



The Mizoram Gazette

EXTRA ORDINARY

Published by Authority

RNI No. 27009/1973

Postal Regn. No. NE-313(MZ) 2006-2008

VOL - XLVI Aizawl, Wednesday 8.3.2017 Phalguna 17, S.E. 1938, Issue No. 59

NOTIFICATION

No.B.12012/27/2015-P&E, the 24th February, 2017. In compliance with the decision taken by Council of Ministers in its meeting held on 8th Feb. 2017, the Governor of Mizoram is pleased to notify Solar Power Policy of Mizoram 2017 with immediate effect.

This issues with the concurrence of Finance Department vide their I.D No.FIN(E) 481/2016 dt.7.10.2016 and Law & Judicial Department vide their I.D.No.LJD-33/2016/144 dt.18.8.2016.

C. Lalhmachhuana,
Secretary to the Govt. of Mizoram,
Power & Electricity Department.

SOLAR POWER POLICY OF MIZORAM - 2017

1. Preamble

Energy Security is the key to economic growth to any country and state, Fossil fuel such as coal, gas, oil, etc. for conventional power generation is fast depleting and will be exhausted in coming decades. The conventional generation is also the source of greenhouse gas emission attributing to global warming and has adverse impact on climate. Therefore, a global shift towards sustainable renewable energy generation is being witnessed.

India is blessed with abundant solar energy and if harnessed efficiently, the country is capable of producing trillion-kilowatts of electricity. Solar energy is extremely beneficial as it is non-polluting and its generation can be decentralized.

Government of India (Gol) has set for itself an ambitious target of increasing solar capacity to 100 GW by 2022. In order to achieve these targets, Gol is implementing a wide range of regulatory and policy interventions. It is estimated that utility-scale grid parity is expected to be achieved faster than originally estimated and solar power will start aggressively competing with conventional power by 2017.

Mizoram, lying in the tropical region, receives an average solar insolation of about 4.5 kWh/m²/day and has approximately 300 sunshine days. The temperature favors setting up of solar power plants within the State as the State has a cool natural breeze to cool down the plants. The estimated solar potential of Mizoram, as calculated by National Institute of Solar Energy (NISE), is approximately 9.09 GWp.

To tap the potential of the merging revolution in solar energy and to leverage advantage from the Jawaharlal Nehru National Solar Mission (JNNSM) and Deendayal Upadhyaya Gram Jyoti Yojana (DDUGJY) launched by Government of India, the State Government has decided to adopt its own solar policy namely 'Solar Power Policy of Mizoram - 2017'

This policy has provisions which aim at creating an enabling environment for prospective solar power developers to harness solar power in the best possible manner. This in turn is expected to meet the objective of Government of Mizoram to provide competitive, reliable power supply to its consumers and also to ensure a sustainable fuel mix in the long run.

2. Title

The policy shall be known as "Solar Power Policy of Mizoram - 2017"

3. Operative Period

This Policy shall become operative from the date of its notification in the Mizoram State Gazette and shall remain in force until further order.

4. Objectives of the Policy

The objectives of the Policy are as follows;

- o To encourage, develop and promote solar power generation.
- o To develop Mizoram into an investor friendly State.
- o To encourage public as well as private investment in solar power generation.
- o To promote decentralized and distributed generation.
- o To promote grid connected and off-grid solar applications
- o To promote all technologies of harnessing solar energy.
- o To create direct and indirect employment opportunities.
- o To promote R&D and innovations, skill development in the sector.

5. Applicability :

This Policy shall be applicable for all solar energy based power project (Solar PV/Solar thermal) in the State of Mizoram.

a. Grid Connected Projects

For the development of solar power projects under this policy, any individual/Firm/Society/Institution/Registered Company including Public utilities shall be eligible for sale of power to Distribution Licensee/Power & Electricity Department or 3rd party sale and captive consumption.

b. Grid Connected Rooftop Projects

All individual's residential/commercial/institutional/NGOs/ Industrial units/Govt. buildings are eligible to set up solar rooftop projects within the prescribed capacity limit in their own premises as well as third party rooftop. In addition, interested Firms/Registered Companies including Public Utilities shall be eligible to set up rooftop projects on third party roofs.

c. Off Grid Projects

Any individual/party shall be eligible to set up off grid projects.

6. Regulatory Framework

The Electricity Act 2003 read with Tariff Policy 2006, as amended from time to time, mandates the State Electricity Regulatory Commission to set tariffs for renewable energy as well as to issue regulations pertaining to Renewable Purchase Obligation (RPO), and set charges for wheeling, transmission and distribution of electricity.

7. Minimum Programme Targets

The Government of India has set an ambitious target of 100GWp of solar energy generation by 2022. The State Government of Mizoram, in line with the target set by Government of India and to achieve the Solar Renewable Purchase Obligation of 10.5% by end of 2021-22, a minimum target of 80 MW, including Rooftop System, is envisaged. **It would be mandatory for all State Government department/institutions to install Solar Rooftop Systems on the official buildings, wherever technically feasible. All Central Government department/institutions are also expected to install Solar Rooftop Systems on the official buildings, wherever technically feasible.**

8. Grid Connected Solar Power Projects

a. Category 1 : Projects under Government of India

The State will promote Solar Power Projects sanctioned under National Solar Mission/MNRE and Rural Electrification Corporation Limited as amended from time to time. Eligibility criteria shall be as per the respective scheme.

b. Category 2 : Projects under State Government

Projects may be taken up by the State Government on its own, or through nomination basis to CPSUs or under PPP mode based on tariff based competitive bidding.

c. Category 3: Projects under Renewable Energy Certificates (REC) Mechanism

Solar projects set up under the REC mechanism shall be eligible for Policy benefits as allowed under CERC REC mechanism as per the Guidelines/Orders/Regulations issued by CERC/JERC(M&M) from time to time.

d. Category 4 : Projects under Captive Generation

The projects set up under this category shall generate power for captive use and comply with provisions of Section 9 of Electricity Act 2003, the Electricity Rules, 2005 with amendments and orders issued by JERC(M&M) from time to time. The project developer will be allowed to avail REC in compliance with JERC(M&M)/CERC regulations.

e. Category 5 : Projects under Independent Power Producers

Power plants those put up for sale of power to 3rd party constitute this category.

9. Grid Connected Solar Rooftop Projects (SRPs) :

The State Government of Mizoram is committed to promotion of solar rooftop projects on public buildings, domestic, commercial and industrial establishments etc. All incentives provided by Government of India and the State government from time to time shall be extended to grid connected

solar rooftop projects (SRPs). The total capacity targeted under the policy directives for SRPs, including metering, billing, settlement, payment(s) and technical aspects etc. be made available by the Distribution Licensee.

9.1 Eligibility and targets under the scheme

The policy aims to harness the available potential for generating solar power using unutilized roof space, along with promotion of green and clean power to reduce the dependence on conventional source of energy.

All the individuals, residential/commercial/Institutional/Govt. Semi-Govt. building owners, Industrial units are eligible to set up Rooftop Solar Power Plant within the prescribed capacity limit. Eligible project capacity under the scheme will be from 1 KWp and above with/without battery back-up support.

9.2 Capacity

The project site/rooftops at office buildings, commercial buildings, residential complexes etc. can be selected on the basis of total energy requirement of the premises and the area available for installation of roof top Solar PV system.

Through rooftop systems shall be generally connected on LT Supply, large solar PV system may have to be connected to 11KV system. Grid connectivity levels for rooftop systems shall be as per the regulation laid down by JERC(M&M).

9.3 Metering system

Consumers will generate solar power for self-consumption and can feed excess power into the grid through a bi-directional export/import meter. All the equipment to be installed shall be as Indian/IEC standards which shall be notified by the State Nodal Agency. The same could be purchased by the Plant owner or provided by the Distribution Licensee at pre-notified rates. However, net metering shall be implemented by the Distribution Licensee.

9.4 Restrictions on level of overall or local grid penetration

- i. Applicants who desire to install grid connected SRPs are free to choose either net or gross meter option for sale of power and shall apply to the Distribution Licensee through the State Nodal Agency. Projects shall be approved on a first come first serve basis subject to technical feasibility such as availability of roof space, strength of roof and aspect of building etc.
- ii. Net-metering based rooftop solar systems are small capacity systems and can be expected to proliferate fast when the policy and procedures are conducive. The impact and level of proliferation of net-metering based rooftop would have an impact on the local grid which has to address technical, safety and grid security issues arising out of possible reverse flow of electricity in the local grids. Therefore, the cumulative capacity to be allowed for a particular distribution transformer shall not exceed 40% of the rated capacity of the distribution transformer.

9.5 Settlement of Energy/RPO

- a) An eligible consumer's net export of energy, if any, shall be settled through net metering system. In case there is net energy injected in to the grid in a particular billing cycle, it will be credited in units for the next billing cycle. The net credit of units, if any, at the end of the settlement period, usually a Financial Year, 100% of units shall be credited in cash by the distribution licensee to the eligible consumer's account at a tariff determined by JERC M&M.

- b) The quantum of electricity generated from the solar energy system of an eligible consumer and consumed by him shall qualify for accounting towards the Renewable Purchase Obligation (RPO) of such accounting towards the Renewable Purchase Obligation (RPO) of such eligible consumer or the distribution licensee under which he is a consumer if he is either an obligated entity or not under JERC for Manipur and Mizoram (Renewable Purchase Obligation and its Compliance), Regulations, 2010 and its amendments from time to time.

9.6 Option for installation of Solar Rooftop Projects (SRPs)

The following business models can be considered for installing solar rooftop projects :

(a) Solar installations owned by consumer

- i) Solar Rooftop facility owned, operated and maintained by the consumer (s).
- ii) Solar Rooftop facility owned by consumer but operated and maintained by the 3rd party.

(b) Solar installations owned, operated and maintained by 3rd Party

The 3rd party implements the solar rooftop facility and provides services to consumers, combinations could be “

i) Arrgement as a captive generating plant for the roof owners

The 3rd party implements the facility at the roof or within the premises of the consumers; the consumer may or may not invest as equity in the facility as mutually agreed between them. The 3rd party may also make arrangement of undertaking operation and of maintenance of the facility. The power is then sold to the foof owner. *The net surplus energy, if any, can be fed into the grid.*

ii) Solar Lease Model, Sale to Grid

The 3rd party implementing the solar facility shall enter into a lease agreement with the consumer for medium to long term basis on rent. The facility is entirely owned by the 3rd party and consumer is not required to make any investment in facility. The power generated is fed into the Grid and the roof top owner gets a rent.

c) Solar Installations at roofs of Government and its allied buildings/structures

Government and its allied buildings/structure will be eligible to avail benefits under the policy. ZEDA will be the implementing agency for rooftop solar systems in Government Departyments and its allied Institutions. However, subsequent operation and maintenance (O&M) shall be the responsibility of the owners.

10 Solar Off-grid and Decentralized Distributed Generation (DDG)

- i. The State will incentivize decentralized and off-grid applications, including hybrid systems as per guidelines issued by MNRE to meet various electrical and thermal energy requirements for domestic and commercial uses.
- ii. The State will promote setting up of solar power plants for sale of power to individuals through its own distribution system.
- iii. The State will also promote setting up of local solar grid and stan-alone solar systems to provide electricity to remote villages.

- iv. The State will also promote uses of SPV water pumping systems wherever possible for drinking as well as irrigation purposes.
- v. The State will promote uses of small SPV systems, such as: Solar Home Lighting systems, Solar Lanterns, Solar Power Packs etc in places where grid power supply is not available or where there is intermittent power supply or, where grid connection is not cost effective.
- vi. The Agency shall work to create an enabling framework with direct/indirect benefits for replacement of conventional applications with solar powered applications in the State.

11 Ease of Business - Enabling Provisions

In order to encourage solar based generation, the following enabling provisions are available to a developer for case of doing business. However, the Project developer has to ensure that the project is commissioned within the time limit stipulated in the Power Purchase Agreements.

(a) Various concessions allowed by Ministry of New & Renewable Energy shall be allowed to project Developers. Any other incentives or grant available from MNRE shall also be extended to the project developers. An illustrative list of such concessions/incentives presently made available by MNRE is at Annexure 1.

(b) Government of Mizoram shall facilitate purchase of energy generated under this policy through the Power & Electricity Department. There shall be a set of qualification criteria fixed by the Government of Mizoram for the prospective developers of solar projects.).

(c) Transmission and Distribution charges for wheeling of power

The developer shall be laying of power evacuation line from generating station to the nearest substation or interconnection point. The Distribution Licensee will undertake to transmit on its grid the power generated by eligible producer and make it available to the end user or to a third party nominated by eligible producer for sale within the State, at uniform wheeling charge of 2% of the energy supplied to the grid or as determined by JERC M&M, irrespective of the distance from the generating station. However, the third party will have to be HT consumer of the power unless this condition is relaxed specifically by the Power & Electricity Department. In case there is no interconnection between the solar plant and the nearest sub-station, the developer shall be responsible for laying te power evacuation line as per the modalities laid out in Clause 13 of the policy.

(d) Power Scheduling and Banking

The State Electricity Board or the Agency or the Government, as the case may be, will permit electricity generated by eligible producers to be banked for a period up to one year. All energy produced from Solar Power Projects shall be considered as deemed to be scheduled. Banking of 100% of energy shall be permitted for all Captive and Open Access/Scheduled consumers as per the schedule with the Distribution Licensee in year. Banking charges shall be adjusted in kind @ 2% of the energy delivered at the point of drawal. Banked units can be consumed/ redeemed as per mutual agreement with the Distribution Licensee. For captive/third party sale, energy injected into the grid from date of synchronization to open access approval date will be considered as deemed energy banked.

The unredeemed banked energy shall be considered as deemed purchase by the Department/ Distribution Licensee at Average Pooled Power Purchase Cost (APPC) as determined by JERC(M&M) for the year.

(e) Electricity Duty

Electricity duty shall be exempted for captive consumption, sale to Distribution Licensee and third party sale in respect of all SPPs set up within the state. Also, Electricity duty will be waived for the new manufacturing facilities and ancillaries of the Solar Power Projects.

(f) Cross subsidy Surcharge

Cross subsidy surcharges for Solar Power Project (SPP) located within the state and selling power to third parties within the state shall be as determined by JERC (M&M) from the date of commissioning of the SPP.

(g) Bill settlement

All transactions between the Department and the eligible producer involving wheeling, banking or sale of power will be settled on a monthly basis.

(h) Exemption from Demand Cut

A reduction in contract demand to the extent of 50% of installed capacity of the solar power plants shall be permitted by the Distribution Licensee, in case the power plant is not utilizing the Department's grid for supply of power to consumer.

(i) Power Purchase Agreement (PPA)

The Distribution Licensee/Consumer and eligible producers under this policy may enter into a Power Purchase Agreement for a minimum period of 10 years.

However, if any eligible producer intends to enter into Power Purchase Agreement for shorter periods, the Power & Electricity Department will consider such proposal on the merit of the case.

(j) Security Package for Eligible Producer

The Distribution Licensee shall provide facilities of an irrevocable, divisible, revolving and confirmed standby Letter of Credit by any nationalized bank. The amount of the Letter of Credit shall be equal to the expected payment for two months by the Department.

(k) Pollution Control Board Clearances

SPPs using PV or solar thermal technology, being a renewable energy will be given deemed clearances by Mizoram Pollution Control Board.

(l) Open Access

Inter State/Intra-State open access & transmission charges shall be levied to the generator as per JERC (M&M)/ CERC regulations as amended from time to time.

(m) Deemed Industrial status

Eligible producers generating electricity from solar energy will be treated as an eligible industry under the schemes administered by the Industry Department and incentives available to such eligible producers shall be available to solar power producers.

(n) Land for grid connected projects

Government land would be made available to project developers depending on availability.

(o) Entry tax/VAT Exemption

Renewable Energy materials and equipments sold and purchased by Nodal Agency/Department appointed by the Ministry of New & Renewable Energy Govt. of India for the state of Mizoram shall be exempted from payment of Value Added Tax under Mizoram Value Added Tax Act 2005.

(p) Refund of Stamp Duty

The State Government (concerned department) will provide incentive in terms of 100% refund of Stamp Duty for land purchased for setting up solar power project and Stand-alone Solar Power System. Registration charges are payable as per rules.

(q) Indicative Locations

- (i) Land holding Government Departments (demonstration plots of Agriculture, Soil & Water Conservation, Sericulture Departments etc.)
- (ii) Hydro power project areas of Power & Electricity Department
- (iii) Land owned by Village Council
- (iv) Industrial areas
- (v) Any other available land

12. Grid evacuation & evacuation facility

The developer shall be responsible for interconnection arrangement which includes transformer panel, protections, metering etc. at the substation or interconnection point. All the evacuation facilities/infrastructures shall be as per the standard laid down by the Central Electricity Authority or as per the standard being adopted by the State Distribution Licensee. These arrangements shall be in accordance within the regulations of JERC(M&M) or CERC Regulations as amended from time to time. Power & Electricity Department/or the concerned Distribution Licensee in the state of Mizoram may take up the work and maintain the same on cost basis, which are to be borne by the Developer.

13. Provisions under Factories Act, 1948

The grid-connected SPPs setup for sale of power to Distribution Licensee/Captive use/Third Party sale will be registered as factory under the Factories Act, 1948 and the entire process shall be completed within 14 days by Department of Industries of Mizoram. The wages of the labour shall be guided by Mizoram Trade Union Regulation 1992.

14. Nodal Agency

Zoram Energy Development Agency (ZEDA) shall be the nodal agency for implementation of solar power projects under this policy.

ZEDA will be authorized to test all devices/equipments related to solar energy to be used/sale in Mizoram for quality control which are implemented under the Central/State Government scheme or solar power to be sold to State Electricity Licensee.

15. Single Window Clearance System

- a. Nodal Agency (ZEDA) will act as single window clearance for Solar Power Projects for following activities:
- b. Ensuring all relevant Government Orders are issued in a time bound manner by concerned departments in accordance with this policy.
- c. Facilitating all clearances, approvals, permissions and consents required from the State Government/its agencies.

- d. Ensuring that all Policies are applicable to the solar power producers.
- e. Ensuring timely provisions of evacuation infrastructure for the upcoming solar power plants.
- f. Promoting maintenance of grid-interactive systems so as to ensure fuller utilization of the plant capacity.
- g. Facilitating allotment of land by the State Government or its agencies.

16. Project Approval Committee

A 'High Level Project Approval and Monitoring Committee' constituted with the following members will approved and monitor the progress of implementation, including removal of difficulties of solar power projects of capacities larger than 1MWp.

1. Secretary, Power & Electricity Department as Chairman
2. Director, ZEDA as Member Secretary
3. Secretary, Finance Department as Member
4. Secretary, Forest Department, as Member
5. Secretary, Revenue Department, as Member
6. Secretary, Industries Department, as Member
7. Engineer-in-Chief, Power & Electricity Department as Member
8. Representative from solar power developer as invitee, if deemed necessary.

17. Review

The Government of Mizoram reserves the right to review the policy as and when need arises in view of any technological breakthrough or to remove any inconsistency with Electricity Act 2003, as amended from time to time, rules and regulations made thereunder or any related policy of Govt. of India.

ANNEXURE-I

Various Incentives available from the Ministry of New & Renewable Energy (MNRE) Govt. of India, for the year 2016-17.

Off-Grid systems :

<u>Sl.No.</u>	<u>Name of the system</u>	<u>Central Financial Assistance (CFA) for Private/Commercial etc</u>	<u>Central Financial Assistance (CFA) for Government establishment</u>
1	Solar street lighting system (CFL) upto 74Wp	Rs 82/Wp	Rs 247/Wp
2	Solar street lighting system (LED) upto 40Wp	Rs 132/Wp	Rs 396/Wp
3	Solar Home Lighting System/Solar lantern	Rs 82/Wp	Rs 247/Wp
4	Solar power pack/plant)with battery backup) upto 300Wp	Rs 82/Wp	Rs 247/Wp
5	Solar power pack/plant (with Battery backup) 300Wp-10kWp	Rs 49/Wp	Rs 148/Wp

6	Solar power pack/plant (with battery backup), >10kWp	Rs 48/Wp	Rs 128/Wp
7	Solar power pack/plant (with battery backup) upto 100kWp	Rs 26/Wp	Rs 79/Wp
8	Solar street lighting systems through power plant upto 100kWp	Rs 82/Wp	Rs 247/Wp
9	Solar water pumping system (DC Pump) upto 2HP	Rs 47,520/HP	Rs 57,600/HP (under NABARD)
10	Solar water pumping system (DC Pump) >2HP-5HP	Rs 44,550/HP	Rs 54,000/HP (under NABARD)
11	Solar water pumping system (AC Pump) upto 2HP	Rs 41,580/HP	Rs 50,400/HP (under NABARD)
12	Solar water pumping system (AC Pump) upto 2HP	Rs 35,640/HP	Rs 43,200/HP (under NABARD)

Grid System

1.	Micro Grid upto 10kWp	-	Rs 115/WP
2.	Mini Grid > 10-500kWp	-	Rs 99/Wp
3.	Rooftop system 1-500kWp	-	70% of MNRE benchmark cost
4.	Solar Park	-	Rs 20 Lacs/MWp
5.	Unemploy & farmers	-	Rs 50 Lacs/MWp

GLOSSARY

Col	Government
MNRE	Ministry of New & Renewable Energy
State	The State of Mizoram
Policy	Solar Power Policy of Mizoram, 2017
Distribution Licensee	Power & Electricity Department, Govt. of Mizoram
RPO	Renewable Purchase Obligation
JERC(M&M)	Joint Electricity Regulatory Commission for Manipur & Mizoram
CPSU	Central Public Sector Undertaking
REC	Renewable Energy Certificate
CERC	Central Electricity Regulatory Commission
SRPs	Solar Rooftop Projects
SPV	Solar Photovoltaic
Agency/ZEDA	Zoram Energy Development Agency
SPPs	Solar Power Projects
R&D	Research and Development