energy Department, Govt. of Jharkhand. The committee will have the following members:-

- i. Secretary /Principal Secretary, Energy : Chairman
- ii. Secretary /Principal Secretary, Finance : Member
- iii. Secretary /Principal Secretary, Revenue : Member
- iv. Secretary /Principal Secretary, Industry : Member
- v. Chairman & Managing Director, JUVNL : Member
- vi. Managing Director, Jharkhand Bijli Vitran Nigam Ltd (JBVNL) : Member
- vii. Deputy Commissioner of Concerned District : Member
- viii. Director, Jharkhand Renewable Energy Development Agency : Member
- ix. Project Director, Jharkhand Renewable Energy : Member Secretary  
Development Agency

### **30. Mid-Term Review:**

State Govt. may undertake a mid-term review of this policy after a period of two years or as and when need arises in view of any technological breakthrough or to remove any inconsistency with Electricity Act 2003, rules and regulations made there under or any Govt. of India policy.

Principal Secretary  
Department of Energy  
Government of Jharkhand



**Abbreviations:**

JBVNL	-	Jharkhand Bijli Vitran Nigam Limited
MNRE	-	Ministry of New and Renewable Energy
JREDA	-	Jharkhand Renewable Energy Development Agency
JSERC	-	Jharkhand State Electricity Regulatory Commission
CDM	-	Clean Development Mechanism
REC	-	Rural Electrification Corporation
RPO	-	Renewable Purchase Obligation
SPO	-	Solar Purchase Obligation
NA	-	None Agricultural
MW	-	Mega Watt
KW	-	Kilo Watt
VAT	-	Value Added Tax
ToD	-	Time of Day
NOC	-	No Objection Certificate