

DRAFT OF “SOLAR ENERGY POLICY ” (GOA)-2017

**Drafted by Goa Energy Development Agency (GEDA)
for the approval by the Govt. of Goa**

1. PREAMBLE:

Solar energy is the most secure of all energy sources. It is abundantly available. It can be easily converted into electrical energy. Production of electrical power and its easy availability at regulated rates is an established benchmark of development. No major economic activity can be sustained without adequate and reliable sources of power. The challenges of Climate Change and Global Warming resulting from burning of fossil fuels are continuously threatening the world community. Renewable Power generation including Solar Photovoltaic (PV) and Solar Thermal (ST) power / steam / hot water generation offer an environmentally safe and sustainable alternative.

Goa is richly endowed with natural renewable resources for generating electricity with moderate climate and bright sunshine for almost 8-9 months in a year. In view of the fact the State of Goa does not generate its own electricity, excepting under private initiative where power is produced based on use of fossil fuel, the challenge before the State Government is not only to meet the ever growing demand for power but also to progressively increase the share of renewable sources in the energy - mix so as to achieve overall energy security and also to meet the Renewable Purchase Obligation (RPO) as per the % fixed by appropriate authorities from time to time. It can be done by promoting the systematic tapping of the solar energy potential to the maximum. It is expected that in near future the solar PV, and Solar thermal will be set up by both the State Government, Institutions, Agencies and Private Entrepreneurs/ Institutions for the captive consumption as well as for export.

An appropriate policy framework is therefore essential to promote these renewable energy generation initiatives. Therefore, the State Government is pleased to introduce the “**Solar Energy Policy (Goa) -2017**”, as under:

2. TITLE OF THE POLICY:

This policy shall be known as the “**Solar Energy Policy (Goa)- 2017**”.

3. OBJECTIVES:

The state Government introduces the “**Solar Energy Policy (Goa) - 2017**”, with the following objectives:-

- a) To promote use of solar energy for generation of power, steam and hot water for use in industrial, commercial, domestic and other applications. Only the solar PV power generation is considered here.

- b) To promote Private Sector, Corporate Sector and individual participation to harness solar energy for power generation.
- c) To promote investment, competition, efficiency in operation and economy in the field of solar energy undertakings in the State.
- d) To contribute to productive use of wastelands or abandoned mines, canal tops / banks and utilize the open space provided by these sites for Solar Power plants.
- e) To build capacity in the State to initiate and sustain, use and effective management of state-of-art solar energy technologies.
- f) To help the State Electricity Department, Open Access Users within the State and other obligated entities to meet the RPOs.
- g) To enhance skills and create employment opportunities at various levels in the State of Goa.
- h) To spread environmental awareness among the general public.
- i) To promote R&D activities related to efficient use of solar energy applications.

4. LEGISLATIVE FRAMEWORK FOR POLICY:

Several provisions under the Electricity Act, 2003 mandates the Electricity Regulatory Commissions and the Government's to take the necessary steps for promotion of renewable energy. The Section 108 and Section 109 of the Electricity act 2003 mandates the Government to give directions to the State Commission and JERC respectively in the matter of policy involving public interest. Accordingly, the state Government in exercise of its powers formulates its policy.

5. OPERATIVE PERIOD:

This policy shall come into effect from the date of notification in the official gazette in the state of Goa and shall remain in operation up to 7 (seven) years. However, this is subject to modifications as may be made by Government of Goa from time to time.

6. TARGET FOR PROMOTION OF SOLAR ENERGY IN THE STATE:

It is proposed to install 150 MW of solar PV power by 2022 as per the guidelines of MNRE and JERC with effect from the year 2015-16.

7. TYPES OF CATEGORY FOR SETTING UP OF SOLAR POWER PLANTS:

(7.1) Category I: Development of Solar Power Plants for Sale of Electricity to the Distribution Licensee on Private Land

The State will develop SPV Solar Power Plants of 500 KW -10 MW capacity on the Private land for fulfilment of Solar Renewable Purchase Obligation(RPO). Allefforts shall be made to ensure that the entire requirement of solar powerrequired to be purchased by the Distribution Licensee (DISCOM) under RPO, is purchased fromdevelopers situated within the State except the existing capacity of Solar power purchased from SECI/NVVNL. Every year the additional required capacity of solar power plant for the fulfilment of Solar RPO (which increases every year as per the target set by JERC) shall be selected through **“Reverse Bidding”** on the basis of maximum discount offered on the levellised tariff fixed by Joint Electricity Regulatory Commission (JERC) for SPV solar power plants. The entire power from the Solar Power Plant shall be purchased by DISCOMS of Goa at tariff so discovered to meet its Solar RPO obligations. The benefits of the accelerated depreciation or any other benefit available to the developer under any scheme of MNRE/Central Govt. will be availed by developer and bids will be called accordingly.

Developers should identify suitable private land for their projects within the state of Goa.

(7.1.1) All types of land can be utilised for generation of solar power projects. There will be no need for conversion of land for all types of private land including agricultural land for the installation of solar power projects.

(7.1.2) In case the land is found to be used for purposes other than solar energy projects, the land use permission shall be cancelled with immediate effect. The construction carried out by the developer and equipments on such land shall be seized and be treated as vested in the Government of Goa and the penal action shall be initiated for the misuse of the land under the land revenue act or any other act/law in force.

(7.1.3) All the statutory clearances / approvals for land acquisition for implementing the solar energy projects shall be obtained by the developers for the projects.

(7.2) Category II: Development of Solar Power Plants for Captive Use or for Sale of Electricity to any Person other than the Distribution Licensee

The State shall encourage and facilitate Independent Power Producers (IPPs) to install solar power plants for captive use or sale of electricity to any person other than DISCOM or sale of power to DISCOM at Average Power purchased cost under Renewable Energy Certificate (REC) mechanism specified by Central Electricity Regulatory Commission (CERC). 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 JERC for the implementation of the framework, from time to time.

(7.3) Category III: Development of Solar Plants on Government Land

The Nodal Agency shall undertake assessment of non-productive Government land and submit its report to the State Government for the development of Solar Plants on such land. The bidder shall be selected through **“Reverse Bidding”** on the basis of maximum discount offered on the levellised tariff fixed by JERC for SPV solar power plants. The entire power from the Solar Power Plant shall be purchased by DISCOM at tariff so discovered to fulfil Solar RPO obligation. The benefits of the accelerated depreciation or any other benefit available to the developer under any scheme of MNRE/Central Government will be availed by developer and bids will be quoted accordingly.

For setting up of solar Power Plant, maximum land use permission for Government land to the solar power developer shall be 1.5 hectare per MW. It could be reduced in future keeping in time with the changing technology.

(7.3.1) Government of Goa / GEDA in accordance with the existing land revenue rules / law of Goa (which may be amended from time to time) shall identify the Government land owned by Revenue Department, Gram Panchayats, local Comunidade or any other State Government Department. The Government of Goa shall take possession of the land and subsequently issue permission for use of land on lease to the successful developer.

(7.3.2) The Government land shall be provided to the project developer on long term lease for 25 years free of cost for the installation of Solar Power projects. The lease can be further extended for 05 -10 years depending on the continuation of the power generation project.

- (7.3.3) No lease rent will be imposed on developer. The registration charges, stamp duty, etc. will be borne by developer.
- (7.3.4) No change of land use will be required for any type of Govt. land given to the solar power developer.
- (7.3.5) No building permission is required from any local body/PDA etc. for installation of solar power on any land including Government land.
- (7.3.6) The permission for utilization of Government land will be done as per the provision of Goa land revenue rules/ law in force.
- (7.3.7) In case the Government land is found to be used for purposes other than related to the projects, the lease permission shall be cancelled with immediate effects. The construction carried out by the Developer and equipments on such land shall be seized and other assets on the land will be confiscated by Government of Goa. The penal action shall be initiated for the misuse of the land under the land revenue act or any other act/law in force.
- (7.3.8) After completion of lease period, the land shall be handed over to the Government free of all encumbrances.

8. Development of Solar Power Plants on Canals

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

9. Ground-Mounted Solar Power Plants with Net Metering Mechanism

The state of Goa shall promote deployment of ground-mounted solar photovoltaic power plant for captive / self consumption under Net metering mechanism for all eligible consumers of electricity in the area of supply of DISCOM. The maximum solar power generation capacity to be installed by any eligible consumer shall be governed by the eligibility of interconnection with the grid for that eligible consumer.

All the aforementioned consumers shall implement grid interactive ground mounted solar photovoltaic power plant and generate and consume from such plant injecting surplus electricity into the distribution system with Net metering mechanism as per the JERC's "Solar Power - Grid

Connected Ground Mounted and Solar Rooftop and Metering Regulations-2015” and as amended from time to time.

At the end of settlement period, adjusted net export energy surplus shall be purchased by the DISCOM at the “feed-in” tariff applicable to Solar Photovoltaic Power Plant as decided by the JERC.

10. Development of Solar Power Plants under any other scheme of Central or State Government

The State shall promote development of Solar Power Plants under any other scheme announced by the Central Government or the State Government, from time to time. The manner of implementation under this head shall remain as in the Category I & III.

11. IMPLEMENTATION PLAN FOR DECENTRALIZED & OFF-GRID SOLAR APPLICATIONS:

The Government of Goa will promote decentralized and off grid solar applications to meet the requirements of electricity as per guidelines issued by Ministry of New and Renewable Energy (MNRE).

12. IMPLEMENTATION PLAN FOR ROOFTOP SOLAR (RTS) PHOTOVOLTAIC PLANTS WITH GRID CONNECTED SYSTEM:

The Government of Goa will promote Solar Rooftops through the following measures:-

A) Generation and Sale of Electricity to the Distribution Licensee of the State – Gross Metering

In order to reap the benefits and to enable DISCOM complying with the solar purchase obligation targets specified by the JERC, the State would encourage deploying rooftop solar photovoltaic power plant for generation and sale of electricity to the DISCOM of the State. The individuals including commercial users are allowed to go for Gross metering upto 10kW or sanctioned load whichever is lower. The “feed-in” tariff applicable to rooftop Solar Photovoltaic Power Plant as decided by the JERC.

B) Generation, Captive Consumption and injection of surplus Electricity - Net Metering

The State of Goa shall promote development of rooftop solar power plants implemented by any person for meeting its own electricity requirements and injecting surplus electricity into the distribution system with Net metering mechanism as per the JERC “Solar Power -

Grid Connected Ground Mounted and Solar Rooftop and Metering Regulations-2015” and as amended from time to time.

At the end of settlement period adjusted net export energy surplus shall be purchased by the DISCOM at the “feed-in” tariff applicable to rooftop Solar Photovoltaic Power Plant as decided by the JERC.

Although, the individuals including commercial and domestic solar power producers can opt for gross metering upto 10 KW power capacities, however it is left to the individual consumer to opt for Net/Gross metering even for lesser capacity below 10kW. However, this will not apply for Government buildings. All Government buildings will be covered under Net metering mechanism irrespective of load.

C) Group Net Metering

To encourage solar plants on rooftop buildings that cannot consume all of the energy generated locally, DISCOM shall facilitate Group Net Metering, whereby surplus energy exported to the grid from a solar plant in excess of 100% of imported energy at the location of the solar plant can be adjusted in any other (one or more) electricity service connection(s) of the consumer within the State. The purpose of this provision is to help maximize the utilization of rooftop space for solar energy generation for consumer within multiple buildings and service connections.

13. OTHER INCENTIVES FOR PROMOTING SOLAR POWER:

The incentives shall be available to the solar plant implemented by the eligible entities, as applicable, during the operative Period of the Policy:-

A) Stamp Duty

If the developers purchases or take private land on lease or take government land on lease for the generation of solar power projects, then they will be eligible for an exemption of 50% on stamp duty and if they do not install the solar project on this land within the stipulated time period, then the given exemption will be withdrawn and stamp duty for private land will be acquired back with no refund of stamp duty. Recovery will be made with interest @ 18% P.A. as per the procedure and the penal action shall be initiated for the misuse of the land under the land revenue act or any other act/law in force.

B) Exemption from Payment of Electricity Duty and Cess

The Electricity generated from the solar power generating plant and consumed for its own use by any person used for self consumption / sale to third party / sale to licensees shall be exempted from payment of electricity duty and cess as specified by Department of Electricity for a period of the Policy Tenure from the date of

commissioning of the Power plant. Provided the categories exempted from payment of the Electricity duty as specified under the Electricity duty act and/or Rules or any other guidelines, if announced, by the state government shall be applied.

C) Exemption from payment of VAT and Entry tax

The solar equipments purchased for installation of solar plants shall be exempted from payment of VAT and Entry tax. These will not include the mounting structures, civil works, wiring and circuit parts.

D) Banking

The banking of electricity, under which a captive generating solar power plant supplies electricity to the grid with the sole intention of exercising his eligibility to draw back this power from the grid for its own use, shall be as per the directions of JERC.

The Educational Institution which are having long vacations and reduction in consumption of power during these vacation periods will be given banking facility on year to year basis. This will enable them to draw the banked power during the long lean period of rainy season.

All others i.e. individuals, commercial and Industrial establishments will be coming under the JERC regulations for power banking.

E) Wheeling charges

The wheeling of solar power shall be regulated as per JERC regulations from time to time or at 2% of the power generated whichever is less at the time. No wheeling charges for consumption within the state.

F) Height of Module Structure

The height of module structure suitably mounted on the frames/rooftops 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.

G) No approval will be required from concerned Municipal Corporation or other Urban Development Bodies or Panchayats for putting up solar plants in existing or new buildings. The support structure on which rooftop solar panels are installed shall be a temporary structure.

14. NODAL AGENCY

The Goa Energy Development Agency (GEDA), the State Nodal Agency for the Ministry of New and Renewable Energy (MNRE) and Joint Electricity Regulatory Commission (JERC), shall act as facilitator for implementation of “**Solar Energy Policy (Goa) -2017**”.

15. ROLL OF NODAL AGENCY

I. 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.

II. 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.

III. Facilitation in Development of Solar Power Plant

The Nodal Agency shall, facilitate the project developers in Setting up of solar projects including sanctions/ clearances from number of Government agencies/departments. The State Government will provide requisite clearances through a “Single Window Clearance Mechanism”. It will be operated through GEDA.

IV. Identification of Government Land and Facilitation of its Allotment for Solar Power Plant Development

The Nodal Agency shall identify government land and shall coordinate with the Government departments, prepare transparent procedure, take necessary approvals and clearances for the allotment of Government Land to the project developers for the development of power plant.

V. Support in availing the Subsidy

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

VI. 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.

VII. Coordination with MNRE for Technical Specification

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

16. ROLE OF DEPARTEMENT OF ELECTRICITY, GOA

The Department of Electricity shall extend their support and guidance to the eligible entities installing solar power plant and their connectivity with their electricity system. They shall comply with the regulatory framework specified by JERC and provisions contained in this policy only if they are not contradicting the JERC regulations. Its role includes:-

- I.** To provide banking facility for solar energy, incentives in the form of exclusion from open access charges, wheeling charges, T & D loss for solar power.
- II.** To conduct feasibility study for evacuation facility and connectivity with the local grid facility.
- III.** The voltage of evacuation of electricity generated, from the solar power plant shall be governed by the directions of the JERC. The evacuation infrastructure for the solar power plant wherever necessary shall be developed and augmented, by the Department of Electricity as per the JERC regulations in force.
- IV.** Electricity Department will conduct supervision, safety check and extend technical support to Developers wherever the evacuation line is laid from site of power production to the nearest grid connectivity point as per the JERC regulations in force.

17. METERING

The power metering for the solar power generation shall be as per the “Grid Connected / ground mounted and roof top metering regulations 2015 of JERC and its amendments from time to time”.

18. GRID CONNECTIVITY AND SAFETY

The Grid connectivity set up for the solar power plant and its safety shall be as per the Grid Connected / ground mounted and roof top metering regulations 2015 of JERC and its amendments from time to time.

For creation of proper facility for receiving power, the solar power producer shall pay grid connectivity charges as finalized by JERC from time to time to DISCOM of Goa.

19. OPERATION AND MAINTENANCE OF DEDICATED LINES

The erection, operation and maintenance of dedicated evacuation line shall be carried out at the cost of the developer as per applicable technical standards and best practices.

20. TESTING OF INSTALLATIONS, EQUIPMENTS, METERS, ETC.

The testing of installations, Equipment's, meters etc. for the solar power generation shall be done by the Department of Electricity as per the rules in force.

The fees for the above testing shall be applicable as per the rates in force.

21. INSTALLED CAPACITY (POWER GENERATION):

For Roof Top Solar power, the minimum capacity shall be equal to or more than 1KWp but not more than 500KWp at one location owned by one Individual or Entity or a House /Factory/ Warehouse /Government Buildings /Panchayat Bhavan/ Community Center / School / Dispensary / Hospital /Parking shade or place /Solar Plant on elevated structure/ Group Housing Society/ Resident Welfare Society/Market Rooftop or any such entity.

22. ELIGIBLE ENTITIES:

All the individuals, registered companies, business firms, institutions, societies, Central and State Government power generation companies shall be eligible for setting up of Solar Energy Projects under this Policy.

23. PLANT AND MACHINERY:

Only the new plant and machinery shall be eligible for installation under this policy. After commissioning of Solar project (roof top or ground mounted), the installation shall not be allowed to be transferred from one location to another.

The authentic documentary evidence towards new plant and machinery shall be submitted to Goa Energy Development Agency (GEDA).

24. POWER PURCHASE AGREEMENT (PPA)

The terms and conditions for power purchase agreement shall be as per the Grid Connected / ground mounted and roof top Metering Regulations 2015 of JERC and its amendments from time to time.

25. ADMINISTRATIVE APPROVAL:

Applications received as per the provisions shall be examined and accorded approval, if found acceptable by the Government of Goa within a

period of thirty (30) working days from the date of submission of all the documents.

26. TIME FRAME FOR IMPLEMENTATION OF PROJECT:

- i. The solar power developer will set up roof top solar power plant upto 500KW capacity in 180 days from the date of approval by the licensee.
- ii. For ground mounted project, solar power developer can take time upto 365 days from the date of approval.
- iii. Solar power Developer failing to meet these deadlines will have to seek fresh approvals

27. SOLAR PURCHASE OBLIGATION (SPO)

All the HT consumers of the State with sanctioned load of 100KW and more are mandated to generate solar PV power to meet Solar RPO obligation as per JERC (procurement of renewable energy) Regulations 2010 and its amendment from time to time.

28. EMPOWERED COMMITTEE:

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 shall have following members.

Chief Secretary	Chairman
Secretary, NCES	Vice-chairman
Jt. Secretary (Finance)	Member
Jt. Secretary (Revenue)	Member
Chief Electrical Engineer, Department of Electricity	Member
Chief Town Planner, Town and Country Planning Department	Member
Director, Water Resource Department	Member
Director, Department of Municipal Administration	Member
Member Secretary, GEDA	Member Secretary

The Chairman of the committee is empowered to co-opt subject matter experts 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 representation by the stakeholders.

29. POWER TO REMOVE DIFFICULTIES

If any difficulty arises in giving effect to this policy, State Government may issue necessary orders or clarification /interpretation to remove such difficulties either of its own volition or based on representation from stakeholders.

30. AMENDMENTS / RELAXATION / INTERPRETATION OF PROVISIONS OF THE POLICY

Government of Goa will have powers to amend/relax/interpret any of the provisions under this policy.

31. APPLICABILITY

This policy would become effective from the date of its notification in the official Gazette of Government of Goa for a period of 7 years.

32. FEES

a. Application Fees

The applicant shall pay application fees of Rs. 50/-(Fifty) per KW along with application to the distribution licensee as per regulation in force.

b. Processing Fees

Processing Fees for setting up solar power plant. The applicant shall pay processing fees of Rs. 10,000/- (Non-Refundable) for 100 kW and above capacity Solar plant in favour of Member Secretary, GEDA.

AUTHORISED SIGNATORY