

From

The Director,
New & Renewable Energy Department/HAREDA
Akshay Urja Bhawan, Sector-17,
Panchkula

To

1. The Addl. Chief Secretary to Govt. Haryana,
Power Department, Civil Sectt., Haryana,
Chandigarh
2. The Managing Director
HVPNL, Sector 6, Panchkula-134109
3. The Managing Director
UHBVNL, Sector 6, Panchkula
4. The Managing Director
DHBVNL,
Vidyut Nagar, Hisar

Memo No. DNRE/2018/ 3098-3101

Dated: 9/10/2018

Subject: Procedure/Guidelines for approval of MW Scale Ground Mounted/Rooftop Projects/Solar Park for captive consumption or third party sale under Haryana Solar Power Policy 2016/ RE Regulations 2017.

Please find enclosed the Procedure/Guideline for approval of MW Scale Ground Mounted/Rooftop Projects/Solar Park for captive consumption or third party sale under Haryana Solar Power Policy 2016/ RE Regulations 2017 approved by the competent authority for further necessary action.



Project Director
for Director, New & Renewable Energy
Deptt., Haryana/HAREDA, Panchkula

Encl: As above

Endst. No. DNRE/2018/ 3102-04 dated: 9/10/2018

Copy of the above is forwarded to the following for their suggestions, if any please:


1. The Addl. Chief Secretary to Govt. Haryana, Industries & Commerce Department, Chandigarh.
2. The Principal Secretary to Govt. Haryana, Finance Department, Chandigarh.
3. The Legal Remembrance (L.R.), Haryana, Chandigarh


Project Director
for Director, New & Renewable Energy
Deptt., Haryana/HAREDA, Panchkula

Endst. No. DNRE/2018/ 3105 dated: 9/10/2018

Copy of the above is forwarded to the following for information please:

1. The Secretary, Haryana Electricity Regulatory Commission, Sector 2, Panchkula


Project Director
for Director, New & Renewable Energy
Deptt., Haryana/HAREDA, Panchkula

Endst. No. DNRE/2018/ 3106-07 dated: 9/10/2018

Copy of the above is forwarded to the following for information please:

1. PA to Chairman, HAREDA for information of the Chairman, HAREDA please.
2. PA to Director, NRE/HAREDA for information of the Director, NRE/HAREDA please.


Project Director
for Director, New & Renewable Energy
Deptt., Haryana/HAREDA, Panchkula

**HARYANA RENEWABLE ENERGY DEVELOPMENT AGENCY (HAREDA)
(NEW & RENEWABLE ENERGY DEPARTMENT HARYANA)**

Procedure/Guidelines for approval of MW Scale Ground Mounted/Rooftop Projects for captive consumption or third party sale under Haryana Solar Power Policy 2016.

1. BACKGROUND AND INTRODUCTION

Under Haryana Solar Power Policy 2016, there is a provision of installation of the ground mounted/Rooftop solar power plant at any location for captive consumption/sale to third party at any other location within Haryana. The developer firm is to interconnect these plants at 11 KV or above capacity stations. The charges, which have been approved by HERC are exempted for such projects under the Policy.

Renewable Energy Department is the nodal agency for the implementation of the Haryana Solar Power Policy-2016 on behalf of the Govt. of Haryana.

Haryana Electricity Regulatory Commission (HERC) has passed orders vide which Haryana Electricity Regulatory Commission (Terms and Conditions for determination of Tariff from Renewable Energy Sources, Renewable Purchase Obligation and Renewable Energy Certificate) Regulations, 2017 has been approved as Regulation No. HERC/40/2018. The Control Period or Review Period of these Regulations shall be from the FY 2017-18 to the FY 2020-21. Under these Regulations:

- (i) Solar RPO Target has been revised to 8% by the Financial year 2021-22.
- (ii) Wheeling Charges, Cross Subsidy Charges, Transmission & distribution charges and Additional Surcharge shall be totally waived off, for third party sale /Open Access consumers for energy from ground mounted / Roof Top Solar power, commissioned during the control period under these Regulations. This shall be subject to the condition that the solar power is generated and utilized within the State of Haryana and is counted towards RPO of the Distribution Licensee(s). However, Solar Energy purchased or generated by an obligated entity is to be counted towards the RPO of the said entity and not that of the DISCOMs.

Further provided that if such generated power is sold to obligated entities, Distribution licensee shall be eligible for RPO benefits only to the extent the consumed solar power is in excess of the purchase obligation of the obligated entity.

Further provided, that the Distribution Licensee shall be eligible for RPO benefits to the extent of unutilized banked power at the end of the financial year.

- (iii) The waiver shall be applicable to the Captive Solar PV Power for self-consumption as well.
- (iv) **However, the losses, as determined by the Commission, shall be recovered in kind by the Haryana Power Utilities. Further, banking**

charges as per these Regulations, shall be applicable so that the Haryana Power Utilities are not burdened un-reasonably.

- (v) **All the waivers/concessions/banking provided in these Regulations shall correspond to the period of 10 years from the date of commissioning or date of notification of this regulation, whichever is later, for power generated and consumed within the State of Haryana.**

Provided the waivers / concessions /banking shall be applicable till the aggregate installed capacity of 500MW of Solar PV Plants in the State is achieved, where after the Commission shall review the provision of waivers / concessions /banking taking into account the financial impact on the Distribution Licensees.

- (vi) Vide the corrigendum dated 10.08.2018, HERC has further clarified that:
"The cap of 500MW is the aggregate installed capacity of the Solar PV projects commissioned in Haryana for consumption of power within Haryana and availing waivers/concessions provided under these Regulations. Accordingly, HVPNL shall consider grant of connectivity subject to feasibility, date of registration of the project and financial closure.

All developers desirous of availing waivers/concessions under these Regulations shall register specific project with HAREDA. Connectivity for such Solar PV project shall be granted by the Utility provided they are found to be registered on the HAREDA website."

1.1 Preamble

This is a major initiative of the Government of Haryana with active participation from State's Power Companies to promote ecologically sustainable growth while addressing India's energy security challenge. It will also constitute a major contribution by Haryana to National effort to meet the challenges of climate change. The objective of the initiative is to establish Haryana as an active state in solar energy, by creating the regulatory conditions for its large scale diffusion across the state as quickly as possible.

The Programme will be implemented by the HAREDA in close association with the DISCOMs/HVPN.

2. SCOPE AND OBJECTIVES

- (i) The Scope of these Guidelines is to provide the necessary policy framework and mechanism for Registration, Selection and Implementation of MW Scale Ground Mounted/Rooftop solar PV power projects.
- (ii) To enable scaling up of MW Scale Solar power projects thereby leading to economies of scale of projects under Regulation;
- (iii) To facilitate speedier implementation of the solar power projects to be selected to meet the target;
- (iv) To enhance confidence in the Project Developers;
- (v) To create good business model and systems for various State Governments and DISCOMs to take forward; and
- (vi) To facilitate fulfilment of RPO requirement of the obligated entities.

13.7

2.1 The Solar Project Developer (SPD) shall undertake following activities for the development of Solar Power Project:-

- i. Acquiring the land for the Project, obtain statutory & non statutory clearances for the project.
- ii. Carry out site related studies/investigations.
- iii. Road connectivity to land/Tie up with solar park having road connectivity.
- iv. Water availability for construction as well as operation & maintenance (O&M) of power plants.
- v. Flood mitigation measures like flood discharge, internal drainage etc.
- vi. Telecommunication facilities.
- vii. Transmission facility consisting power station (with 220/132/66/33 KV/11 KV switchyard as per requirement) to connect the project with substation of Power Utilities.
- viii. Providing basic facilities such as separate toilets for males & females, office etc. for basic manpower wherever possible during construction period and thereafter.
- ix. Identification of the consumers. All terms & conditions shall be decided mutually by the SPD & Consumers for setting up of the projects and sale/purchase of the solar power.

2.2. Mechanism of Development of Project:

The mechanism of Development of Project is enumerated below:

- i. The tariff to be paid to the developer by consumer will be fixed on mutually agreeable terms.
- ii. The developer will be required to indicate his preliminary estimate of project cost. The project cost will be as per developer's own estimation & declaration at the time of submission of DPR.
- iii. The developer has to arrange his own equity and cost of project.
- iv. The required amount can be raised as loan from any source by the developer.
- v. HAREDA will issue in-principle approval confirming registration of project so that developer will be able to achieve financial closure.
- vi. If the project is transferred or sold to a third party during its tenure (after initial lock-in period of 1 year of commissioning date), the successor will retain full rights to operationalize the PPA with the consumer, which will be under full obligation to honour all the obligations and terms & conditions of the sanctioned project.

3. Process for recommendation of the Solar Power Project

3.1 Total Capacity and Portfolio of Solar PV Technology Projects

- i. The total aggregated capacity of the grid connected solar power projects to be set up by Solar Power Developers on Build-Own-Operate (BOO) basis under these Regulations shall be as per limit fixed by the HERC from time to time. The projects to be selected provide for deployment of Solar PV Technology. However, the selection of projects would be technology agnostic and mono/crystalline silicon or thin film or CPV, with or without trackers can be installed.

Handwritten signature/initials

- ii. Already commissioned projects, commissioned before the issue of RE Regulations-2017, cannot be considered under this scheme. Projects under construction or projects which are not yet commissioned will, however, be considered, in case these projects are not already accepted under any other Central or State Schemes. HAREDA has initiated/forwarded some projects to Power Utilities for issue of feasibility for development of SPV Mega Size projects under Solar Policy 2016. These developers if desirous of availing waivers/concessions under these Regulations shall register specific project with HAREDA.

3.2. Capacity of each Project

The Solar PV power projects are required to be designed for inter-connection with transmission network of STU/ CTU at voltage level of 11 kV or above. Given this requirement, the project capacity shall be at least 01 MW and the maximum capacity of the Project shall be up to 100 MW. The capacity shall mean the AC output at the project bus bar located within project premises. However, if SPD has to install Solar Power Plant in Solar Park, then minimum capacity shall be 250 kWp, while Minimum capacity of rooftop solar project for captive consumption or third party sale under these Regulations shall be of 250 kWp to 01 MW.

3.3. Number of Applications by a Company and Capacity limit

The total capacity of Solar PV Projects to be allocated to a Company including its Parent, Affiliate or Ultimate Parent-or any Group Company shall be limited to 100 MW. The Company, including its Parent, Affiliate or Ultimate Parent or any Group Company may submit application/proposal for a maximum of five projects at different locations subject to a maximum aggregate capacity of 100 MW.

3.4. Request for Selection for Short-listing of Projects

The Solar Project Developers (SPDs) shall submit the project proposal to New & Renewable Energy Department/ HAREDA along with required fees/EMD and Detailed Projects Report (DPR) in the format and as per table of contents prescribed by the MNRE/HAREDA mentioning the evacuation plan like point of injection of the solar power, level of the solar power etc. Time lines of different stages for completion of the project shall also be mentioned.

3.5. Qualification Criteria for Short-Listing of Solar PV Projects

i. Net Worth:

The Net Worth of the company should be equal to or greater than the value calculated at the rate of Rs. 50 Lacs or equivalent US\$ per MW of the project capacity up to 50 MW. For next 50 MW, additional net worth of Rs. 25 Lacs/ MW would need to be demonstrated. To demonstrate fulfillment of this criteria, the Company shall submit a certificate from a Chartered Accountant certifying the Net Worth. For the purpose of counting the net worth the moveable/non moveable assets shall also be considered.

{Note: For the Qualification Requirements, if data is provided by the Project Developer in foreign currency, equivalent rupees of Net Worth will be calculated using bills selling exchange rates (card rate) USD / INR of State Bank of India prevailing on the date of closing of the accounts for the respective financial year as certified by the Project Developer's banker. For currency other than USD, Project Developers shall convert such currency into USD as per the exchange rates certified by their banker prevailing on the relevant date and used for such conversion. }

If the application is submitted by a Consortium the financial requirement to be met by each Member of the Consortium shall be computed in proportion to the equity commitment made by each of them in the Project Company. Any Consortium, if selected, shall, for the purpose of supply of power to consumer, incorporate a Project Company with equity participation by the Members before signing the PPA with consumer. The Project Developer may seek qualification on the basis of financial capability of its Parent Company and/or its Affiliate(s) for the purpose of meeting the Qualification Requirements. In case of the Project Developer being an applicant Consortium, any Member may seek qualification on the basis of financial capability of its Parent Company and /or its Affiliate(s).

- i. Under these regulations, only commercially established and operational technologies shall be promoted to minimize the technology risk and to achieve timely and successful commissioning of the Projects.

ii. Processing Fees/EMD

- a) The SPDs shall submit non-refundable processing fee of Rs. 1.0 Lakh for each Project up to 20 MW capacity, Rs.2.0 Lakh for each project above 20 MW and upto 50 MW capacity and Rs. 5.0 Lakh for each project above 50 MW along with the application/proposal.
- b) Each SPD shall deposit EMD of INR. one Lac per MW in the form of Bank Guarantee valid up to two years and further extendable, if required.

3.6. Approvals

- a) All projects of SPD fulfilling the above conditions would be granted in-principle approval for development and implementation of the project under the Haryana Solar Power Policy 2016/RE Regulations 2017 and amendments thereof from time to time.
- b) Power Utilities shall provide the feasibility of the project within 15-20 days on issue of in-principle approval and has to provide connectivity to the Project on installation of the project. However, if project is not technically feasible on the ground of technical issues, then the Power Utilities will inform HAREDA about non feasibility of the project and the in-principle approval stands cancelled automatically.
- c) After in-principle approval by HAREDA, the SPD has to submit the following documents within 60 days of date of issue of in-principle approval:
 - (i) Proof of acquiring land or agreement to lease/sale between developer & land owner for the Solar Project.
 - (ii) Land requirement shall be 4 acre (Approx.) per MW. However, any developer who may install project in less than 4 acre/MW, then have to provide technological details proving the less requirement of land per MW.

- (iii) Grid Feasibility for evacuation of power issued by Power Utilities.
 - (iv) Financial Sanction letter from bank. However, if project is to be installed on 100% equity, then a certificate from CA shall be provided by the SPD.
 - (v) For availing the incentives/waivers/concessions, SPD who wants to install the project in solar park developed /to be developed by SPPD, has to register the specific project with HAREDA. In such cases, for the proof of land and feasibility, consent/allotment letter from SPPD will be considered.
 - (vi) As no waivers/concessions under the RE Regulations 2017 shall be provided to solar park, the transmission line is also to be laid by the Solar Park Developer at its own cost, the feasibility/connectivity may be issued to the Solar Park by the utilities on issue of NOC by HAREDA.
 - (vii) The SPD has to deposit a refundable Performance Security Deposit (PSD) of Rs. 2.00 Lac per MW for capacity first 50 MW, then Rs. 0.50 Lacs per MW for next 50 MW capacity. The BG submitted as EMD may be adjusted in the PSD. The PSD shall be refunded, if the project will be installed in prescribed time limit or extended time limit. However, if the project will not be completed within time limit then penalty of 20% of PSD shall be levied on delay of first 30 days, 50% of PSD on delay of more than 30 days & up to 60 days, 80% of PSD on delay of more than 60 days & up to 90 days and PSD will be forfeited on delay of more than 90 days and project shall be cancelled after expiry of 100 days, but after the review of the status of the implementation of the project. The delay penalty will be levied for the uncompleted capacity of the project. The PSD will be refunded after successful completion of the project without any interest.
 - (viii) Time period for the Commissioning of the project shall be taken as declared by the Solar Project Developer (SPD) in the DPR at the time of application.
 - (ix) If the SPD will not submit the PSD then the EMD submitted at the time of application shall be forfeited. The EMD will be refunded, without any interest, if project is not technically feasible on the ground of technical issues or if in-principle approval/ final approval will not be issued for the project on technical issues.
- d) The final approval of the solar project shall be issued on submission of the above required document/PSD. If the required documents will not be submitted within 60 days of in-principle approval, the in-principle approval stands cancelled automatically. Extension may be given only in case of force majeure conditions.
 - e) The final approval of the solar project will be given by the committee for the capacity upto which waivers/concessions are allowed by HERC in its RE Regulations 2017 (along with amendments from time to time, if any) on the first come first basis (i.e. who submit the required document as per guidelines first, after issue of in-principle approval, shall be considered first) the second parameter shall be the declared date of completion/installation of the project.
 - f) The projects which have been initiated already by HAREDA, before the issue of the orders of HERC, shall be considered first, if the work of installation/development of site has been started, but only after completing the documents as per these guidelines and considered as first lot.
 - g) The projects which have been received after the issue of orders by HERC (i.e. after 6.7.2018) till the date of issue of these guidelines shall be considered in second lot but only after completing the documents as per these guidelines.

RBW

- h) Following shall be the committee for evaluating/examining the project proposals on the prescribed criteria for in-principle approval/final approval:

(i) Chairman (HAREDA)	: Chairman
(ii) Director (NRE/HAREDA)	: Member
(iii) Project Director (NRE)	: Member
(iv) Scientific Engineer (A)	: Member
(v) Scheme-in-Charge (NRE/HAREDA)	: Member
(Note: any three members shall be present in the meeting)	

3.7 Waiting List

A waiting list of up to 1000 MW over and above the limit fixed by the HERC for providing waivers/concessions may be maintained by HAREDA up to date of Financial Closure. HAREDA may allocate projects to the waiting list developers. Only developers who agree to be in waiting list will be kept there. HAREDA will retain EMD BGs for the waiting list developers.

4. Other terms & conditions:

- flmz*
- a) The capacity of solar project will not be changed/increased, However variation of minus 10% of capacity may be accepted. The mentioned capacity of the project will be treated as AC capacity.
 - b) The solar project is to be completed within the time lines as given by the Developer at the time of submission of the project, i.e. date of declaration of completion of project at their end in the format. The time shall be counted from the date of issue of in-principle approval till the installation of the project ready to inject the power into the grid. The delay on the part of Power Utilities in erecting the grid or for providing connectivity will not be counted as delay in installation of the Project.
 - c) All the waivers/concessions/banking provided under Haryana Solar Power Policy 2016 with amendments from time to time and /or RE Regulations 2017 with amendments from time to time shall corresponds to the period of 10 years from the date of commissioning for power generated and consumed within the State of Haryana. However, the incentives/ waivers/concessions under Haryana Solar Power Policy/RE Regulations 2017 will be provided to first commissioned 500 MW or till the achievement of the limit fixed by HERC from time to time.
 - d) If the project is not completed within the time limits (plus penalty period of 3 months) of In-principle approval, then the approval may be cancelled and the grid connectivity allotted may be given to other. Extension may be given only in case of force majeure conditions.
 - e) Part commissioning of the Project shall be accepted by HAREDA subject to the condition that the minimum capacity for acceptance of part commissioning shall be 1 MW and in multiples thereof. In such cases penalty of delay, if any, shall be imposed on uninstalled capacity on prorated basis.
 - f) The firm will not claim Central Financial Assistance (CFA) for setting up of this solar park/solar project.
 - g) These projects are to be set up as per latest standards & specifications of MNRE, GOI/IEC/BIS wherever applicable.
 - h) Transfer of solar project to another SPD will not be allowed up to one year of the actual Commissioning Date of the solar project.

- i) Group captive installation of solar project is allowed for which the group captive guidelines shall be followed.
- j) Only new plant and machinery shall be allowed under this policy.
- k) The plant should be designed for inter-connection with the transmission network of State Transmission Utilities (STU) at voltage level of 11 KV or above. The Project Developers should indicate to the transmission licensee the location [Village, Tehsil and District, as applicable] of its proposed project.
- l) If SPD have to connect the project to Central Transmission Utility (CTU), then approval of MNRE, GoI will be required and exemptions/incentives under Haryana Solar Power Policy 2016 with amendments from time to time and /or HERC Regulations 2017 with amendments from time to time may not be provided.

m) Report of generation

- All project developers shall be required to submit monthly reports with regard to parameter like energy generated, revenue earned, power factor and plant load factor achieved, reasons for non-achievement of full generation and any other information so called for by Renewable Energy Department/HAREDA/Power Utilities so as to maintain and update data bank on solar power generation in the state and also for the purpose of monitoring of generation under RPO regulations.
- n) The Haryana Solar power Policy 2016/RE Regulations 2017 with amendments from time to time shall be applicable.
 - o) For extending the time period upto one month, Director (NRE/HAREDA) will be the competent authority while Chairman (HAREDA) will be the competent authority for extending the time period beyond one month.
 - p) Amendments/ Relaxation/ Interpretation of provisions of the Policy: Secretary to Govt. of Haryana, Renewable Energy Department shall have the powers to amend / relax / issue clarification, if any, on any matter related to interpretation of any provisions these guidelines.
 - q) The projects developers are required to obtain necessary clearances as required for setting up the Solar PV Power Projects.
 - r) The scheme will be implemented through HAREDA in association with DISCOMs.
 - s) The Project Developers are required to complete the project up to bus bar level in line with the timeline given in the guidelines. In case, the Project Developer refuses to execute the work within the stipulated time period, the Bank Guarantees towards EMD shall be en-cashed by HAREDA as penalty. In case the Project is not approved, HAREDA shall release the Bank Guarantees within 30 days of the issue of in-principle approval to selected Projects. All the Bank Guarantees shall be valid for a period of 24 months from the date of issuance of in-principle approval of the Projects.

t) Minimum Equity to be held by Project Promoter

- i. The Company developing the project shall provide complete information in their bid against RfS about the Promoters and their shareholding in the company indicating the controlling shareholding.
- ii. No change in the shareholding in the Company developing the Project shall be permitted from the date of submitting the RfS till the execution of the Project.
- iii. After execution of Project, the controlling shareholding (controlling shareholding shall mean more than 50% of the voting rights and paid-up share capital including fully, compulsory and mandatory convertible Preference shares/Debentures) in the Company/Consortium developing the project shall be maintained for a period of (1) one year after

commencement of supply of power. Thereafter, any change can be undertaken under intimation to HAREDA.

- u) SPD shall allow to inspect the project by HAREDA officers or by any other officers of the State /Central Government whenever has to visit the project.

5. Definitions

"Affiliate" shall mean a company that, directly or indirectly,

i. controls, or

ii. is controlled by, or

iii. is under common control with, a Company developing a Project or may be individual/company/firm/group of companies or a Joint venture/Consortium of maximum 4 partners having minimum 51% share holding of leading partner.

The grid connected solar project developer(s) shall provide the information about the Promoters and their shareholding in the company, indicating the leading shareholder. No change in the leading shareholder, developing the Solar Power Project, shall be permitted from the date of submitting the application and till one year of execution of the project. This shall not be applicable to the Solar Power Projects developed by the public limited companies. Thereafter, any change may be undertaken only with information to New & Renewable Energy Department/HAREDA.

"Company" shall mean a body corporate incorporated in India under the Companies Act, 1956 or the Companies Act, 2013 as applicable.

"Financial Closure or Project Financing Arrangements" means arrangement of necessary funds by the Project Developer either by way of commitment of funds by the company from its internal resources and/or tie up of funds through a bank / financial institution by way of sanction of a loan.

"Group Company" of a company means (i) a company which, directly or indirectly, holds

10% (ten percent) or more of the share capital of the company or (ii) a company in which the company, directly or indirectly, holds 10% (ten percent) or more of the share capital of such company or (iii) a company in which the company, directly or indirectly, has the power to direct or cause to be directed the management and policies of such company whether through the ownership of securities or agreement or any other arrangement or otherwise or (iv) a company which, directly or indirectly, has the power to direct or cause to be directed the management and policies of the Company whether through the ownership of securities or agreement or any other arrangement or otherwise or (v) a company which is under common control with the company, and control means ownership by one company of at least 10% (ten percent) of the share capital of the other company or power to direct or cause to be directed the management and policies of such company whether through the ownership of securities or agreement or any other arrangement or otherwise.

Provided that a financial institution, scheduled bank, foreign institutional investor, non banking financial company, and any mutual fund shall not be deemed to be Group Company, and its shareholding and the power to direct or cause to be directed the management and policies of a company shall not be considered for the purposes of this definition unless it is the Project Company or a Member of the Consortium developing the Project.

"Inter-connection/Delivery/Metering point" shall mean the point at 11 kV or above where the power from the solar power project is injected into the CTU/STU transmission system (including the dedicated transmission line connecting the power project with the CTU/STU system). Metering shall be done at this interconnection point where the power is injected into the CTU/ STU system i.e. the Delivery point. For interconnection with grid and metering, the developers shall abide by the relevant CERC Regulations, Grid Code, and Central Electricity Authority (Installation and Operation of Meters) Regulations, 2006 as amended and revised from time to time.

"Parent" shall mean a company, which holds at least more than 51% equity either directly or indirectly in the Project Company or a Member in a Consortium developing the Project.

"Pooling Point" shall mean a point where more than one solar PV projects may be connected to a common transmission line built and operated by the developer or any third party or by STU on behalf of the developer. This common transmission line may further be connected with the interconnection/metering point. In this case, metering will be done at the interconnection point along with subsidiary meters at the pooling point to determine the generation by each project.

"Project" is defined by separate points of injection into the grid at interconnection/ metering point or in case of sharing of transmission lines by separate injection at pooling point. Each project must also have a separate boundary, control systems and metering.

"Solar PV Project" means the Solar Photo-Voltaic Power Project that uses sunlight for direct conversion into electricity through Photo-voltaic technology.

"Technology Partner" shall mean an entity from which the developer proposes to take technology support. This entity can be a member in more than one developer Consortium provided that it does have minimum 10% of equity commitment in each Consortium;

"Ultimate Parent" shall mean a company, which owns at least more than fifty percent (51%) equity either directly or indirectly in the Parent and Affiliates.

fb.2

TABLE OF CONTENTS FOR DETAILED PROJECT REPORT FOR SOLAR PROJECT

EXECUTIVE SUMMARY

- Solar Project Developer and Ownership (Shareholders)
- Location & Approach Roads
- Size of the Land
- Total Solar Power Capacity to be Developed (MW_{AC})
- Plot Sizes and Capacity Planned as per plot sizes
- Transmission Infrastructures to be constructed
- Road infrastructures to be constructed
- Water source & infrastructures to be constructed
- Green belt to be planted
- Common facilities to be developed
- Corporate Social Responsibility (CSR) Activities, if applicable
- Environmental (Endangered Fauna And Flora Being Affected) and Social Impacts (Displacement of people and livelihoods)
- Total cost of development of solar project envisaged
- Estimated cost of solar power (per kWh) in the project
- Time schedule for execution of the solar project.
- Availability of transmission capacity up-to destinations for both within state and interstate. If any capacity augmentation activity in external network may be required and connectivity details
- Socio economic value (number of jobs to be created during the construction of the solar project and during operation & maintenance; number of jobs to be created during the construction of the solar project and during the operation & maintenance; potential avoided CO₂ emissions)

2. PURPOSE AND SCOPE OF REPORT

- Introduce the concept of solar project
- Brief description of the solar project being planned
- Purpose of the DPR

3. SOLAR SECTOR OVERVIEW

- Include briefly the PV technologies.

4. PROJECT DETAILS

- Land size
- Total power capacity (in AC) of the solar project
- External Transmission infrastructure requirements, capacity already available, augmentation required up to target destinations.
- Road infrastructure requirements

- Water pipeline/supply/reticulation & recirculation requirements, if any
- Common facilities planned
- CSR activities, if any

4.1 SOLAR PROJECT LOCATION AND LAND OWNERSHIP

- Location and Approach
- GPS coordinates (or UTM) of the boundaries of the land
- Proximity of rail, port, major highways and major cities
- Land nature (Government land, Private Land, Assigned land etc.)
- Land ownership status (data from the collector's office) including any land to be purchased or leased (clearly marked in the drawing with measurements and scales)
- Land Acquisition process
- Google image with the boundaries
- Auto CAD or technical drawing with the topography

4.2 SOLAR IRRADIATION AND WEATHER DATA

- Include average monthly GHI from the nearest met station or the MNRE network of SRRA stations or other reliable sources
- Include ambient temperature, wind speed, wind direction, humidity and rainfall

4.3 ANNUAL ENERGY YIELD ASSESMENT

- Simulation using reputed PV software
- Orientation and tilt angle of solar PV modules
- Capacity Utilization Factor (CUF)
- Annual degradation

4.4 HYDROLOGICAL STUDY

- Water requirements for the project, green belt, common facilities, CSR activities.
- Water availability: if boreholes: ground extraction potential to be investigated; if canal, water allocation to be investigated; if other source to be stated.

4.5 INFRASTRUCTURE DEVELOPMENTS

4.5.1 ELECTRICAL INFRASTRUCTURE

- Electrical interface point
- Existing electrical infrastructure (load of existing substation and lines)
- Internal Transmission infrastructure
- External Transmission infrastructure requirements, capacity already available, augmentation required up to target destinations.

4.5.1.1 CONTROL INFRASTRUCTURE

- Facility for gathering data on monitoring, forecasting, scheduling & dispatching for submission to the load dispatch center.

- Metering and connectivity arrangements as per CEA guidelines

4.5.2 ROAD INFRASTRUCTURE

- Existing and/or upgradation of road infrastructure required (impact during construction)
- New road infrastructure required (minimum 10 meters with shoulder for main access roads and 7.5 m for secondary roads)

4.5.3 WATER INFRASTRUCTURES

- Water supply provisions and needs (consider 2 to 3 liters per m² of modules to be installed; 1 washing per month, 12 months per year; for states/regions that are water starved or water depleted, reduction to the value above should be considered and described; higher number of washings must be thoroughly justified)
- Water interface point
- Existing water sources (quantities and sustainability of the extraction potential)
- If extraction from public canal, allocation for power sector and solar power to be mentioned
- Planned water reticulation (this is always recommended and if not followed, it must be justified)
- Planned water harvesting, storage (if considered)

4.5.4 GREEN BELT

- Determination of prevailing winds (directions and speeds)
- Plan for the green belt (indicating its location, suitable types of trees, number of trees, water needs and maintenance needs)

4.5.5 COMMON FACILITIES

- Lighting (Required)
- Solar Radiation Resource Assessment station (may be installed if no station is available within 10 km)
- Drainage System (required)
- Fencing (required)
- Construction of offices, housing and common building infrastructure (optional)
- Security (optional)
- Telecommunication infrastructures (required)
- Medical facilities (optional)
- Warehouses (required)
- Waste disposal and liquid sewage treatment plant
- Solid waste collection, recycling and storage (required)
- Any other envisaged

5. SOLAR PROJECT DEVELOPMENT

5.1 SOLAR POWER PROJECT DEVELOPER (SPD)

- Details of SPD
- Shareholders of the company
- Stakeholders involved

5.2 TIME SCHEDULE OF IMPLEMENTATION Activity-Time

Schedule to be provided in respect of the following milestones

- Preparation Detailed Project Report (DPR)
- Land acquisition
- Financial Sanction & Closure
- Electrical infrastructures
- Road infrastructures
- Water infrastructures
- Telecommunication infrastructures
- Completion of all above works
- Commissioning of the solar project

6. INDICATIVE ENVIRONMENTAL & SOCIAL IMPACTS

6.1 ENVIRONMENTAL IMPACTS (Positive and negative)

- Environmental positive impacts (on fauna and flora)
- Environmental negative impacts (on fauna and flora)

6.2 SOCIAL IMPACTS (Positive and negative)

- Social Impacts (positive)
- Social impacts (displacement of people and livelihoods)

7. STATUTORY & LEGAL FRAMEWORK

- Relevant solar policy from the State
- Compliance of the solar project with the solar policy
- All Statutory Clearances, Licenses, permissions required for development solar project and time frame (list them and the agencies issuing them)
- List of clearances/licenses/permissions to be obtained by SPDs and issuing agency

8. PROJECT FINANCIALS

- Explain the methodology to be followed

8.1 SOLAR PROJECT- COST ESTIMATES

- Cost estimate including cost of the land, electrical infrastructure, road, street light, Admin Building and other infrastructure, green belt, common facilities etc.
- Summary of project cost under essential and optional activities heads
- Assumed equity returns for the solar project development
- Determination of the one-time charges, the yearly O&M charges, any other charges

8.2 FINANCIAL VIABILITY

- State policy initiative for solar promotion leading to bankability
- Equity participation of the JV company of the SPD
- Assumptions
- Revenue & Expense Timelines
- Capital cost & Project IRR

9. SOCIAL-ECONOMIC IMPACT

- Estimates of the job creation potential during the solar project construction
- Estimates of the job creation potential during the solar project operation and maintenance
- Estimated reduction of CO₂ emissions

Annexures

- General Lay Out Plan of Project
- Land Drawing (Google Map preferred)
- Infrastructure Details
- Internal Power Map
- Substation Drawing/Single Line Diagram
- External Transmission Link Drawing (Single Line Diagram)
- Power Evacuation System Design

Application Format for Proposal for Solar Project

1.	Name of the State	HARYANA
2.	Name of the Solar Power Project	
3.	Capacity of Project MWac	
4.	Location of the proposed Project	
5.	Name of the Solar Project Developer (SPD)	
5.1	Contract persons from SPD	
	i) Name & Designation	
	ii) Telephone/Mobile No:	
	iii) Email.ID	
5.2	Details of SPD:	
	i) Website:	
	ii) Telephone/Mobile No:	
	iii) Postal Address	
	iv) Email.ID	
6.	Whether SPD is a JVC? If yes , is JVC formed?	
	Details of JVC	
6.1	Name of Parent / Ultimate Parent/ Affiliate/ Group Company	
6.2	Details of capacity of solar projects proposals/ allotted/applied/ submitted for sanction by the developer including Parent, Affiliate or Ultimate Parent-or any Group Company shall be limited to 100 MW. The Company, including its Parent, Affiliate or Ultimate Parent-or any Group Company.	
6.3	Total Number of solar projects proposals/ allotted/applied/ submitted for sanction by the developer including Parent, Affiliate or Ultimate Parent-or any Group Company shall be limited to 100 MW. The Company, including its Parent, Affiliate or Ultimate Parent-or any Group Company and details thereof.	
7	Land Details	
7.1	Area of Land identified (in acres): a) Government land: b) Assigned land: c) Private land, if any:	
7.2	Area of land acquired: a) Government land: b) Assigned land: c) Private land:	
8	Water Availability Details	
8.1	Whether source of water readily available for the project? If yes, give details. If no, then plan to make water available for the solar park.	

9	Approach Road	
9.1	Whether approach road is available up to the site? If not, then what is the approx. distance of the approach road from the proposed site? The plan for road connectivity up to the proposed site.	
10	Power Evacuation Infrastructure	
10.1	<p>Is spare capacity already available in existing nearest sub-station, then capacity that can be evacuated</p> <p>i) At 400kV, _____ MW, Distance from site _____ Kms</p> <p>ii) At 220 kV, _____ MW, Distance form Site _____ KM</p> <p>iii) At 132 kV, _____ MW, Distance form park _____ kms</p> <p>iv) At 66 kV, _____ MW, Distance from site _____ kms</p> <p>v) At 33 kV, _____ MW, Distance form site _____ kms</p> <p>vi) At 11 kV, _____ MW, Distance form site _____ kms</p>	
10.2	Plan for evacuation of solar power form the proposed Solar Project : thorough STU or CTU	STU/CTU
10.3	Name of Substation for evacuation of Solar Power	
10.4	Distance of Project Site from Substation (in KM)	
11.	Timelines:	
11.1	Time period for Land leveling	Within _____ of Days of in-principle approval
11.2	Time period for Installation/commissioning of project ready to inject the solar power into the Grid	Within _____ of Days of in-principle approval
11.3	Time period for commissioning of project after Grid Readiness	Within _____ of Days of Grid Readiness
12.	<p>Enclosures:</p> <p>i) Site map.</p> <p>ii) Satellite image, If available</p> <p>iii) Location of site on map of state.</p> <p>iv) Other relevant documents.</p> <p>v) Connectivity permission issued by STU, if any.</p>	
13.	Network	
13.1	Network Certificate issued by CA	

14	Processing Fee: (Details of Demand Draft)	
15	Earnest Money Deposit (EMD):	
	Details of Bank Guarantee:	
	Name of Bank	
	BG Valid Up to	
	Sr. No. & date of BG	

Date:

Signature of authorized person
with seal of the SPD

**Format for submitting the Documents after in-principle approval of the
Solar Power Project for final Approval**

1.	Name of the Solar Project Developer (SPD)	
2.	Name of the Solar Power Project	
3.	Capacity of Project MWac	
4.	Location of the proposed Project	
5.	Total land required of the project	
6.	Proof of acquiring Land (Agreement to lease/Agreement to sale/ ownership of land)	
7.	Grid Feasibility letter for evacuation of the Power issued by Power Utilities, if project is not installed in Solar Park	
8.	Financial Sanction letter issued by Financial Institution or CA certificate if project is to be installed on 100% equity.	
9.	In case Project to be set up within the Solar Park, then allotment letter issued by Solar Power Park Developer (SPPD)	
9.1	Name of Solar Power Park Developer (SPPD)	
9.2	Grid Feasibility letter issued by Power Utilities to the Solar Park	
10.	Details of Performance Security Deposit (PSD)	
	BG submitted as EMD	
	BG of Additional amount (in addition of EMD)	

Date:

Signature of authorized person
with seal of the SPD