

Legal Aspects of Agriphotovoltaics in India

Imprint

Commissioned on behalf of

Ministry of New and Renewable Energy (MNRE), Govt. of India
Federal Ministry for Economic Affairs and Climate Action (BMWK), Govt. of Germany

Commissioned by

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Content

This consolidated report assesses the current legal framework in selected states of India in the context of 1-10 MW agriphotovoltaic projects. The major focus lies on land regulations and how they influence the status of land-use category, probable change in tax incidence for farmers and developers, finance availability for project development and permit requirement.

Version: March 2022

Design and Layout: Aspire Design

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Foreword

A recent study by Fraunhofer ISE has found that only 1% of India's agricultural land converted into 450kWp/ hectare of agriphotovoltaics (AgriPV) will add an astonishing additional photovoltaic capacity of around 630 GW.

In Germany, The Federal Minister for Economic Affairs and Climate Action, Dr. Robert Habeck said "We expect up to 200 Gigawatts of additional photovoltaic capacity to be installed on agricultural land. That is an enormous increase."

If India wants to realize its agriphotovoltaic potential, then what are the enablers? In Germany, one of the major announcements referred to legal clarity about the permissions to install AgriPV systems on agricultural farms. The German DIN Pre-norm SPEC 91434:2021-05, which was developed by market stakeholders and the DIN standardization organisation, is defining AgriPV with at least 85% of the land to remain available for agriculture purposes and the reference agricultural yield should be at least 66%, whereas Japan has defined a minimum reference agricultural yield of 80%. However, in India, the debate on how to define AgriPV is still ongoing, including defining the percentage of land to remain for agriculture purposes. Another important question is if AgriPV Projects on agricultural land (cropland etc.) shall be generally eligible for existing governmental support schemes related to

farming. An important step could be to define that AgriPV projects shall no longer exclude the farmer from the agricultural funding if the agricultural yield loss does not exceed a certain threshold. In Germany, the current threshold proposed by the Ministry for Energy is 15% which is stricter than the 24% threshold in the DIN SPEC norm 91434:2021-05.

To gain more insights on existing legal constraints for the establishment of AgriPV in India, the legal framework conditions in the states of Karnataka, Maharashtra, Tamil Nadu, Andhra Pradesh, Telangana, Rajasthan, Punjab, Haryana, Uttar Pradesh, Gujarat and Madhya Pradesh have been analysed by renowned legal and consultancy firms. The results shall contribute valuable inputs on how to further improve legal framework conditions for AgriPV in India to harvest the huge potential. The major focus lies on land regulations and how they influence the status of land-use category, probable change in tax incidence for farmers and developers, finance availability for project development and permits required. One of the important findings is the absence of legal clarity on how to define, design and implement AgriPV, but in some states, AgriPV can be permitted through special clearances. We hope that this report adds valuable input to further develop this market segment in India and we wish the reader fruitful insights.

Pranav R Mehta

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Legal assessment of AgriPV in Gujarat and Madhya Pradesh

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1. INTRODUCTION

- 1.1 We understand that Indo-German Energy Forum (“IGEF”), a part of the German development agency GIZ, seeks to facilitate strategic dialogue between the Ministry of New and Renewable Energy (MNRE) and its German counterpart, the Federal Ministry for Economic Affairs and Climate Action (BMWK) to assist with the ongoing energy transition in India in relation to agri-photovoltaics projects (**AgriPV Projects**) which combines the usage of land for agriculture and electricity generation.
- 1.2 We further understand that IGEF, in line with the Government of India’s (GoI) commitment to achieve 100 GW of solar capacity by 2022 is exploring options to develop AgriPV Projects. AgriPV Project is a unique concept which is prevalent in countries with scarcity of land e.g. Japan, where utility scale ground mounted solar projects are installed on agricultural land, such that the agriculture and photovoltaic project co-exist without hampering development/operations of either.
- 1.3 In this regard, IGEF has requested us for advice on specific queries relating to solar power projects and AgriPV Projects in India (**Queries**). We have accordingly prepared this memorandum summarising the regulatory framework applicable to solar power sector and our response to the Queries (“**Memorandum**”).

2. OVERVIEW OF THE SOLAR POWER SECTOR

- 2.1 Over the years GoI has been actively promoting development of solar power in the country through various policy interventions and schemes like Solar Park Scheme, Grid Connected Solar Rooftop Scheme, Viability Gap Funding Scheme etc., and has taken several steps to promote solar energy in India. These include:
 - 2.1.1 permitting foreign direct investment (“**FDI**”) in the renewable energy sector of upto 100% under automatic route;
 - 2.1.2 waiver of inter-state transmission system charges for inter-state sale of solar power from projects commissioned by 30 June 2025;
 - 2.1.3 issuing standards through Bureau of Indian Standards certification for deployment of solar photovoltaic system/devices;
 - 2.1.4 standard bidding guidelines for tariff based competitive bidding for procurement of power from grid connected solar PV projects;
 - 2.1.5 roll out of schemes such as Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyan (“**KUSUM Scheme**”) and Grid Connected Rooftop Solar Programme Phase-I.

3. REGULATORY FRAMEWORK

- 3.1 **Electricity**
 - 3.1.1 Under the Constitution of India, the legislative powers are distributed between union (federal government) and states (provincial governments). The seventh schedule of the Constitution has three lists: union list, state list and concurrent list. The Indian Parliament can make laws on the subjects mentioned in the union list, while the respective state legislatures can make laws on subjects mentioned in the state list. The Parliament and the state legislatures both can legislate on subjects mentioned in the concurrent list subject to the condition that in case of overlap, the union law would prevail. Residual matters not being enunciated by the Constitution as falling either within the scope of legislative competence of the union or that of the states, fall within the scope of powers of the union.
 - 3.1.2 Electricity is a concurrent list subject. Generation, Transmission and Distribution of electricity, is governed under the framework of the Electricity Act 2003 (“**Electricity Act**”) and the rules and regulations framed thereunder (“**Electricity Laws**”).
 - 3.1.3 The legislative competence over matters of electricity lies with both the Parliament and the State Legislatures. Consequently, the executive power over the subject of electricity is also divided between the Central and state governments. The Ministry of Power (“**MoP**”) is primarily responsible for the development of electricity sector in India. The MoP is responsible for, *among others*, planning,

formulation of policy, administration, and enactment of legislation in relation to thermal, hydro power generation, and transmission and distribution. MNRE is the nodal ministry of the GoI for all matters related to new and renewable energy.¹ Similarly, almost all state governments have a ministry of power and renewable energy to facilitate and administer, among others, electricity generation, distribution and transmission infrastructure within the respective States.

- 3.1.4 Generation of electricity is a de-licensed activity, except for hydro generating stations². The private sector is permitted to set up coal, gas or liquid based thermal projects, hydel projects, wind, solar and other renewable energy projects. In case of distribution, transmission and trading in electricity, a license is required to be obtained under the Electricity Act from the appropriate electricity regulatory commission.
- 3.1.5 Before we analyse the specific regulatory regime applicable to solar projects and AgriPV Projects, we have set out below certain key aspects which are pertinent for the purpose of this Memorandum.

(a) **Connectivity Arrangements:** Connectivity to the grid can either be through metering arrangements with the distribution companies or through open access. Metering arrangements are usually entered into when the solar plant and the consumer are both situated in the same premises. Metering can be either in the form of gross metering or net metering. The relevant state policy or regulation provide for the type of permissible metering within the state. Open access is availed of when the plant is situated in a location different from the consumer’s location, please refer to paragraph 3.1.5(a)(ii) below for further details in relation to open access.

(i) *Metering* – In India, two kinds of metering systems currently exist across states: net metering and gross metering.

A. Gross Metering

In gross metering mechanism the consumer directly supplies power to electricity distribution companies (“DISCOMs”) for a fixed feed in tariff and pays DISCOM the requisite applicable tariff for the energy consumed by him.

B. Net Metering

Under a net metering arrangement, the solar energy generated by the solar PV system is firstly consumed for internal purposes, including for meeting the captive requirements, and thereafter any surplus energy is exported to the grid. In the table below, a brief depiction of net metering system in a third party owned model is set out.

PARAMETER	GROSS METERING	NET METERING
Objective	Electricity sale to DISCOMs	Self-consumption of electricity, with surplus going to the DISCOMs
Contractual Arrangement	Power purchase agreement with the DISCOMs price determined by the Regulator or based on competitive bidding	Arrangement between DISCOMs and consumer in case the excess electricity sale is allowed
Metering Requirement	Compliance with the specifications of generation meter	Meter installed at the consumer’s premises measures the power generated and consumed simultaneously
Energy Accounting	Accounting for the solar generation	Accounting for the net power consumption by the consumer as well as solar generation (in case it is linked to any benefits /incentives)
Beneficiary	Enables the DISCOMs to meet its Renewable Purchase Obligation (“RPO”) compliance	Enables the consumer in reducing the electricity consumption from the DISCOMs

1 <https://powermin.gov.in/en/content/about-ministry>.

2 Section 7 of the Electricity Act.

- (ii) *Open Access* – Open access implies freedom to procure power from any source. Open access in transmission lines means freedom to the licensees to procure power from any source. The expression “open access” is defined in the Electricity Act as:³

The Electricity Act mandates licensees to provide non-discriminatory open access to their transmission system or the distribution system, as the case may be, to every licensee and generating company to facilitate sale of electricity directly to the distribution companies resulting in growth in competition among the sellers and help reduce the cost of generation/procurement. However, open access can be allowed on payment of a surcharge, to be determined by the state commission, to take care of the requirement of the cross-subsidy surcharge and the fixed cost arising out of the licensee’s obligation to supply. The Electricity Act exempts captive consumers from the payment of cross subsidy surcharge.

/// The non-discriminatory provision for the use of transmission lines or distribution system or associated facilities with such lines or system by any licensee or consumer or a person engaged in generation in accordance with the regulations specified by the appropriate commission.”

- (b) **RPOs:** Section 86 (1) (e) of the Electricity Act provides that the state electricity regulatory commission should, amongst other functions, promote co-generation and generation of electricity from renewable sources of energy, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee. RPO is a mechanism by which obligated entities including distribution licensees are required to purchase certain percentage of electricity from renewable energy sources, as a percentage of the total consumption of electricity. In this regard, each state electricity regulatory commission has issued regulations in relation to RPO (for instance, the Gujarat Electricity Regulatory Commission (Procurement of Energy from Renewable Sources) Regulations, 2010 and the Madhya Pradesh Electricity Regulatory Commission (Cogeneration and Generation of Electricity from Renewable Sources of Energy), (Revision-II), Regulations, 2021). Such regulations are amended from time to time to set out the RPO targets for obligated entities including distribution licensees of each state.
- (c) **Wheeling Charges:** Under the Electricity Act, “wheeling” is defined “as operation whereby the distribution system and associated facilities of a transmission licensee or distribution licensee, as the case may be, are used by another person for the conveyance of electricity on payment of charges to be determined under Section 62”. Solar developer in certain states are to pay wheeling charges to the transmission licensee or distribution licensee wheel power from the solar power project to end user as determined by the state regulatory commission.
- (d) **Cross Subsidy Surcharge:** Cross subsidy surcharge is mechanism pursuant to which certain consumer groups are charged higher tariff as compared to the actual cost of supplying power to them to compensate the revenue shortfall suffered by DISCOMs due to certain other consumer groups paying lesser tariff. For instance, commercial consumers pay higher tariff than domestic consumers since cross subsidy surcharge form part of their tariff component.
- (e) **Banking Charges:** Banking of energy means supplying of power to the grid not with the intent of distribution but with the intention to drawback from the grid for its use. For banking of energy generators are to pay banking charges to the distribution licenses.

3.1.6 The Electricity Act envisages a two tier regulatory oversight for regulating supply and purchase of electricity, namely:

- (a) Central Electricity Regulatory Commission (“CERC”), constituted under Section 76 of the Electricity Act, *inter alia*, determines tariff of generating companies who are engaged in the business of generating and selling electricity in more than one state, regulate inter-state transmission of electricity, and specifies grid code and grid standards, amongst others.
- (b) State Electricity Regulatory Commissions (“SERC”) constituted under Section 82 of the Electricity Act, *inter alia*, determine tariff for generation, supply, transmission and wheeling of electricity within the state, regulate purchase and procurement process of electricity by distribution licensees, including price at which the electricity is to be procured from generating companies or other sources through power purchase agreements for distribution and supply of electricity within the state, and facilitate intra-state transmission and wheeling of electricity.

Any inter-state transmission and purchase and sale of electricity is governed by the regulations framed by the CERC and any intra-state activities are regulated by the SERCs.

3.1.7 Relevant GoI Instrumentalities:

- (a) **MoP:** MoP is responsible for the development of electrical energy in India and is entrusted with administration of Electricity Act. MoP is mainly responsible for evolving policy in the field of energy.
- (b) **MNRE:** Nodal ministry of the GoI for all matters relating to new and renewable energy. MNRE is entrusted with the responsibility to facilitate research, design, development, manufacture, and deployment of new and renewable energy systems/devices for transportation, portable and stationary applications in rural, urban, industrial and commercial sectors.⁴ MNRE *inter alia* also identifies areas in which new and renewable energy products and services need to be deployed in keeping with the goal of national energy security and energy independence and deploys strategy for various indigenously developed and manufactured new and renewable energy products and services.
- (c) **Central Transmission Utility (CTU):** A statutory body established existing under the Electricity Act, which *inter alia* undertakes transmission of electricity through inter-state transmission system and is entrusted with planning and coordination of matters relating to inter-state transmission system, state transmission utilities, central and state governments, and other stakeholders.
- (d) **National Load Despatch Centres (NLDC):** Under the Electricity Act, NLDC is to ensure optimum scheduling and despatch of electricity among the regional load despatch centres.
- (e) **Regional Load Despatch Centres (RLDC):** RLDC is entrusted with despatch of electricity within regions and monitoring grid operations. Transmission licensees, generating companies, generating stations and sub-stations and other person connected with the operation of the power system are to comply with the directions of RLDCs.
- (f) **Central Electricity Authority (CEA):** CEA is established under the Electricity Act which advises the GoI on matters relating to the national electricity policy, formulation of short-term and prospective plans for development of the electricity system and co-ordinate the activities of the planning agencies for the optimal utilisation of resources to subserve the interests of the national economy and to provide reliable and affordable electricity for all consumers. CEA also *inter alia* specifies technical standards for construction of electrical plants, electric lines and connectivity to the grid.

4 <https://mnre.gov.in/the-ministry/what-does-the-ministry-do/>.

3.1.8 State Government Instrumentalities:

- (a) **State's Energy or Power Department:** The State's energy or power department, as applicable, is the nodal authority entrusted with the implementation of the solar policy formulated by the state government. The energy or power department monitors the progress of activities under the policy and also addresses the concern of stakeholders.
- (b) **SERC:** The SERCs are responsible for formulating regulations addressing various provisions of solar policies of the state. In absence of a solar policy, the SERC, by virtue of the power entrusted on SERC under the Electricity Act, can either notify a regulation *suo motu* or through its decision on a petition made by any stakeholder.
- (c) **DISCOMS:** The DISCOMs are the important stakeholders in the value chain of solar power generation as they are responsible for interconnection of the solar power system with the distribution system. For metering arrangements a consumer enters into a net/gross metering arrangement with a DISCOM for supply of power. DISCOMs are also responsible for billing of individual solar PV system and making payment to the consumers in cases where energy is sold to DISCOMs.
- (d) **Chief Electrical Inspector:** A chief electrical inspector of the state is responsible for ensuring that power projects adhere to the safety standards prescribed and its safe operation. A chief electrical inspector during the construction phase grants approvals for drawings and designs of the project and thereafter once the system is installed, he grants a charging/energising certificate to the developer.

3.1.9 Schemes of GoI for Solar Power Sector:

- (a) **National Solar Mission:** The Jawaharlal Nehru National Solar Mission later rechristened as the National Solar Mission ("NSM") was launched by the GoI on 11 January 2010 with a target to develop and deploy 20 GW of solar power by the year 2022 and to make India the leader in solar energy. In 2015, GoI revised the target from 20 GW to 100 GW of solar power. The 100 GW of solar power would comprise 40 GW of rooftop and 60 GW of large and medium scale grid connected solar power projects. The NSM envisages adoption of 3 phase approach for achieving the targets with various components. Solar Energy Corporation of India Limited ("SECI") a public sector undertaking under the administrative control of MNRE is the entrusted with the responsibility of implementation of NSM and achieve targets set therein. SECI is a dedicated entity established by the GoI for the solar power sector.
- (b) **KUSUM Scheme:** Kusum Scheme was launched in 2019 by the GoI, to provide clean energy to farmers in the country. The Kusum Scheme has the following 3 components:
 - **Component A-** Setting up of 10,000 MW of decentralised grid connected renewable energy power plants on barren or fallow land. The capacity of project would be of 500 kW to 2 MW. Individual farmers/ group of farmers/ cooperatives/ panchayats/ Farmer Producer Organisations (FPO)/Water User associations (WUA) are eligible to undertake the project on barren or fallow land. Power plants are also allowed to also be installed on cultivable land on stilts where crops can also be grown below the solar panels. The projects proposed to be installed under this component are to be installed within 5 km radius of the sub-stations in order to avoid high cost of sub-transmission lines and to reduce transmission losses. DISCOM can purchase the power generated at feed-in-tariff. DISCOMS will be provided procurement incentives of INR 0.40 /unit for 5 years.

- **Component B-** Under this component the GoI intends to install 17.5 lakh standalone solar agriculture pumps of capacity up to 7.5 horsepower replacing their diesel agricultural pumps or irrigation systems. Farmers are also allowed to install pumps with more than 7.5 horsepower capacity however the financial support from the government would be limited to pumps with 7.5 horsepower capacity.
- **Component C-** Under this scheme GoI aims for solarisation of 10 lakh grid connected agriculture pumps. Under this scheme individual farmers having grid connected agriculture pump will be provided support to solarise their pumps. Farmers would be able to use the generated power to meet the solar power to meet their own irrigation needs and supply the excess solar power to DISCOMs at pre-fixed tariff.

Kusum Scheme envisages to add solar capacity of 30.8 GW by 2022. GoI has earmarked INR 340,350,000,000 as total financial support for Kusum Scheme and component wise, the financial assistance would be as follows:

COMPONENT	FINANCIAL ASSISTANCE
Component A	33,250,000,000
Component B	159,120,000,000
Component C	147,980,000,000
TOTAL	340,350,000,000

Presently, the AgriPV Projects are being implemented under Component A of the Kusum Scheme. We understand that capacity allocation under Component A have been allocated by states of Haryana, Himachal Pradesh and Rajasthan⁵. Please refer to our response to query 4.6 for further discussions on implementation of Kusum Scheme.

3.1.10 Stakeholders of Government of Gujarat:

GUJARAT REGULATORY AUTHORITIES
<p>Gujarat Electricity Regulatory Commission (“GERC”) – Electricity regulatory commission constituted under Section 82 of the Electricity Act.</p> <p>Gujarat Energy Development Agency (“GEDA”) – GEDA is the authority under the Government of Gujarat for development of renewable energy in Gujarat. GEDA is the state nodal agency for MNRE and state designated agency for the Bureau of Energy Efficiency.</p> <p>Gujarat Urja Vikas Nigam Limited (“GUVNL”) – GUVNL is engaged in the business of bulk purchase and sale of electricity, supervision, co-ordination, and facilitation of the activities of its six subsidiaries involved in generation, transmission, and distribution of electricity.</p> <p>Gujarat Energy Transmission Corporation Limited (“GETCO”) – GETCO is the transmission company in Gujarat providing transmission facilities.</p> <p>The supply and distribution of electricity in Gujarat is carried out by four subsidiaries of GUVNL, namely - Uttar Gujarat Vij Company Limited (“UGVCL”) supplying electricity to the northern areas Gujarat, Madhya Gujarat Vij Company Limited (“MGVCL”) supplying electricity to the central areas of Gujarat, Dakshin Gujarat Vij Company Limited (“DGVCL”) supplying electricity to the southern areas of Gujarat, and Paschim Gujarat Vij Company Limited (“PGVCL”) supplying electricity to the western areas of Gujarat.</p>

3.1.11 Stakeholders of Government of Madhya Pradesh:

Madhya Pradesh Electricity Regulatory (“MPERC”)- State electricity regulatory commission constituted under Section 82 of the Electricity Act.

Madhya Pradesh New and Renewable Energy Department (“MPNRED”)- MPNRED is the nodal ministry of the government of Madhya Pradesh for all matters relating to new and renewable energy.

Madhya Pradesh Urja Vikas Nigam Limited (“MPUVNL”)- MPUVNL is the nodal agency for implementing various programs and policies of the Government of India as well as the Government of Madhya Pradesh for the renewable energy sector. MPUVNL promotes and create awareness about the uses of solar, wind, biomass, biogas, renewable energy and energy efficient products based various technologies among the public and promotes policies and programs necessary for popularizing the applications of various new and renewable energy technologies in the state of Madhya Pradesh.

M.P. Transmission Company Limited (“MPTRANSCO”) - MPTRANSCO is the transmission company providing transmission facilities in state of Madhya Pradesh and also performs the function of state transmission utility.

M.P. Power Management Company Limited (formerly known as MP Power Trading Company Limited) (“MPPMCL”) - MPPMCL (similar to GUVNL in the state of Gujarat) is the holding company of all the DISCOMs in Madhya Pradesh. Government of Madhya Pradesh had restructured the erstwhile Madhya Pradesh State Electricity Board into five independent companies (1 generating company, 1 transmission company and 3 distribution companies). MPPMCL is engaged in bulk purchase of electricity from generating companies and supply of electricity in bulk to the three DISCOMs of the State.

MP Paschim Kshetra Vidyut Vitaran Company Limited, MP Poorv Kshetra Vidyut Vitaran Company Limited, MP Madhya Kshetra Vidyut Vitaran Company Limited are the DISCOMs in Madhya Pradesh (collectively “MPDISCOMs”). The 3 DISCOMs are segregated zonal wise (west, east and central zones respectively) and they distribute power in their respective zones.

3.1.12 Policies of Government of Gujarat

(a) Gujarat Solar Policy

Vision- Gujarat intends to promote and rapidly scale up the solar power capacity the state in line with the India’s national target of achieving 100 GW solar capacity by 2022.

Operative Period- Until 31 December 2025. Solar power systems installed and commissioned during the operative period are eligible for benefits and incentives under the Policy, for period of 25 years from the date of commissioning or life span of the solar power system, whichever is earlier.

Eligible Entities- Individual(s), company, corporate body, association or body of individuals (whether incorporated or not) artificial juridical person are eligible to set up the solar project either for captive use or for selling to the distribution licenses or third party including under REC mechanism subject to Electricity Act. To avail the benefits and incentives entity desirous of setting up a solar power project is to apply to the state nodal agency (ie GEDA).

Wheeling and Transmission of Electricity- Wheeling of power for captive consumption/third party sale is allowed on payment of transmission charges, transmission losses as applicable to normal open access consumers. No such wheeling and transmission charges and losses are payable if the solar energy is consumed in the same premises with no use of grid. In case the solar power developer wheels electricity to more than 1 location then the solar power developer is to pay additional charges of INR 0.05/kWh on energy fed into the grid to the distribution licensee in whose area power is consumed.

Cross subsidy surcharges and additional surcharge- For third party sale project, cross subsidy and additional surcharge equal to the charges paid by open access consumer as determined by GERC.

Land and Premises - Developer/consumer are responsible to procure land/premises on which solar projects are to be set up.

Projects for Residential Consumers - Solar projects can be set up by residential consumers on their rooftop or premises irrespective of consumer sanctioned load and a developer can also set up a solar project on rooftop or premises of a residential consumer for generation and sale of power to such consumer in the same premises subject to developer and consumer entering into a lease and power sale agreement

Capacity Restriction	None
Capital Subsidy	As per the Government of Gujarat scheme announced from time to time
Third Party Sale	Allowed
Energy Accounting	As per billing cycle
Surplus Injection Compensation	For self-consumption- INR 2.25/unit of the first 5 years and thereafter 75% of the lowest tariff discovered by GUVNL for non-park based solar project immediately preceding 6 month from the commercial operation date of the project.
	Third party sale: 75% of the lowest tariff discovered by GUVNL for non-park based solar project immediately preceding 6 month from the commercial operation date of the project.
Banking Charges	None
Transmission Charges	None
Cross Subsidy and Additional Surcharges	Not applicable for self-consumption. Applicable for third party sale.
Electricity Duty	As per the provision of the Gujarat Electricity Duty Act 1958 (“Guj Electricity Duty Act”)

(b) Suryashakti Kisan Yojana (“SKY Scheme”)

In 2018, the Government of Gujarat launched the SKY Scheme for the benefit of farmers. Under the SKY Scheme farmers can generate electricity using solar panel in their farm for their farming related irrigation requirement and can sell the excess electricity generated to GUVNL at a tariff of INR 7 per unit (ie INR 3.5 per unit payable by GUVNL and INR 3.5 per unit payable by the Government of Gujarat) and earn additional income. The projects set up under the SKY Scheme would be valid for a term of 25 years split into a period of 7 year and 18 year period. The Government of Gujarat aims to cover 33 districts under the SKY Scheme and intends to benefit more than 12,400 farmers.

Some of the key highlights of the SKY Scheme are as follows:

- (i). farmers would be allowed to set up solar PV panels of 1.25 KW per horse power of contracted load e.g consumers having 10 HP agriculture connection can set up solar PV capacity of 12.5 KW. Any installation of higher capacity is allowed however in such case, the subsidy by Government of Gujarat through above-mentioned tariff of INR 3.5/unit will not be applicable to the excess capacity.
- (ii). Government of Gujarat would take loan from National Bank for Agricultural and Rural Development (“NABARD”) on behalf of the farmers for a period of 7 years.

- (iii). for the first 7 years, farmers would receive INR 7/unit (INR 3.5 by GUVNL and the remaining INR 3.5 by the Government of Gujarat) and for the subsequent 18 years the farmers will receive INR 3.5/unit, for the power sold. The above-mentioned tariff of INR 3.50/unit would be paid by the Government of Gujarat as evacuation based incentive during the tenor of the loan as mentioned in (ii) above.
- (iv). farmers are to execute power purchase agreement with DISCOMs for the term of 25 years for sale of surplus energy.
- (v). during the tenor of the loan ie 7 years the ownership of solar power project would be with the DISCOM on behalf of state government and the ownership would transfer to the farmer after the loan repayment.

(c) Gujarat Small Scale Solar Project Policy

Government of Gujarat through government resolution dated 6 March 2019 issued the Gujarat Small Scale Solar Project Policy which shall remain operational for a period of 5 years from the date of its issue. The Gujarat Small Scale Solar Project Policy envisages to facilitate development of small scale solar projects ranging from 0.5 MW to 4 MW in the distribution network of GUVNL and its subsidiaries. The key objectives of the Gujarat Small Scale Solar Project Policy are as follows:

- (i). facilitate and promote speedier development of solar projects in multiple scattered pockets of barren and uncultivable land.
- (ii). provide visibility about available tariff for sale of power to small solar power project developers who cannot participate in competitive bidding.
- (iii). mobilize local resources, enhance skill development and create employment opportunities in solar energy sector by promoting small scale entrepreneurs.
- (iv). help utilize the robust transmission and distribution network of DISCOMs in the state of Gujarat for large scale integration of Solar Projects with the grid.
- (v). strengthen the local grid and improve local voltage by encouraging distributed generation.
- (vi). encourage growth of local manufacturing facilities in line with the 'Make in India' programme.

In terms of the Gujarat Small Scale Solar Project Policy, any individual, company or body corporate or association or body of individuals, Co-operative Society of individuals / farmers or artificial juridical person are eligible for setting up small scale solar projects exclusively for the purpose of sale to DISCOMs for fulfilment of their RPO.

In furtherance to the Gujarat Small Scale Solar Project Policy, Government of Gujarat through government resolution dated 15 November 2019 has issued guidelines for implementation of Policy for Development of Small Scale Distributed Solar Projects-2019 which among others provide that small scale solar projects are to be set up on private land (on sale or lease basis) and no revenue land shall be allotted by the Government of Gujarat. Further, if the project is to be set up on agriculture land, permission for change in land use to non-agriculture is required.

3.1.13 Policies of Government of Madhya Pradesh

(a) Policy for implementation of Solar Power Based Projects in Madhya Pradesh 2012 (“MP Solar Policy”)

Object- The MP Solar Policy amongst others aims to encourage participation of private sector in solar power sector by providing incentives and benefits to be provided to the private sector.

Eligible Entities- Individual/ Firm/ Society/ Institution/ Registered Company etc.

Certain categories of Solar Projects-

CATEGORY	DETAILS		CAPACITY		
Category I	Projects selected as per the competitive bidding process for selling power to Madhya Pradesh DISCOMS and MPPMCL.		The minimum and maximum capacity would be as per the request for selection/ qualification document issued by the Government of Madhya Pradesh.		
Category II	Projects set up for captive use or sale of power to third party within or outside the state or for sale of power to other states through open access.		Technology	Minimum Capacity (MW)	Maximum Capacity
Solar Photovoltaic	.025	100	Solar Photovoltaic	.025	100
Solar thermal	1	100	Solar thermal	1	100
Category IV	Projects under NSM.		As per the guidelines of NSM.		

Nodal Agency- Office of Commissioner, New and Renewable Energy, Government of Madhya Pradesh.

Electricity Duty and Cess Payment- All solar power projects (including captive units) are eligible for exemption from payment of electricity duty and cess for a period of 10 years from the date of commissioning of the project.

Wheeling and Transmission Charges- Developer of the project is responsible for making payment to MPPMCL or the respective DISCOMS in case of sale of power to third party consumers/ DISCOMS/ MPPMCL, as per the applicable regulations of MPERC.

Land Use Permission- Maximum government land available to solar power producer for developing a solar project in Madhya Pradesh is 3 hectares/MW. Developer who purchases a private land for setting up a solar project is entitled to receive exemption of 50% in stamp duty. MPNRED is the organisation responsible for granting approval to use government land for use for solar power project by a private developer.

(b) Madhya Pradesh Policy for Decentralised Renewable Energy Systems 2016 (“MP Decentralised Solar Policy”)

Out of the 40 GW target to install solar rooftop by the GoI under the NSM by 2022, Government of Madhya Pradesh has been allotted a target of 2.2 GW. The Government of Madhya Pradesh, with an aim to promote consumption of captive energy generation, and third party sale of energy generated from renewable energy resources at decentralized locations, has come out with the MP Decentralised Solar Policy. The MP Decentralised Solar Policy among others aims:

- (i). growth of decentralized renewable energy stems;
- (ii). to reduce dependence on conventional sources of energy;

- (iii). to reduce carbon emissions;
- (iv). to help the State achieve its RPO; and
- (v). to provide impetus to growth of clean technology in the state of Madhya Pradesh.

Government of Madhya Pradesh, intends to promote decentralised renewable systems through (i) projects on net metered basis; (ii) gross metering with wheeling and banking; (iii) for consumption withing premises with no export or power; (iv) off grid renewable energy systems. Under the MP Decentralised Solar Policy a developer is allowed to install renewable energy technologies either on rooftops or within the consumers own premises including agricultural farms. The MP Decentralised Solar Policy will be applicable to all solar project of capacity up to 2 MW.

3.2 Overview of land framework

3.2.1 Power to legislate on land

‘Land’ is a state list subject and accordingly only state legislatures are empowered to legislate on areas related to development of land and restrictions on usage of land.

Typically, developers set up a solar project either on revenue land (ie the land belonging to the government a government authority) or private land. For revenue land owned by the relevant government authority, developers obtain a lease. In certain cases, the land leased for the development of renewable energy projects is obtained on a sub-lease/ lease from the relevant state governments, which in turn has acquired/ leased such land from private parties. The private lands acquired by developer for setting up solar projects usually are agricultural land, the transfer of such land from agriculturalists to developers and the use of such land for non-agricultural purposes (ie solar power generation) may require an order from the relevant state land or revenue authority allowing such transfer or use.

3.2.2 Overview of land laws in state of Gujarat

The agricultural land is primarily governed by the following legislation enacted by the Government of Gujarat:

- (a) Gujarat Land Revenue Code, 1879 (“**Gujarat Land Revenue Code**”) and Gujarat Land Revenue Rules 1972 (“**Gujarat Land Revenue Rules**”), among others governs the land revenue administration in the state of Gujarat⁶, permitted usage of agricultural land and regulates the process of conversion of agricultural land to non-agricultural uses in the state of Gujarat.
- (b) The Gujarat Agricultural Lands Ceiling Act, 1961 (“**Gujarat Land Ceiling Act**”), among others restricts holding of agricultural lands in excess of ceiling limits and provides for acquisition and disposal of surplus agricultural land in the state of Gujarat. The Gujarat Land Ceiling Act classifies agricultural land into 4 (four) classes, ie (i) perennially irrigated land; (ii) seasonally irrigated land; (iii) dry crop land; and (iv) rice land and specify different ceiling limits based on the class of agricultural land and location of such agricultural land.

3.2.3 Usage of agricultural land in state of Gujarat

The restriction on usage of agricultural land is set out in Section 65 of the Gujarat Land Revenue Code as follows:

“Uses to which occupant of land for purposes of agriculture may put his land

Any occupant of land assessed or held for the purpose of agriculture is entitled by himself, his servants tenants, agents, or other legal representatives, to erect farm-buildings, construct wells or tanks, or make any other improvements thereon for the better cultivation of the land, or its more convenient use for the purpose aforesaid

Procedure if occupant wishes to apply his land to any other purpose

But, if any occupant wishes to use his holding or any part thereof for any other purpose the Collector’s permission shall in the first place be applied for by the occupant.

⁶ except in areas that are notified as planning areas by the government of Gujarat.

The Collector, on receipt of such application,

- (a) shall send to the applicant a written acknowledgement of its receipt, and
- (b) may, after due inquiry, either grant or refuse the permission applied for:

Provided that, where the Collector fails to inform the applicant of his decision on the application within a period of three months, the permission applied for shall be deemed to have been granted; such period shall, if the Collector sends a written acknowledgement within seven days from the date of receipt of the application, be reckoned from the date of the acknowledgement, but in any other case it shall be reckoned from the date of receipt of the application.

Unless the Collector shall in particular instances otherwise direct, no such application shall be recognized except it be made by the occupant.”

The term ‘agriculture’ is defined in the Gujarat Land Ceiling Act as follows:

“agriculture includes horticulture, raising of crops, grass, garden produce, the use by an agriculturalist of the land held by him or part thereof for grazing but does not include

- (i) the use of any land, whether or not an appanage to rice or paddy land, for the purpose of rab-manure;
- (ii) the cutting of wood only
- (iii) dairy farming
- (iv) poultry farming
- (v) breeding of livestock; and
- (vi) such other pursuits as may be prescribed

Explanation – If any question arises as to whether any land or part thereof is used for any of the pursuits mentioned in any of the sub-clauses (i) to (vi), such question shall be decided by the Tribunal”

Based on the aforesaid, it emerges that a land which is assessed or held for the purpose of agriculture may be used for the following purposes in addition to agriculture:

- (a) erecting farm-buildings;
- (b) construction wells or tanks;
- (c) any other improvements thereon for the better cultivation of the land; or
- (d) more convenient use of such land in relation to above-mentioned purpose.

In the event, a land qualifying or assessed as agricultural is to be used for non-agricultural purpose (ie solar power generation), the occupant of such land is required to obtain the permission of Collector under Section 65 of the Gujarat Land Revenue Code which permission may be granted or refused by the Collector after due inquiry. However, such change in land use permission shall be deemed to be granted if the Collector fails to convey its decision within 3 (three) months⁷. In terms of Section 66 of the Gujarat Land Revenue Code, if an agricultural land is used for non-agricultural purpose in absence of above-mentioned change in land use permission or deemed permission, the occupant of such land would be liable to pay tax as assessed based on the utilization of such land⁸ and conversion tax⁹ to state government of Gujarat. Further, occupant of such land shall be evicted by the Collector from such land and will also be liable to pay a fine for the period such land is used for non-agricultural purpose as directed by the Collector subject to orders of state government of Gujarat.

Further, in terms of section 65(B) of the Gujarat Land Revenue Code, certain agricultural lands can be used for a bona fide industrial purpose (which among others include power projects) without obtaining the above-mentioned change in land use permission, subject to the fulfilment of

⁷ Either from the date on which Collector send his acknowledgement of change in land use application or from the date of submission of change in land use application if the no acknowledgement is provided within 7 days of such application receipt.

⁸ Section 48 of the Gujarat Land Revenue Code.

⁹ Section 67(A) of the Gujarat Land Revenue Code.

following conditions: (a) occupant has clear title to such agricultural land; and (b) such land or part thereof: (i) is not reserved for public purpose; (ii) is not notified for acquisition under Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement Act, 2013; (iii) does not fall within alignment of any road plan prepared by the Government of Gujarat or the command area of any irrigation project; (iv) is not situated within 30 meters from the boundary of any land held for the purpose of railway; (v) is not situated within fifteen metres of the high voltage transmission line; and (vi) is not situated within 5 kilometres of the periphery of the area within the jurisdiction of any area development authority or urban development authority. However, it appears that such bona fide industrial purpose in relation to power project does not envisage simultaneous usage of agricultural land for agricultural as well as solar power generation.

In view of the aforesaid, it appears that the Gujarat Land Revenue Code does not envisages grant of change in land use permission for mixed/ hybrid utilization of agricultural land for the purpose of AgriPV Projects (ie usage of land simultaneously for agriculture as well as solar power generation).

3.2.4 Overview of land laws in state of Madhya Pradesh

The agricultural land is primarily governed by the following legislation enacted by the Government of Madhya Pradesh:

- (a) Madhya Pradesh Land Revenue Code, 1959 (“**MP Land Revenue Code**”), among others governs the land revenue administration in the state of Madhya Pradesh, permitted usage of agricultural land and regulates the process of conversion of agricultural land to non-agricultural uses in the state of Madhya Pradesh. Under the scheme of the MP Land Revenue Code, assessment of land revenue is made based on the usage of such land for: (i) purpose of agriculture or farm house, which is situated on holding of one acre or more; (ii) sites for dwelling houses; (iii) industrial or commercial purposes; (iv) mining purpose; (v) any other purpose.¹⁰
- (b) The Madhya Pradesh Ceiling on Agricultural Holdings Act, 1960 (“**MP Land Ceiling Act**”), among others restricts holding of agricultural lands in excess of ceiling limits and provides for acquisition and disposal of surplus agricultural land in the state of Madhya Pradesh. The MP Land Ceiling Act classifies agricultural land into 3 (three) classes, ie, (i) land capable of yielding two crops and receiving assured irrigation or assured private irrigation for both the crops; (ii) land capable of yielding one crop and receiving assured irrigation or assured private irrigation for the crop; and (iii) dry land.

3.2.5 Usage of agricultural land in state of Madhya Pradesh

The restriction on usage of agricultural land is set out in Section 171 and Section 172 of the MP Land Revenue Code as follows:

“171- Right to make improvements

A bhumiswami of land held for the purpose of agriculture is entitled to make any improvement thereon for the better cultivation of the land or its more convenient use for the purpose aforesaid.

172- Diversion of land

- (1) If a bhumiswami of land held for any purpose in-
 - (i) urban area or within a radius of five miles from the outer limits of such area;
 - (ii) a village with a population of two thousand or above according to last census; or
 - (iii) in such other areas as the State Government may, by notification, specify;

wishes to divert his holding or any part thereof to any other purpose except agriculture, he shall apply for permission to the Sub-Divisional Officer who may, subject to the provisions of this section and to rules made under this Code, refuse permission or grant it on such conditions as he may think fit:

¹⁰ Section 59 of the MP Land Revenue Code.

Provided that should the Sub-Divisional Officer neglect or omit for three months after the receipt of an application under sub-section (1) to make and deliver to the applicant an order of permission or refusal in respect thereof, and the applicant has by written communication called the attention of the Sub-Divisional Officer to the omission or neglect, and such omission or neglect continues for a further period of one month, the Sub-Divisional Officer shall be deemed to have granted the permission without any condition :

Provided further that if a bhumiswami of a land, which is reserved for a purpose other than agriculture in the development plan but is used for agriculture, wishes to divert his land or any part thereof to the purpose for which it is reserved in the development plan, a written information of his intention given by bhumiswami to the Sub-Divisional Officer shall be sufficient and no permission is required for such diversion :

Provided also that if a bhumiswami of a land wishes to divert his land or any part thereof which is assessed for agriculture purpose and situated in any area other than an area covered by development plan to the purpose of industry, a written information of his intention given by bhumiswami to the Sub-Divisional Officer shall be sufficient and no permission is required for such diversion.

Provided also that if a competent authority undertakes the work of regularization of the illegal colony, the land of which is not diverted, then the land, subject to the provisions of development plan, shall be deemed to have been diverted and such land shall be liable for premium and revised land revenue under Section 59.

Explanation.-For the purpose of this section the competent authority shall have the same meaning as assigned to it in the Madhya Pradesh Nagar Palika (Registration of Coloniser – Terms and Conditions) Rules, 1998 made under the Madhya Pradesh Municipal Corporation Act, 1956 (No. 23 of 1956) and the Madhya Pradesh Municipalities Act, 1961 (No. 37 of 1961).

- (2) *Permission to divert may be refused by the Sub-Divisional Officer only on the ground that the diversion is likely to cause a public nuisance, or the bhumiswami is unable or unwilling to comply with the conditions that may be imposed under sub-section (3).*
- (3) *Conditions may be imposed on diversion for the following objects and no others, namely, in order to secure the public health, safety and convenience, and in the case of land which is to be used as building sites, in order to secure in addition that the dimensions, arrangement and accessibility of the sites are adequate for the health and convenience of occupiers or are suitable to the locality.*
- (4) *If any land has been diverted without permission by the bhumiswami or by any other person with or without the consent of the bhumiswami the Sub-Divisional Officer on receiving information thereof, may impose on the person responsible for the diversion a penalty not exceeding two thousand rupees and may proceed in accordance with the provisions of sub-section (1) as if an application for permission to divert had been made.*
- (5) *If any land has been diverted in contravention of an order passed or of a condition imposed under any of the foregoing sub-sections, the Sub-Divisional Officer may serve a notice on the person responsible for such contravention, directing him, within a reasonable period to be stated in the notice, to use the land for its original purpose or to observe the condition; and such notice may require such person to remove any structure, to fill up any excavation, or to take such other steps as may be required in order that the land may be used for its original purpose, or that the condition may be satisfied. The Sub-Divisional Officer may also impose on such person a penalty not exceeding two thousand rupees for such contravention, and a further penalty not exceeding one hundred rupees for each day during which such contravention is persisted in.*
- (6) *If any person served with the notice under sub-section (5) fails within the period stated in the notice to take the steps ordered by the Sub-Divisional Officer under that sub-section, the Sub-Divisional Officer may himself take such steps of cause them to be taken; and any cost incurred in so doing shall be recoverable from such person as if it were an arrear of land revenue.*

(6-a) If any land has been diverted in contravention of sub-section (6-ee) of Section 165, the Sub-Divisional Officer in addition to taking action laid down in sub-sections (5) and (6), shall also impose a penalty not exceeding five thousand rupees for such contravention and a further penalty not exceeding one hundred rupees for each day during which such contravention is persisted in.

Explanation I. Diversion in this section means using land assessed to one purpose under Section 59 to any other purpose mentioned therein but using land for the purpose of agriculture where it is assessed with reference to any other purpose shall not be deemed to be diversion.

Explanation II. For the purposes of this section the words ‘development plan’ shall have the same meaning as assigned to it in the Madhya Pradesh Nagar Tatha Gram Nivesh Adhiniyam, 1973 (No. 23 of 1973).”

The term ‘agriculture’ is defined in the MP Land Revenue Code as follows:

“agriculture” includes--

- (i) the raising of annual or periodical crops including betel leaves (Pan) and waternuts (singhara) and garden produce;
- (ii) horticulture;
- (iii) the planting and upkeep of orchards; and
- (iv) the reserving of land for fodder, grazing or thatching grass;
- (v) the use of land for poultry, fisheries or animal husbandry in an area situated more than five kilometres away from the periphery of urban areas;

Based on the aforesaid, it emerges that a land which is assessed or held for the purpose of agriculture may be used for the following purposes in addition to agriculture:

- (a) erecting farm house;
- (b) any other improvements thereon for the better cultivation of the land; or
- (c) more convenient use of such land in relation to above-mentioned purpose.

In the event, a land qualifying or assessed as agricultural is to be used for non-agricultural purpose (ie, solar power generation), the bhumiswami¹¹ is required to obtain the permission of Sub-Divisional Officer under Section 172 of the MP Land Revenue Code which may be granted or refused by the Sub-Divisional Officer after due inquiry. However, such change in land use permission shall be deemed to be granted if the Sub-Divisional Officer fails to convey its decision within 3 (three) months after receipt of such change in land use application, subject to the condition that the applicant has reminded the Sub-Divisional Officer about his application by written communication and the change in land use application remains pending for a period of 1 (one) month from the date of such reminder sent by the applicant.

In terms of Section 172 of the MP Land Revenue Code, if an agricultural land is used for non-agricultural purpose in absence of above-mentioned change in land use permission or deemed permission, the Sub-Divisional Officer may impose a penalty upto INR 2,000 and analyse such change in land use as if an application has been made under Section 172 of the MP Land Revenue Code. Further, if an agricultural land is used in contravention of order passed by the Sub-Divisional Officer under Section 172 of the MP Land Revenue Code, the Sub-Divisional Officer may serve a notice on the person responsible for such contravention, directing to use the agricultural land for its original purpose or as per the conditions imposed in change in land use approval under Section 172 of the MP Land Revenue Code and such notice may require the person to remove any structure on such agricultural land to ensure that agricultural land is used for its original purpose or as per the imposed condition under Section 172 of the MP Land Revenue Code (as the case may be), failing which, the Sub-Divisional Officer may carry out such removal at the cost of person responsible for such contravention. The Sub-Divisional Officer may also impose a penalty on such person upto INR 2,000 along with a further continuing penalty upto INR 1,000 for each day such contravention continues. Additionally, depending on case to case, the Sub-Divisional Officer may also impose a penalty of INR 5,000 for such contravention along with a further continuing penalty upto INR 100 for each day such contravention continues.

¹¹ Under the scheme of the MP Land Revenue Code, various classes of the owners of lands in state of Madhya Pradesh post-independence and post consolidation of land related laws, are classified as ‘bhumiswami’ under Section 158 of the MP Land Revenue Code. In terms of section 219 of the MP Land Revenue Code, bhumiswami shall have the same rights in the holding or land allotted to him in pursuance of a scheme of consolidation as he had in his original holding.

Further, in terms of section 172 of the MP Land Revenue Code, only a prior intimation to the Sub-Divisional Officer is required in case of change in land use of an agricultural land which is: (a) reserved for a purpose other than agriculture in the development plan but is used for agriculture; or (b) situated in any area not covered by the development plan to the purpose of development of industry.

In view of the aforesaid, similar to the state of Gujarat, it appears that the MP Land Revenue Code does not envisages grant of change in land use permission for mixed/ hybrid utilization of agricultural land for the purpose of AgriPV Projects (ie, usage of land simultaneously for agriculture as well as solar power generation).

4. SPECIFIC QUERIES & RESPONSES

4.1 List the legal requirements of permits/ licenses to establish a multi-MW (1 to 10 MW) size solar project in Gujarat and Madhya Pradesh on agricultural land.

4.1.1 Requirements under the Electricity Act

Any person intending to set up and operate a solar generation station, may do so without obtaining a license under the Electricity Act. Under the scheme of Electricity Act, all solar generation facilities need to comply with the technical standards for construction of electricity plants, electricity lines, grid connectivity, metering and safety of power systems as specified by the CEA under various legislations.

Generation stations however need to comply with the technical standards relating to, among other things, grid connectivity. The CEA (Technical Standards for Connectivity to the Grid) Regulations, 2007 lay down standards for grid connectivity which essentially regulate technical standards and conditions for electricity generating systems for integration into the grid. Additionally, CEA has also framed regulations pertaining to the following matters:

- (a) Grid standards for operation and maintenance of transmission lines;
- (b) Measures relating to safety and electricity supply;
- (c) Technical standards for construction of electrical plants and lines;
- (d) Safety requirements for construction, operation and maintenance of electrical plants and lines;
- (e) Technical standards and other requirements for installation and operation of electricity meters.

Other approvals required for setting up of industrial facilities are also required for setting up electricity generation facilities such as certificate of importer – exporter code, height clearance from Airport Authority of India and clearance from Ministry of Defence, details of which are briefly set out in paragraph 4.1.3 below.

4.1.2 Labour Registrations and Compliances

Construction and development of the solar power project would involve the engagement of employees and contract workers. In India, employees can be broadly classified into 2 categories. The first category consists of persons employed in an industry to carry out manual, unskilled, technical, operational, clerical or supervisory work (subject to certain statutory exceptions). These are commonly referred to as workmen (workmen). The second category consists of persons employed in mainly a managerial or administrative capacity or persons employed in a supervisory capacity but earning more than a specified amount. The second category of persons typically have an employment contract with their employer. Depending on the number and nature of personnel engaged for setting up the AgriPV Projects, compliances may be required under labour and social security legislations such as Building and Other Construction Workers' (Regulation of Employment and Conditions of Service) Act, 1996, Contract Labour (Regulation and Abolition) Act, 1970, Minimum Wages Act, 1948, the Payment of Wages Act, 1936, the Employees Provident Funds and Miscellaneous Provisions Act, 1952, the Payment of Bonus Act, 1965, the Maternity Benefit Act, 1961 and the Payment of Gratuity Act, 1972.

4.1.3 Indicative requirements of permits/ licenses to establish multi-MW (1 to 10 MW) AgriPV Project

Set out below is an indicative list of approvals that may be applicable in relation to solar project/ AgriPV Projects in the state of Gujarat. Apart from the below, depending upon the finalised model for implementation of solar project/ AgriPV Projects, certain other approvals may also be required to be taken. Further, the nature and extent of below mentioned approvals required is contingent on the location and nature of solar project/ AgriPV Project being implemented such as construction activities required to be undertaken.

NO.	APPROVAL NAME	ISSUING AUTHORITY	COMMENT
A. Central statutes			
1	Certificate of importer – exporter code	Directorate General of Foreign Trade, GoI (DGFT)	<ul style="list-style-type: none"> An Importer-Exporter Code (IEC) is a key business identification number which mandatory for export from India or Import to India. No export or import shall be made by any person without obtaining an IEC unless specifically exempted. IEC may be applied on behalf of a firm which may be a Proprietorship, Partnership, LLP, Limited Company, Trust, HUF, Society. Firm must have a PAN, bank account in the name of the firm and a valid address before applying. Address may be physically verified by the DGFT on issuance of the IEC.
2	Industrial Entrepreneur Memorandum Acknowledgement	Department of Industrial Policy and Promotion, GoI	-
3	Approval for diesel generator set	Electrical Inspector	<ul style="list-style-type: none"> Required as per Central Electricity Authority (Measures relating to Safety and Electric Supply) Regulations 2010.
4	Height clearance	Airports Authority of India (AAI)	<ul style="list-style-type: none"> If the project site is located beyond 20 km of the visual flight rules civil airport or 56 KM of instrument flight rules civil airport and if the height of the desired structure is below 150 meter above ground level, then NOC for height clearance from AAI is not required¹².
5	Defence Clearance / No objection certificate	Coordination division, Ministry of Defence	<ul style="list-style-type: none"> As per Procedure for issue of NOC for construction of Power Projects by Ministry of Defence, applications for grant/renewal of defence clearance for construction of power projects will be accepted by Ministry of Defence through and such approval shall be issued after due assessment of the project by Ministry of Defence and subject to terms and conditions as deemed necessary.
6	Employee's State Insurance Registration	Employee's State Insurance Corporation, Ministry of Labour & Employment	-
B. State specific statutes of Gujarat			
7	Intimation for establishing AgriPV Project	<ul style="list-style-type: none"> Gujarat Pollution Control Board Covered under Investor Facilitation Portal, please refer to paragraph 4.3 below 	<ul style="list-style-type: none"> Pursuant to direction issued by Central Pollution Control Board on 7 March 2016 and office order dated 12 April 2016 issued by Gujarat Pollution Control Board, solar power generation through solar photovoltaic cell, wind power and mini hydel power (less than 25 MW) is categorized in the white category. Therefore, there is no requirement to obtain consent to establish / consent to operate with respect to a solar project and only an intimation for setting up/ operation of such solar project is required to be provided to the Gujarat Pollution Control Board.

12 https://nocas2.aai.aero/nocas/AAI_Links/FAQ_1st_April_2015.pdf.

NO.	APPROVAL NAME	ISSUING AUTHORITY	COMMENT
8	Change in land use permission for setting up solar project	<ul style="list-style-type: none"> Collector of the relevant locations, Revenue Department, Government of Gujarat Covered under Investor Facilitation Portal, please refer to paragraph 4.3 below 	As discussed in paragraph 3.2.3 above, change in land use permission is required under the Gujarat Land Revenue Code if the solar project is envisaged to be set up on agricultural land.
8	Electricity connection and agreement for the supply of electrical energy	<ul style="list-style-type: none"> Relevant GUVNL subsidiary - UGVCL / MGVCL / DGVCL / PGVCL (depending on the location of the solar project) Covered under Investor Facilitation Portal, please refer to paragraph 4.3 below 	-
10	Water connection and agreement for supply of water	<ul style="list-style-type: none"> Gujarat Water Supply & Sewerage Board / Gujarat Water Infrastructure Limited / Sardar Sarovar Narmada Nigam Ltd / Gujarat Water Resources Development Corporation (depending on the location of the solar project) Covered under Investor Facilitation Portal, please refer to paragraph 4.3 below 	-
11	Building Permit / municipal licence / certificate of enlistment	<ul style="list-style-type: none"> Relevant municipality in Gujarat based on location of the project Covered under Investor Facilitation Portal, please refer to paragraph 4.3 below 	-
12	No objection certificate, compliance certificate and fire safety certificate	<ul style="list-style-type: none"> Regional Fire Officer / Chief Fire Officer, Gujarat (depending on the location of the solar project) Covered under Investor Facilitation Portal, please refer to paragraph 4.3 below 	Pursuant to Gujarat Fire Prevention and Life Safety Measures Act, 2013, all permanent buildings (excluding structure of temporary nature) are required to obtain no objection certificate, compliance certificate and fire safety certificate.

NO.	APPROVAL NAME	ISSUING AUTHORITY	COMMENT
13	Approval of Factory plan	Director of Industrial Safety and Health, Gujarat (depending on the location of the solar project)	This registration/ license is required to be procured for the solar generating stations.
14	Factory registration and license	Covered under Investor Facilitation Portal, please refer to paragraph 4.3 below	<p>The Factories Act, 1948 (Factories Act) defines a ‘factory’ to be any premises on which on any day in the previous 12 months, 10 or more workers are or were working and in which a manufacturing process is being carried on or is ordinarily carried on with the aid of power; or where at least 20 workers are or were working on any day in the preceding 12 months and on which a manufacturing process is being carried on or is ordinarily carried on without the aid of power.</p> <p>generating, transforming or transmitting power falls within the meaning of manufacturing process in the Factories Act.</p> <p>The Factories Act seeks compliance of the ‘occupier’ of a factory (defined as the person who has ultimate control over the affairs of the factory and in the case of a company, any one of the directors), with certain requirements to ensure occupational health and safety of workers.</p>
15	Registration under Gujarat Shops and Establishments (Regulation of Employment and Conditions of Service) Act, 2019		The Gujarat Shops and Establishments (Regulation of Employment and Conditions of Service) Act, 2019 apply to shops and establishments employing ten or more workers. Every establishment from the date of commencing business is required to obtain registration under the Gujarat Shops and Establishments (Regulation of Employment and Conditions of Service) Act, 2019.
16	Registration / licence under Building and Other Construction Workers Act, 1996		<p>The Building and Other Construction Workers Act, 1996 is applicable to every establishment in which ten or more building workers are employed or were employed on any day of the preceding twelve months in any building or other construction work.</p> <p>In case works are contracted to a third party contractor, such contractor is required to obtain these approvals.</p>
17	Registration/ licence under Contract Labour (Regulation and Abolition) Act, 1970 (Contract Labour Act)		<p>The Contract Labour Act is applicable to every establishment in which twenty or more workmen are employed or were employed on any day of the preceding twelve months as contract labour, and makes it compulsory for principal employer of such establishment to seek registration under the Contract Labour Act. Also, no contractor may execute any work through contract labourers except under and in accordance with a license issued in that behalf by the licensing officer.</p> <p>In case works are contracted to a third party contractor, such contractor is required to obtain these approvals.</p>
18	Recognition to the Employer Provident Fund	Commissioner of Income Tax, Gujarat	-

NO.	APPROVAL NAME	ISSUING AUTHORITY	COMMENT
C. State specific statutes of Madhya Pradesh			
19	Intimation for establishing AgriPV Project	<ul style="list-style-type: none"> Madhya Pradesh Pollution Control Board Covered under single window (clearance) system, please refer to paragraph 4.3 below 	<ul style="list-style-type: none"> Pursuant to direction issued by Central Pollution Control Board on 7 March 2016 and notification dated 10 December 2021 issued by Madhya Pradesh Pollution Control Board, solar power generation through solar photovoltaic cell, wind power and mini hydel power (less than 25 MW) is categorized in the white category. Therefore, there is no requirement to obtain consent to establish/ consent to operate with respect to a solar project and only an intimation for setting up/ operation of such solar project is required to be provided to the Madhya Pradesh Pollution Control Board.
20	Change in land use permission for setting up solar project	<ul style="list-style-type: none"> Sub-Divisional Officer/ MPNRED Covered under single window (clearance) system, please refer to paragraph 4.3 below 	As discussed in paragraph 3.2.5 above, change in land use permission is required under the MP Land Revenue Code if the solar project is envisaged to be set up on agricultural land.
21	Electricity connection and agreement for the supply of electrical energy	<ul style="list-style-type: none"> Relevant MPDISCOMs as mentioned in paragraph 3.1.11(vi) above (depending on the location of the solar project) Covered under single window (clearance) system, please refer to paragraph 4.3 below 	-
22	Water connection and agreement for supply of water	<ul style="list-style-type: none"> Water Resources Department, Madhya Pradesh Covered under single window (clearance) system, please refer to paragraph 4.3 below 	-
23	Building Permit/ municipal licence/ certificate of enlistment	<ul style="list-style-type: none"> Relevant municipality in Madhya Pradesh based on location of the project Covered under single window (clearance) system, please refer to paragraph 4.3 below 	-
24	No objection certificate, compliance certificate and fire safety certificate	<p>Relevant municipality in Madhya Pradesh based on location of the project</p> <p>Covered under single window (clearance) system, please refer to paragraph 4.3 below</p>	Unlike state of Gujarat, state of Madhya Pradesh has not enacted a state specific statute in relation to fire and safety.

NO.	APPROVAL NAME	ISSUING AUTHORITY	COMMENT
25	Approval of Factory plan	Directorate of Industrial Health and Safety, Madhya Pradesh (depending on the location of the solar project) Covered under single window (clearance) system, please refer to paragraph 4.3 below	This registration/ license is required to be procured for the solar generating stations.
26	Factory registration and license		<p>The Factories Act defines a ‘factory’ to be any premises on which on any day in the previous 12 months, 10 or more workers are or were working and in which a manufacturing process is being carried on or is ordinarily carried on with the aid of power; or where at least 20 workers are or were working on any day in the preceding 12 months and on which a manufacturing process is being carried on or is ordinarily carried on without the aid of power.</p> <p>Generating, transforming or transmitting power falls within the meaning of manufacturing process in the Factories Act.</p> <p>The Factories Act seeks compliance of the ‘occupier’ of a factory (defined as the person who has ultimate control over the affairs of the factory and in the case of a company, any one of the directors), with certain requirements to ensure occupational health and safety of workers.</p>
27	Registration under Madhya Pradesh Shops and Establishments Act, 1958		<p>The Madhya Pradesh Shops and Establishments Act, 1958 apply to all shops, establishment and commercial establishments.</p> <p>Every establishment from the date of commencing business is required to obtain registration under the Madhya Pradesh Shops and Establishments Act, 1958.</p>
28	Registration/ licence under Building and Other Construction Workers Act, 1996		<p>The Building and Other Construction Workers Act, 1996 is applicable to every establishment in which ten or more building workers are employed or were employed on any day of the preceding twelve months in any building or other construction work.</p> <p>In case works are contracted to a third party contractor, such contractor is required to obtain these approvals.</p>
29	Registration/ licence under Contract Labour Act		<p>The Contract Labour Act is applicable to every establishment in which twenty or more workmen are employed or were employed on any day of the preceding twelve months as contract labour, and makes it compulsory for principal employer of such establishment to seek registration under the Contract Labour Act. Also, no contractor may execute any work through contract labourers except under and in accordance with a license issued in that behalf by the licensing officer.</p> <p>In case works are contracted to a third party contractor, such contractor is required to obtain these approvals.</p>
30	Recognition to the Employer Provident Fund	Commissioner of Income Tax, Madhya Pradesh	

- 4.2 List the barriers for an AgriPV project to be installed on agricultural land for additional large-scale solar generation, co-located with agriculture. Analyse the possibility for a new, commercial or hybrid category for an AgriPV project, so that power generated from it may either be used by farmer himself or sold through government utility, through PPA.**
- 4.2.1** As discussed in paragraph 3.2.3 above, the Gujarat Land Revenue Code restricts the usage of agricultural land for any purpose other than agriculture unless a change in land use permission has been obtained in accordance with the Gujarat Land Revenue Code. Further, any utilisation of agricultural land in absence of such permission may result in penal consequences under the Gujarat Land Revenue Code. Given the aforesaid background and since the AgriPV Project envisages simultaneous usage of land for agriculture and solar power generation, a hybrid / mixed usage of agricultural land specifically for AgriPV Project would be required.
- 4.2.2** Similarly, as discussed in paragraph 3.2.5 above in relation to the state of Madhya Pradesh, the MP Land Revenue Code restricts the usage of agricultural land for any purpose other than agriculture, unless a change in land use permission has been obtained in accordance with the MP Land Revenue Code. Further, any utilisation of agricultural land in absence of such permission may result in penal consequences under the MP Land Revenue Code. Given the aforesaid background and since the AgriPV Project envisages simultaneous usage of land for agriculture and solar power generation, a hybrid/ mixed usage of agricultural land specifically for AgriPV Project would be required.
- 4.2.3** In relation to above-mentioned hybrid / mixed usage, one such instance is the Delhi Master Plan 202113 which provides for mixed use regulations for lands located in Delhi, though this applies in relation to lands located in an urban area. The Delhi Master Plan permits non-residential activity in residential premises by laying down the conditions under which mixed use may be applied in different situations and provides for general procedure to be followed for implementation of mixed use policy, and mitigating measures to be taken to counter the effect of such non-intended use. In order to meet the growing demand of commercial activities and overcome the shortfall of available commercial space in Delhi, a liberalized provision of mixed use in residential areas has been adopted adhering to the requisites of the environment, while achieving better synergy between work place, residence and transportation.
- 4.2.4** The introduction of such hybrid / mixed usage specifically for AgriPV Project is further required to ensure that the farmers setting up the AgriPV Project are not subjected to any adverse proceeding due to regulatory uncertainties for undertaking agriculture and solar power generation, simultaneously as mentioned in paragraph 3.2.3 above.
- 4.3 List potential practices or avenues to obtain a construction permit on agricultural land under present legal framework and authorities to be contacted. The possible avenues/offices of redressal for obtaining permit/permission for an AgriPV project in each state.**
- 4.3.1** Please refer to our response in paragraph 4.1.3 above setting out a list of indicative approvals required for setting up a solar power project and the issuing authority thereof.
- 4.3.2** In relation to such approval requirements and redressal mechanism, the Government of Gujarat has enacted Gujarat Single Window Clearances Act, 2017 (“Gujarat Single Window Act”) and Gujarat Single Window Clearances Rules, 2017 (“Gujarat Single Window Rules”) which provide a speedy process through investor facilitation portal¹⁴ for issue of various approvals required for setting up industrial undertakings with an aim to promote industrial development and promote an investor friendly environment in the state of Gujarat. The term ‘industrial undertaking’ is defined in the Gujarat Single Window Act to mean: “undertakings specified by the State Government in this regard which are engaged in manufacturing or processing or both or providing service or doing any other business or commercial activity”. Therefore, it appears that the Gujarat Single Window Act applies purely to industrial undertakings carrying out business or commercial activity and does not envisage a mixed activity under AgriPV Project combining agriculture and commercial solar power generation.

¹³ Notified by the Ministry of Urban Development.

¹⁴ Available at <https://ifp.gujarat.gov.in/DIGIGOV/login.jsp>.

4.3.3 Traditionally, approvals are granted by the relevant government departments based on jurisdiction and powers delegated under the legislations providing the requirement for obtaining approvals. Therefore, the applicants need to approach the relevant government departments for submitting separate applications in the prescribed manner. However, the Gujarat Single Window Act provides a single window mechanism on the investor facilitation portal where applicants can submit common application for obtaining state specific approvals as set out in Annexure 1. Pursuant to receipt, such applications are automatically forwarded to the respective government departments, head of government departments and regional offices who are then required to scrutinize the applications as per the provisions of the relevant legislations, raise query/ clarification (if any) within 7 days of receipt of applications and communicate their decision of either approving or rejecting the application by giving reasons in writing within the prescribed time period as set out in Annexure 1.

4.3.4 Under the scheme of the Gujarat Single Window Act, the following committees and agency have been established to facilitate the process for grant of approvals set out in Annexure 1:

COMMITTEE/AGENCY	POWERS AND FUNCTIONS
<p>District Level Facilitation Committee</p>	<ul style="list-style-type: none"> • review and monitor processing of applications by competent authorities; • inform applicant of the date on which application was received by the competent authority and date on which application has been approved or rejected; • ensure that competent authorities issue approvals within the prescribed timelines in the Gujarat Single Window Rules; • in relation to applications pending beyond the prescribed timeline, review such application, direct competent authorities for taking decision; • scrutinize records regarding delay and recommend to State Level Facilitation Committee for taking appropriate disciplinary action against the competent authority; • take necessary steps to assist industrial investments in district; • suggest policy level suggestions to Single Window Facilitation Committee;
<p>Single Window Facilitation Committee</p>	<ul style="list-style-type: none"> • review and monitor processing of applications by competent authorities and district level facilitation committee; • inform applicant of the date on which application was received by the competent authority and date on which application has been approved or rejected; • to forward cases with remarks and relevant documents to state level facilitation committee; • in relation to applications pending beyond the prescribed timeline, review such application, direct competent authorities for undertaking necessary action; • conduct inquiry for reasons of delay and call for necessary information and personal appearance of competent authority; • post inquiries recommend action against competent authority in case of willful default for delaying the approval process.

COMMITTEE/AGENCY	POWERS AND FUNCTIONS
State Level Facilitation Committee	<ul style="list-style-type: none"> • take decision on development of new infrastructure required for industrial development; • take policy level decisions on sector specific development; • direct competent authority to fast track the applications; • consider matters referred by district level facilitation committee and single window facilitation committee and take appropriate decisions; • make recommendation / suggestions for development of investment atmosphere; • decide on any other development related aspects.
Investor Facilitation Agency	<ul style="list-style-type: none"> • guide and assist entrepreneurs to set up industries; • carry out investment promotion activities; • render assistance in policy formulation for industrial progress; • coordinate with various state government departments for investor applications, integration of websites with investor facilitation portal and any other support required for smooth functioning of investor facilitation portal; • resolve investor grievances related to any approvals / incentives/ land related issues /technical issues.

- 4.3.5** Similar to Gujarat Single Window Act and Gujarat Single Window Rules, the Government of Gujarat has enacted the Madhya Pradesh Investment Facilitation Act, 2008 (“**MP Investment Act**”) and Madhya Pradesh Investment Promotion (Online Dynamic Combined Application Form and Time Limit for Processing of Applications) Rules, 2018 (“**MP Investment CAF Rules**”) which provides a speedy process through single window (clearance) system¹⁵ where applicants can submit common application for obtaining various state specific approvals required for setting up ‘projects’ as set out in **Annexure 2**. The single window (clearance) system envisages to facilitate new investments by reducing procedural requirements and provide a friendly environment to an investor in the state of Madhya Pradesh. The term ‘project’ is defined in the MP Investment Act to mean “*undertaking with proposed investment for manufacturing or processing or both or providing service or doing any other business or commercial activity in the State as may be specified by the state government or an existing unit undertaking its expansion or diversification or modernization*”. Therefore, similar to the state of Gujarat, it appears that the MP Investment Act applies to industrial undertakings carrying out business or commercial activity and does not envisage a mixed activity under AgriPV Project combining agriculture and commercial solar power generation.
- 4.3.6** As mentioned in paragraph 4.3.3 above, instead of traditional requirement for an applicant to approach the relevant government departments for submitting separate applications in the prescribed manner to obtain approvals, the MP Investment Act provides a single window (clearance) system on the designated portal where applicants can submit common application for obtaining state specific approvals in accordance with the procedure and timelines set out in the MP Investment CAF Rules. Pursuant to receipt, such applications are automatically forwarded to the respective government departments, head of government departments and regional offices who are then required to scrutinize the applications as per the provisions of the relevant legislations to process and issue the required approvals.
- 4.3.7** Under the scheme of the MP Investment Act, the following committees have been established to facilitate the process for grant of approvals set out in **Annexure 2**:

¹⁵ Available at <https://invest.mp.gov.in/>.

COMMITTEE/AGENCY	POWERS AND FUNCTIONS
District Level Committee Nodal Agency: District Trade and Industry Centre of the concerned district	<ul style="list-style-type: none"> • carry out the investment promotional activities in the district; • guide and assist entrepreneurs in investment and in setting up their projects or industrial units in the district; • issue application forms for various approvals, receive filled up forms, facilitate required approvals from the respective government departments and authorities within stipulated time; • promote secretarial service to the district level committee.
State Level Committee Nodal Agency: Madhya Pradesh Trade and Investment Facilitation Corporation Limited, Bhopal	<ul style="list-style-type: none"> • carry out investment facilitation activities by extending assistance to investors; • function as the secretariat for apex and state level committee; • co-ordinate and follow up with the concerned departments for obtaining the sanction or approvals required for setting up projects or industrial undertakings; • prepare information regarding rule, procedures, application forms etc. and make them available to entrepreneurs; • received from investors or entrepreneurs the combined application forms, forward the same to concerned government departments for getting approvals in the stipulated timeline.
Apex Level Committee Nodal Agency: Madhya Pradesh Trade and Investment Facilitation Corporation Limited, Bhopal	<ul style="list-style-type: none"> • examine the proposals for setting up of any project or industrial undertaking which are submitted before it; • take appropriate decisions including sanction of customised packages on such proposals; • call investors and concerned government departments/ authorities to present the proposal for setting up a project or industrial undertaking; • consider matters referred to it by the state level committee and take appropriate decisions.

4.3.8 Additionally, the state of Madhya Pradesh has enacted the Madhya Pradesh Lok Sewaon Ke Pradan Ki Guarantee Vidheyak, 2010 (“MP Guarantee of Public Service Delivery Act”) which provides for delivery of services to the people of the state within the stipulated time limit and an oversight system in case such services are not delivered within the stipulated timeline. Under the scheme of the MP Guarantee of Public Service Delivery Act, a government department/ authority is required to either provide the service or deny it with a written explanation within the designated time period which typically ranges from 3 to 60 days depending on the nature of service sought. Any failure to comply with such timeline allows the applicant to lodge an appeal with a first appeal officer and if not resolved still, with second appellate authority. The first appeal officer and second appellate authority are vested with same powers as civil court while trying a suit under the Code of Civil Procedure, 1908. Further, if the second appellate authority is of the opinion that: (a) a designated officer of a government department has either failed to provide service without sufficient and reasonable cause or caused delay in providing the service or (b) first appeal officer failed to decide the appeal within the stipulated timeline without any sufficient and reasonable cause, it may impose a penalty ranging from INR 500 to INR 5,000 and/or recommend disciplinary action against such designated officer of government department/ first level officer under the applicable service rules. Further, the second appellate authority may order to give compensation to the applicant from above-mentioned penalty amounts.

4.4 Does legislation in place permit farmers to take credit against agricultural land as collateral? If yes, is it actually happening? Any barriers that the farmers face? Are banks able to seize the collateral in case of default?

- 4.4.1** Credit for agricultural activities may be availed by the farmers from commercial banks, regional rural banks, small finance bank and cooperative banks. In India, the Reserve Bank of India (“RBI”) regulates the currency and credit system of the country and supervises the scheduled commercial and cooperative banks, All India Financial Institutions, Local Area Banks, Small Finance Banks, Non-Banking Financial Companies etc. Under the Master Directions on Priority Sector Lending, agriculture has been identified as a priority sector and domestic commercial banks, regional rural banks, small finance banks and foreign banks with 20 branches or above are to earmark 18% of Adjusted Net Bank Credit (“ANBC”) or Credit Equivalent to Off-Balance Sheet Exposure (“CEOE”) whichever is higher for agriculture sector out of which 10% is prescribed for Small and Marginal Farmers.¹⁶ Lending to agriculture sector includes farm credit (agriculture and allied activities) lending for agriculture infrastructure and ancillary activities.
- 4.4.2** NABARD has been established by the GoI with a mission to promote sustainable and equitable agriculture and rural development through participative financial and non-financial interventions, innovations, technology and institutional development. After the establishment of NABARD all agricultural credit functions of RBI and refinancing functions of the erstwhile Agricultural Refinance and Development Corporation has been transferred to NABARD.
- 4.4.3** Farmers also avail credit through the Kisan Credit Card Scheme which was launched in 1998 to provide both short term and long term loans to the farmers. The Kisan Credit Card Scheme was launched with the objective to provide credit support to the farmers through a simplified route. The objective of the Kisan Credit Card Scheme, among others, is:
- (a) to meet the short term credit requirements of farmers for cultivation of crops and post-harvest expenses;
 - (b) to meet the consumption requirement of farmer’s household;
 - (c) to provide working capital for maintenance of farm assets and activities allied to agriculture.

Under the Kisan Credit Card Scheme, security may be created based on the credit availed by the farmers in the following manner: (i) for credit up to INR 100,000 - no security requirement; (ii) for credit above INR 100,000- banks may require either hypothecation of crops or collateral security or both, at its discretion.

Further, banks shall create on-line creation of charges on land records, if the same is allowed in a state.

- 4.4.4** In India, the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act 2002 (“SARFAESI Act”) is the principal legislation which deals with enforcement of security interest by a secured creditor in case of default in repayment of secured debt or any instalment thereof. Under the SARFAESI Act, security interest inter alia includes any right, title or interest of any kind upon property created in favour of any secured creditor. The SARFAESI Act allows the creditor to enforce the security interest

/// What is really required to be shown is the connection with an agricultural purpose and user and not the mere possibility of user of land, by some possible future owner or possessor, for an agricultural purpose. It is not the mere potentiality, which will only affect its valuation as part of “assets”, but its actual condition and intended user which has to be seen for purposes of exemption from wealth tax. One of the objects of the exemption seemed to be to encourage cultivation or actual utilisation of land for agricultural purposes. If there is neither anything in its condition, nor anything in evidence to indicate the intention of its owners or possessors, so as to connect it with an agricultural purpose, the land could not be “agricultural land” for the purposes of earning an exemption under the Act. Entries in revenue records are, however, good prima facie evidence.”

without the intervention of the court. It is pertinent to mention that enforcement of security interest over agricultural land is not allowed under the SARFAESI Act. Therefore, any security interest created by a person to secure a debt over an agricultural land cannot be enforced under the SARFAESI Act and the creditor would have to seek other remedies. However, in the matter of *ITC Limited v Blue Coast Hotels Limited*¹⁷, the Supreme Court while hearing an appeal on the application of SARFAESI Act with respect to agricultural land, observed that character of a land has to be determined on the facts of each particular case and the purpose for which the land is used would be a determining factor. The Supreme Court, placing reliance on the *Commissioner of Wealth Tax, Andhra Pradesh v. Officer-in-Charge (Court of Wards) Paigah*¹⁸ to interpret the term agricultural land held that:

- 4.4.5 As mentioned above, under the Constitution of India, matters relating to land (including agricultural land and transfer and alienation of agricultural land) is a state subject ie within the legislative competence of the State Legislatures with state government exercising administrative control on subject matters dealing with the same. Pursuant to the above, various states have enacted legislations dealing with agricultural loan and creation of security interest therein. The state of Gujarat has enacted the Gujarat Agricultural Credit (Provisions of Facilities) Act, 1979 (“Gujarat Agri Credit Act”), a comprehensive legislation to remove restrictions on alienation of certain agricultural lands so as to enable banks and other institutional credit agencies to provide credit on such lands and to provide for speedy recovery of the dues of such banks and credit agencies. The Gujarat Agri Credit Act deals with, among others, all matters related to agricultural loan and other incidental matters. ‘Agriculture’ has been defined under the Gujarat Agri Credit Act in an inclusive manner to include:

“making land fit for cultivation, cultivation of land, improvement and development of land including development of sources of irrigation, raising and harvesting of crops, horticulture, forestry, planting and farming and cattle breeding, animal husbandry, dairy farming, seed farming, fishing, pisciculture, apiculture, sericulture, piggery, poultry farming and such other activities as are generally carried on by agriculturists, dairy farmers, cattle breeders, poultry farmers and other categories of persons engaged in similar activities including marketing of agricultural products, their storage and transport and the acquisition of implements and machinery in connection with any such, activity and also includes the purpose enumerated in section 116 of the Co-operative Societies Act¹⁹; and the term “agricultural purpose” shall be construed accordingly”²⁰.

- 4.4.6 Under the Gujarat Agri Credit Act, an agriculturist²¹ is permitted to mortgage or create a charge on his land or any interest therein in favour of a bank for obtaining financial assistance. An agriculturist while creating a charge over his land while availing financial assistance has to make a declaration that he is the owner of the land and is creating a charge on the said land in favour of the bank for securing the financial assistance given by the bank. The security created by an agriculturist in favour of a bank would have priority over any other charge over such land or interest therein in favour of any person other than Government or co-operative society or any other bank, notwithstanding that such charge has been created prior in time. In case of different charge or mortgage created on the same land or interest therein by agriculturist in favour of government, or one or more co-operative societies or one or more banks, then the charge created to secure a

17 2018 (4) SCALE 628

18 (1976) 3 SCC 864

19 (a) Activities include improvement and development of agriculture and productive purposes, the erection, rebuilding or repairing of house for agricultural purposes, the purchase or acquisition of title to agricultural lands by tenant purchasers or tenants under the Bombay tenancy and Agricultural Lands Act, 1948, or any corresponding law for the time being in force in any part of the State; (b) liquidation of debt under the Bombay Agricultural Debtors Relief Act, 1947, or any corresponding law for the time being in force in any part of the State; (c) the purchase of agricultural lands by agriculturists whose agricultural lands have been acquired for any public purpose under the Land Acquisition Act, 1894 or any other law for the time being in force; (d) promoting the development of animal husbandry, dairy farming, poultry farming, pisciculture or fishery ; or I purchase of shares in a co-operative society engaged in the manufacture of sugar.

20 Section 2 (a) of the Gujarat Agri Credit Act.

21 “agriculturist” means a person who is engaged in agriculture and includes a co-operative society registered under the Co-operative Societies Act as a cooperative farming society”.

term loan for development purpose²² given by them will have priority over any other charges or mortgages created in favour of them. Further, in case the government or one or more co-operative societies or one or more banks have given term loan for development purpose to an agriculturist against the same security then charges or mortgage created over such security would rank inter-se among the creditors in accordance with the date of creation. On creation of a charges or mortgage over a land or interest by an agriculturist to avail financial assistance from any bank, then such bank has to give intimation to village accountant or such other revenues office as designated by the state government of the particulars of the charge or mortgage in its favour, and such village accountant or revenue office is to make note of the particulars of the security in the record of rights relating to such land.

4.4.6 The Gujarat Agri Credit Act prohibits a farmer from selling agricultural land until repayment of loan availed from a bank where such land has been mortgaged, unless prior permission is obtained from the bank in writing. However, the Gujarat Agri Credit Act allows the farmer to create pari passu charge in favour of a new bank for a fresh loan subject to the consent of the bank who had already provided loan to such farmer and holds charge over the subject land.

4.4.8 Recovery of Dues

- (a) Under the Gujarat Agri Credit Act, when an agriculturist makes any default in payment of the sum due and payable to the bank or have failed to comply with any terms and conditions of financial assistance, then an officer authorised by the state government may on application by a bank after making inquiry and pass an order against an agriculturist or his heirs or legal representatives, directing the payment of any sum due to the bank on account of financial assistance availed by such agriculturist by way of sale of such a land or interest therein against which charge or mortgage is created as security for financial assistance. The order passed by such authorised officer would be deemed to be a decree of a Civil Court and shall be executed in the same manner as a decree of such court. The Gujarat Agri Credit Act further states the above remedy is not the only remedy available with the banks and they may seek to enforce its rights in any other manner under any other law in force.
- (b) Under the Gujarat Agri Credit Act, banks are allowed to offer the land or the interest therein for public auction against which financial assistance has been availed by the agriculturalist in case of any default with the previous permission in writing from the district collector under whose jurisdiction the land is situated. Banks are also permitted to acquire the agricultural land or interest therein by itself in case the public auction fails to fetch the price which is sufficient to pay the bank the money due to it. Banks on acquiring the land are also allowed to sell the land within a period specified by the state government in this behalf. Banks are also allowed to lease the acquired land provided the term of lease is less than 1 year and the lessee does have any right to purchase such land or interest lease to him. It is pertinent to mention that while the banks are given the right to sell the land on which charges has been created, however such rights available with the banks are subject to other provisions of law which imposes restriction on purchase of land by non-agriculturist or by a person not belonging to a scheduled tribe or caste or on fragmentation of land or imposing ceiling on acquisition of land or interest therein.
- (c) Additionally, the Gujarat Agri Credit Act allows the state government to recover on behalf of banks pursuant to an order published in the official gazette any due from the agriculturist to the banks, by way of arrear of land revenue provided such financial assistance has been availed by the agriculturist to the purpose of carrying out any state sponsored scheme²³. Any amount recovered by the state government on behalf of the bank will be paid over to the bank after deducting any reasonable cost of collection as determined by the collector.

²² "term loan for development purposes" means financial assistance which generally results in improvement of agriculture or building up of tangible assets in agriculture; but does not include financial assistance for working capital expenses, seasonal agricultural operations or marketing crops.

²³ State Sponsored Scheme has been defined in the Gujarat Public Moneys (Recovery Of Dues) Act, 1979 as a "a scheme sponsored or adopted by the State Government or an officer authorised by it in this behalf for development of agriculture or industry and notified as such by the State Government or the authorised Officer, by a notification in the Official Gazette for the purposes of this Act."

4.4.9 Similar to the Gujarat Agri Credit Act, the state of Madhya Pradesh has enacted the Madhya Pradesh Krishi Udhar Pravartan Tatha Prakiran Upabandha (Bank) Adhiniyam, 1972 (“MP Agri Credit Act”), which allows agriculturist to create security interest over agricultural land for the purpose of availing financial assistance from bank. Under the MP Agri Credit Act, an agriculturist is allowed to create charges on movable property as well separately on crops in favour of a bank to secure the availed financial assistance, notwithstanding that he may not be the owner of the land on such crop is raised. A bank is allowed to sell the crop or other produce or other movables charged to the bank to recover any due from the agriculturist, through an official designated by the state government provided the bank is not allowed to sell or attach the necessary wearing apparel, cooking vessel, beds, and bedding of the defaulter, his wife and children, and such personal ornaments as, in accordance with the religious usage which cannot be parted with by any woman or tools of artisans and, if the defaulter is an agriculturist, his implements of husbandry, except an implement driven by mechanical power and such cattle and seed as may, in the opinion of the designated official be necessary to enable him to earn his livelihood as such or articles set aside exclusively for the use of religious endowments. The agriculturist is to make a declaration of creation of charge on land or other immovable property in favour of bank as per the prescribed form of the bank. The security interest created in favour of the bank would prevail over any charge in favour of any person other than state government, co-operative society or other banks. In case any charge has been created by an agriculturist in favour of any bank, state government or co-operative society prior to creating any charge with another bank then the charge created in favour of such bank, state government or co-operative society would have priority over the subsequent charge in favour of the bank. Further, any charge created in favour of a bank prior to any charge created in favour of a co-operative society would prevail over the charge created in favour of the co-operative society. In case of different charge or mortgage created on the same land or interest therein by agriculturist in favour of government, or one or more co-operative societies or one or more banks, then the charge created to secure a term loan for development purpose given by them will have priority over any other charges or mortgages created in favour of them. Whenever a bank creates a charge over a land or interest therein to secure the financial assistance provided to an agriculturist, then the bank is required to give intimation to the Tahsildar within whose jurisdiction the land is situated, particulars of such charge or mortgage, who shall then make noting of charge in the record of rights relating to the village in which the land is situated.

4.4.10 Recovery of Dues

- (a) Under the MP Agri Credit Act, banks are allowed to attach and sell any property against which any security interest has been created to secure a financial assistance through civil court and applying proceeds of such sale towards any money due to it from the agriculturist including the cost and expenses as may be awarded by the court.
- (b) Under the MP Agri Credit Act, banks may make an application to an official of the state government notified by the state government for recovering any sum due to the bank. Such official may make an order against an agriculturist or his heirs or legal representatives, directing the payment of any sum due to the bank from such agriculturist. Such order may be enforced by way of sale of the immovable property or movable property (as the case maybe) and/or attachment of such immovable property or movable property (as the case maybe) against which charge or mortgage is created as security for financial assistance. Such order shall be passed by such official of the state government after providing a notice of not less than 15 days to the agriculturist or heir or legal representatives of the agriculturist. Banks are also allowed to enforce the security interest in any other manner open to it under any other law in force.
- (c) Additionally, the MP Agri Credit Act allows the Banks to offer the land or the interest therein for public auction against which financial assistance has been availed by the agriculturalist in case of any default. Banks are also permitted to acquire the agricultural land or interest therein by itself in case the public auction fails to fetch the price which is sufficient to pay the bank the money due to it. Banks on acquiring the land are also allowed to sell the land within a period specified by the state government in this behalf. Banks are also allowed to lease the acquired land provided the term of lease is less than 1 year and the lessee does not

require any interest in such land leased to him. It is pertinent to mention that while the banks are given the right to sell the land on which charges has been created, such rights available with the banks are subject to other provisions of law which impose restriction on purchase of land by non-agriculturist or in excess of ceiling limit or involving fragmentation of land below a specific limited. Further banks are not allowed to sell any land or interest in such land belonging to a tribe declared aboriginal by the state government to another person not belonging to such tribe.

4.4.11 Barriers faced by farmers in accessing loans:

While the GoI has adopted a multi-agency model to increase credit flow to the agricultural sector, farmers still face certain difficulties in accessing farm loans. Since there are various agencies involved in extending credit facility to the farmers with each agency having its own mode and process of extending the credit facility, it would be difficult to set out the barriers faced by the farmers in accessing credit due to multitude of processes involved. Some of the indicative barriers faced by the farmers in accessing loans are as follows:

- (a) Long drawn application process for sanctioning of loan. Often the documentation process for availing loans are lengthy process with no standardised streamlined process. The time taken by bank officials for disposal of application also does not happen in a time bound manner creating a hindrance in farmers from accessing loans.
- (b) Title diligence of the land offered as security often takes a lot of time since most of the land records are not updated and digitised. Banks spend a considerable time in scrutinising the title of land since the documents are not available in a consolidated digitised manner and bank officials have to rely on physical verification of title of the land visiting different local authority's office under whose jurisdiction the land falls. In the event a farmer opts to avail multiple loan on the same piece of land since creation of charge facility is also not online in certain state's, farmers spend a considerable time in getting a loan sanctioned despite having title diligence of the land done before.
- (c) Often farmers are to submit no dues certificate from the banks which had extended the loan earlier to the farmer as a part of application process. There is no uniform format of no-due certificate and often lenders devise their in-house format which the farmers are to submit as a part of the loan application. Since the process of procuring no due certificate involves farmers liasoning between two banks the bureaucratic process stands as a hindrance in accessing loans by farmers.
- (d) Some of the rural areas in India are yet to be covered by banking modes often leaving farmers to opt for loans from unregulated modes like local money lenders etc through deposit of title deeds of lands.
- (e) Less awareness about various schemes of government pertaining to agricultural credit due to lack of sensitisation about various schemes and policies of the government aimed at providing credit facility to farmers.

4.5 ***Financial implications for the solar project developer/ owner as well as for the farmer. Please also highlight any tax implication on farmer/developer for establishing AgriPV power plant on the land of farmer. Whether developer and/or farmer may continue to have access to bank loans for their respective businesses i.e. AgriPV solar farms and agriculture respectively. Whether benefits /subsidies/minimum support price for farming may continue, even if agricultural land is also used for AgriPV power plant?***

4.5.1 Brief overview of the (Indian) Income tax regime

- (a) The domestic tax law in India is governed by the Income-tax Act, 1961 ("IT Act"). Income tax is levied by the Central Government at the national level. Each year the Finance Act is passed in the Parliament which revises the applicable rates of taxation and / or other provisions of the IT Act. The Indian fiscal year runs from 1 April to 31 March. Different rules apply for computation of various forms of income: salary, income from house property, profits and gains of business or profession, capital gains and income from other sources. The IT Act also exempts certain types of income like agricultural income etc.

- (b) Indian residents are subject to tax on their worldwide income (ie based on the residence rule) whereas non-residents are subject to tax in India only on income that is sourced in India (ie based on the source rule). Generally, an Indian tax incidence arises if either the residency criteria or the source rules are satisfied.

4.5.2 Scheme of taxation applicable for farmers earning income solely from agriculture and developer earning income solely from solar power generation

FOR FARMERS	FOR DEVELOPERS
<p>The Constitution of India enables the Parliament to levy tax on income other than Agricultural income²⁴. Accordingly, section 10(1) of the IT Act exempts agricultural income from liability under income tax.</p> <p>For context, “agricultural income²⁵” has been defined to mean:</p> <ul style="list-style-type: none"> a. Any rent or revenue derived from land which is situated in India and is used for agricultural purposes²⁶; b. Any income derived from such land by agricultural operations including processing of the agricultural produce, raised or received as rent-in kind, so as to render it fit for market, or sale of such produce; and 	<p>We understand that Developers are Indian domestic companies engaged in the business of purchasing solar panels and using them for generation of electricity. Given that the Developer is an Indian tax resident, it will be taxed in India on its global income.</p> <p>An Indian domestic company is currently subject to a general corporate tax rate of 30% (plus applicable surcharge²⁷ and cess). However, companies may be entitled to avail of certain concessional tax rates ie 25% / 22% (plus applicable surcharge and cess) in case certain conditions are fulfilled. Specifically, in case certain turnover criteria are met, the company would be entitled to avail the 25% tax rate²⁸.</p> <p>As part of the amendments brought in by the recent corporate tax rate reforms, domestic companies can elect for a reduced tax rate of 22% (plus applicable surcharge²⁹ and cess) subject to fulfilment of certain conditions such as not claiming specific tax concessions and holidays. Additionally, subject to fulfillment of certain additional considerations (commencement of operations by a particular date, company formation without splitting up of existing business, installation of new machinery etc) a domestic company engaged in manufacturing activities, may be entitled to avail concessional tax rate of 15% (plus applicable surcharge³⁰ and cess). To ease readability, we have not duplicated the applicable surcharge and cess amounts in the rest of the memorandum.</p>

24 Entry 82 of List – I of the Seventh Schedule of the Constitution of India.

25 Section 2(1A) of the IT Act.

26 The Supreme Court of India in CIT v. Raja Benoy Kumar Sahas Roy, (1957) 32 ITR 466 has held that the land is said to be used for agricultural purposes where two types of operations are carried out on such land:

- a) Basic Operations: These involve cultivation of the ground, in the sense of tilling of the land, sowing of the seeds, planting and similar operations on the land. Such basic operations demand the expenditure of human labor and skill upon the land itself and further they are directed to make the crop sprout from the land.
- b) Subsequent Operations: After the crop sprouts from the land, there are subsequent operations which have to be resorted to by the agriculturists for the efficient production of the crop such as, weeding, digging the soil around the growth, removal of undesirable growth, preventing the crop from insects and pests and tending pruning, etc.

Both the basic and subsequent operations together form the integrated activity of the agriculturist. The performance of subsequent operations on the produce, without performing basic operations would not impart agricultural character to the activity. They should be in conjunction with, and in continuation of, the basic operations which is sine qua non for agricultural purpose.

27 Surcharge is payable as a percentage of the income-tax payable. Cess of 4% is then levied on the aggregate of income-tax and surcharge. For domestic companies, the rate of surcharge is 7% if income exceeds INR 10 million but does not exceed INR 100 million; and 12% if income exceeds INR 100 million.

28 The domestic law provides that for income of FY 2018-19, the concessional rate of 25% shall apply if the turnover of the company was up to INR 4,000 million. Given that this is linked to the turnover based criteria for an earlier year and not the relevant year, availability of the same to entities incorporated after the said years is doubtful.

29 The rate of surcharge in case of a company opting for concessional rate shall be flat 10% irrespective of amount of income.

30 Ibid.

FOR FARMERS	FOR DEVELOPERS
<p>c. Any income attributable to a building used for agricultural purposes. Under this scenario, where farmers income is related to agricultural activities, it should qualify as “agricultural income” and consequently be exempt from tax.</p>	<p>Under the IT Act, generation of electricity has been specifically included as a manufacturing activity³¹. Therefore, in the present case, the Developer should be entitled to a concessional 15% tax rate especially if it is a newly or recently incorporated entity. However, such concessional tax rates have a sunset clause, and the manufacturing entities must commence within the given time frame. Conditions for availing such concessional tax rate has been listed in the Annexure 3.</p> <p>It is pertinent to note that a domestic company is also subject to a Minimum Alternate Tax (“MAT”) at the rate of 15% where tax on its total income under normal provisions of the IT Act is less than 15% of the adjusted book/ accounting profits of such company. Credit of the MAT paid is available for set off for a period of 15 subsequent years.</p> <p>Domestic companies that elect for the 15% or 22% concessional tax rate would not be subject to any MAT. At the same time, such companies would not be entitled to set off past MAT credit or unabsorbed depreciation, accumulated prior to the year of election of such reduced rate of tax. In the present case, since the Developer would likely be a newly incorporated domestic company, it would not have any past MAT credit and should be able to conveniently opt for such reduced / concessional tax rates.</p>
	<p>Tax Incentives. While computing its taxable income, Developer would be entitled to claim certain deductions subject to the fulfilment of the prescribed conditions. A notable deduction relevant for solar business would be depreciation related benefits. Depreciation is to be reduced from the written down value (“WDV”) of each block of assets³² viz, buildings, furniture and fittings, machinery and plant, intangible assets etc. Certain specified machinery and plant used in the solar industry, such as solar power generating systems, solar-photovoltaic modules and panels for water pumping and other applications etc enjoy a higher rate of depreciation at 40% of the WDV of the value of the block³³.</p>

4.5.3 Scheme of taxation where farmer is earning income from agriculture produce and solar power generation (considering change in land use permission from agricultural to commercial / mixed use)

Under this scenario, we understand that the farmers would procure solar panels on their own account and use them to generate solar power. Such electricity would be utilized for their personal requirements and any excess electricity produced would be sold to third parties³⁴. Income produced from solar power generation is unlikely to qualify as “agricultural income” as defined under the IT Act. There may be some room to argue that given the peculiar facts of the present proposition, where the land continues to be used for agricultural purposes, income earned on account of solar power generation could qualify as agricultural income. However, such interpretation is likely to be viewed as aggressive and be contested by the tax authorities.

In addition, the farmers would carry out the agriculture activities and derive “agricultural income”. Thus, farmers would be generating “agricultural income” along with non-agricultural income.

As discussed above, “agricultural income” is exempt from income tax. In case of a taxpayer generating both agricultural and non-agricultural income, while the “agricultural income” would continue to be exempt, such agricultural income would be included for determining the applicable

31 Explanation to sub-clause 2 of section 115BAB of IT Act.

32 IT Act follows the concept of block of assets, which means a group of assets falling within a class of assets. Depreciation rates are prescribed for a block of assets.

33 In case the taxpayer does not elect for the concessional tax regime, additional one-time depreciation of 20% is available in case new machinery or plant is acquired and installed after 31st March 2005.

34 Farmers would be required to undertake TCS compliance on sale of electricity, where monetary threshold under section 206C(1H) are met and the buyer of such electricity is not Central Government, state government etc.

tax rates, basis various slabs of income, for taxing non-agricultural income. Such clubbing of income is known as partial integration of “agricultural income” with non-agricultural income.

Partially integrating the “agricultural income” may increase the tax liability on non-agricultural income. Partial integration is followed to compute the tax on non-agricultural income only when following two conditions are met:

- (a) Non-agricultural income of the taxpayer exceeds the maximum exemption limit³⁵; and
- (b) Net-agricultural income of the taxpayer exceeds INR 5,000.

The following steps are followed to carry out partial integration:

- (a) Add agricultural income and non-agricultural income and calculate tax on the aggregate income (“Amount A”);
- (b) Add agricultural income to the maximum exemption limit available in case of a taxpayer and compute tax on such aggregate income (“Amount B”);
- (c) Deduct Amount A from Amount B. The amount so arrived would be the income tax payable by the taxpayer; and
- (d) The taxpayer may claim rebate, if available and add applicable surcharge and cess to the tax amount determined above.

For additional clarity, please see below an illustrative computation of income for a farmer earning both agricultural and non-agricultural income. For the purposes of this computation, we have assumed that the farmer aged 35 years is earning INR 350,000 as “agricultural income” and INR 500,000 as non-agricultural income.

PARTICULARS	AMOUNTS (IN INR)	
Step 1		
Aggregate of agricultural and non-agricultural income (INR 350,000 + INR 500,000)	850,000	
Tax on aggregate income (“Amount A”)		82,500
Step 2		
Add: Maximum exemption limit (INR 250,000) to agriculture income of INR 350,000	600,000	
Tax on the above (“Amount B”)		32,500
Step 3		
Deduct Amount A from Amount B (82,500-32,500)		50,000
Tax on non-agricultural income		50,000
Step 4		
Less: Rebate under section 87A	12,500	
Add: Cess @ 4%	1,500	
Amount arrived under this step (50,000 – 12,500 + 1,500). Total tax payable		39,000

Additionally, the farmer may opt for presumptive taxation regime, if the turnover from solar power business is less than INR 20,000,000. Presumptive taxation was introduced to provide relief to small taxpayers. With such an election, the minimum net income is calculated at 8% of the turnover (6% in case payments are received through cheque / electronic clearing system) for income tax purposes. However, under presumptive tax regime, the farmer would not be able to claim depreciation on account of solar panels.

35 Maximum exemption limit depends on the progressive slab rates applicable to taxpayers. (i) In case of Individuals below 60 years of age it is INR 250,000; (ii) In case of individuals between 60 to 80 years of age it is INR 300,000 and; (iii) In case of individuals above 80 years of age it is INR 500,000.

Alternatively, the farmer may incorporate a domestic company to run the solar generation business separately. They would be eligible for concessional rate and depreciation as described in paragraph 4.5.2 above (please refer to second column of the table). However, any moneys distributed from the company to farmers hands would suffer another layer of tax in the nature of dividend taxes.

Separately, we note that to undertake solar generation activity the farmer would be required to convert the farmland from agricultural use to commercial / mixed use. However, the farmer would continue the agriculture activities on such land. The IT Act carves out “agricultural land” as a “capital asset”. As a result of such carveout, capital gains tax is not leviable on the sale / transfer of agricultural land and the transfer is completely exempt.

Once the farmland is converted for commercial / mixed use, at time of eventual sale of land by the farmer, the tax authorities may allege that farmland does not retain the character of “agricultural land”. Accordingly, capital gains tax may be levied on account of such transfer³⁶. Having said that, characterization of “agriculture land” is dependent on several factors including but not limited to (i) whether the land was ordinarily used for agriculture purposes; (ii) whether the income derived from agricultural operations bore rational proportion to the investment in purchasing the land; (iii) whether permission was obtained for use of the land for non-agricultural purposes; (iv) whether agricultural land had ceased to be put to agricultural use etc. Therefore, it may be possible to argue that the land retains agricultural nature on account of the farming activities also being carried out. However, in absence of any judicial guidance on mixed use of land for agriculture and non-agricultural purposes protracted litigation on character of land, viz., agricultural or non-agricultural cannot be ruled out.

Where the transfer of land is subject to capital gains tax, the farmers may be able to claim exemption of capital gains tax on investing the capital gains amount in another land for agricultural purposes³⁷ or where the gains are instead invested in a residential house, subject to fulfilment of certain conditions³⁸.

- 4.5.4 Current scheme of taxation where farmer is earning income from agriculture produce and lease rent payable by developer (considering change in land use permission from agricultural to commercial/mixed use)

FOR FARMERS	FOR DEVELOPERS
Under this scenario, lease rent payable by the Developer is likely to be classified as non-agriculture income for the farmer. Hence, tax considerations as described in the scenario above would be applicable.	The Developer would be under an obligation ³⁹ to withhold tax at the rate of 1% on the lease rents payable to the farmers ⁴⁰ .

- 4.5.5 Recommendation for change(s) required in IT Act to incentivise farmers for participating in AgriPV Projects.

(a) Exemption of Income generated from AgriPV Projects by certain small farmers

- (i) As previously discussed, income derived from carrying on solar generation activity may not qualify as “agricultural income” and could be subject to tax as laid out above.

36 Any immovable property held for more than 24 months is classified as long-term capital asset and the taxable capital gain on them will be the sale consideration or Tax Fair Market Value (“Tax FMV”) less expenditure, less the indexed cost of acquisition, less the indexed cost of improvement. Long-term capital gain (“LTCG”) is taxable at 20% (plus applicable surcharge and cess). Else, as short-term capital asset taxable at progressive slab rates applicable to the individual.

37 Any capital gain arising to an individual farmer from use of any land which was used for agricultural purposes for a period of at least 2 years immediately prior to the date of transfer shall be exempt to the extent such capital gain is invested in purchase of another land for agricultural purposes within a period of 2 years. To claim the exemption, the farmer must not transfer the new land within a period of 3 years from the date of acquisition.

38 Any capital gain arising to an individual from transfer of a capital asset, mixed used land farmland in this case, shall be exempt in full, if the entire net sales consideration is invested in purchase of one residential house in India within a one year before or 2 years after the date of transfer of such an asset or in the construction of one residential house in India within 3 years after the date of transfer.

39 The threshold for withholding tax on rent is INR 240,000.

40 If Farmers tax registration like PAN is not shared with the Developer, withholding tax would be deducted at the rate of 20%.

- (ii) As a measure to incentivize small farmers, amendments may be introduced to exempt income derived directly by such Farmers from AgriPV Projects. Subject to constitutionality, the contours of the exemption may be deliberated upon later.
- (iii) This will help aid small farmers in adopting AgriPV Projects sooner in the country.
- (b) Installing AgriPV Projects without losing out on “agricultural land” characterization
 - (i) As described above, change in land use from agriculture to commercial / mixed use may be used as a ground by the tax authorities to deny capital gains tax exemption to the farmers at the time of eventual sale of farmland.
 - (ii) Appropriate amendments may be brought in the IT Act for continuation of such exemption notwithstanding installation of solar panels on the farms.
 - (iii) This will ensure continuation capital gains tax exemption for the farmers opting to install AgriPV Projects on their farms.

4.5.6 Access to bank loans by developer and/or farmer for their respective businesses

Typically, financial credit facilities are tailor made for the agricultural sector and are advanced to farmers e.g. the Master Circular on the Kisan Credit Card Scheme published by RBI categorises farmers (individual/joint borrowers who are owner cultivators as eligible person for availing the Kisan Credit Card Scheme). The procedure to grant agricultural loans and the process of scrutiny of loan application varies from organisation to organisation and the same are subject to their internal guidelines. While there are no uniform eligibility criteria applicable for agricultural loans, one of the eligibility criteria for availing agricultural loans was that the person applying for an agricultural loan must be a farmer. Therefore, an individual when engaged simultaneously in agriculture and commercial solar power generation as envisaged under the AgriPV Project, may not be considered as a farmer and may not be able to avail agriculture loans. Further, if a farmer has already taken an agricultural loan by offering agricultural land as a collateral, lenders may not provide financing for the Agri PV Project due to the pre-existing collateral over the agricultural land and such pre-existing lender having priority over the lenders providing financing for the AgriPV Project under the Guj Agri Credit Act as discussed in paragraph 4.4.6 above.

Similarly, banks typically puts a requirement for obtaining change in land use from agricultural to non-agricultural in relation to financing of solar power projects. Such requirement is due to the enforcement issues involved with respect to agricultural land under SARFAESI Act as discussed in paragraph 4.4.4 above. Further, by way of example, certain schemes such as PM-Kisan Scheme (please refer to paragraph 4.5.4(e) below) provides credit to low income farmers only and excludes farmers who paid income tax in last assessment year. Therefore, it remains untested whether banks will continue to extend agricultural loans due to farmers utilising land simultaneously for agriculture as well as solar power generation in absence of introduction of hybrid/ mixed use of agricultural land for AgriPV Projects as discussed in paragraph 3.2.3 above.

4.5.7 Continuation of benefits /incentives to farmers after setting up AgriPV Projects

Agriculture being a state subject, matters relating to agriculture are legislated and administered by the State Legislature. The GoI supports the agricultural sector through various centrally sponsored schemes. Under the centrally sponsored schemes funds are released to the state government who implements the schemes as per the guidelines. Some of such schemes are as follows:

- (a) Interest Subvention Scheme- In this scheme government provides short term crop loans of upto INR 300,000 to farmers at an effective interest rate of 4% per annum. Initially the crop loan is provided at 7% to farmers and additional 3% subvention is given on prompt repayment which brings down the effective rate of interest to 4%.
- (b) Pradhan Mantri Fasal Bima Yojana (National Agricultural Insurance Scheme)- Under this scheme the government provides insurance coverage and financial support to the farmers in the vent of failure of any of the notified crop as a result of natural calamities, pests and diseases. The scheme covers all farmers including sharecroppers, tenant farmers growing the notified crops in the notified areas are eligible for coverage. Farmers are to submit the requisite documentary evidence prevailing in the State as prescribed by the states.

- (c) Pradhan Mantri Kisan Maan Dhan Yojana- A pension scheme for small and marginal farmers falling in the age group of 18 to 40 years having cultivable land of up to 2 hectares as per the land records of the state. Under this scheme, the farmers would receive a minimum assured pension of INR 3,000 per month after attaining the age of 60 years and if the farmer dies, the spouse of the farmer shall be entitled to receive 50% of the pension as family pension.
- (d) Income Support Scheme (PM-Kisan Scheme)- Under this scheme an income support of INR 6,000 per year in three equal instalments is provided to all land holding farmer families. state government and the UT administration are to identify the eligible farmer families for support as per scheme guidelines. The fund will be transferred to the bank accounts of the beneficiaries. The scheme excludes the following categories of people from claiming benefits under the scheme: (i) all institutional land holders; (ii) farmer families who hold constitutional posts/ who paid income tax in last assessment year/professionals like doctors, lawyers, architects, engineers registered with professional bodies/all serving or retired officers and employees of Central/state government Ministries/Offices/Departments and its field units, central or state public sector enterprises and attached offices or autonomous institutions under government as well as regular employees of the local bodies.
- (e) Integrated Scheme on Agriculture Cooperation.
- (f) Integrated Scheme on Agricultural Marketing.
- (g) Rashtriya Krishi Vikas Yojana.
- (h) Paramparagat Krishi Vikas Yojana.

Some of the schemes supporting farmers operational in the state of Gujarat are:

- (a) AGR 2 (Farm Mechanization) scheme of farmers other than SC/ST.
- (b) Price Support Scheme- The Government of Gujarat recommends support price of various kharif and rabi crops grown during respective season to be marketed in next season based on cost of production worked out by state Agriculture Department in consultation with Scientist of Agriculture University and as decided in the committee meeting of Gujarat State Agriculture Prices Commission. Farmers of the state of Gujarat are eligible for availing the PSS. Under the PSS Scheme, farmers get benefit of the scheme by selling their produce at support price in APMC centers opened by Nodal procurement agency.
- (c) AGR-3 Distribution of Seeds of more production varieties / Hybrids varieties Seeds and fertilizer at subsidies etc. The scheme is only for the ST farmers.
- (d) Farmers Accidental Insurance Scheme, is an insurance scheme floated by the Government of Gujarat, to assist the successor of the registered farmer, all child (son/daughter) of the registered farmer and the husband/wife of the registered farmer in case of death or disability due to accident. To avail benefits of this scheme the deceased or permanently disabled person should be registered farmer (have individual or joint name land) or child of registered farmer (son or daughter) or the husband/ wife.
- (e) AGR 4 (Farm Mechanization) scheme for farmers of the state belonging to the SC category.

Some of the operational schemes in the state of Madhya Pradesh supporting farmers are:

- (a) Chief Minister Krishak Samridhi Yojana, an incentive scheme to cultivate wheat and rice by providing additional benefits besides the minimum support price.
- (b) Chief Minister Bhavantar Bhugtan Yojana, launched in 2017, with an aim is to help farmers get minimum support price.
- (c) Annapurna Yojna evam Surajdhara Yojana, a scheme to help scheduled castes and Tribes by way of support in agriculture through swapping unproductive seeds with productive ones, providing 75% subsidy on purchase of seeds on the cultivation standard set by the Government per hectare, and enhancing production based on improved seeds by supplying

high variety seeds at 75% subsidy for at least half an acre land that is not more than 10 km away from govt field and belongs to a person coming from scheduled caste/ scheduled tribe.

- (d) Mukhyamantri Khet Teerth Yojana, an all-encompassing awareness scheme for all the resident farmers of Madhya Pradesh. This scheme intends to introduce new techniques of agriculture, modern methods of fertilisation, better irrigation, etc. to farmers.
- (e) Mrda Pareekshan Aur Mrda Swasthya Patrak, scheme aimed at improving soil productivity and health.

As enumerated above, eligibility criteria for availing benefits including subsidies to farmers are determined by the respective state governments. Unless specific categorisation of farmers has been created by the state for availing any benefits, being a farmer in a particular state is the primary requirement for claiming any benefits including subsidies extended by the government. In view of the aforesaid, it appears that while there exist a classification of farmers for availing certain welfare schemes, such schemes are not framed to accommodate the AgriPV Projects. Therefore, welfare schemes may not cover farmers setting up the AgriPV Projects. In order to incentivise the farmers to participate in the AgriPV Projects, such farmers should be specifically covered in the welfare schemes. However, the benefits/ incentive may be regulated based on the size of the AgriPV Projects and other prevailing aspects depending on the nature and mode of implementation of the AgriPV Projects.

4.6 Research any legal basis or legal aspects for states to consider the introduction of a new type of land category recognizing AgriPV (apart from KUSUM component A, any experience in the state assuming construction permit for AgriPV projects as well as all benefits associated with farming on agricultural land.

- 4.6.1 Presently, only Kusum Scheme as mentioned in paragraph 3.1.9(b) above and SKY Scheme as mentioned in paragraph 3.1.11(b) above appears to be under implementation in the state of Gujarat. The Component A of the Kusum Scheme envisages 2 models for AgriPV Projects on the basis of feed-in tariff: (a) **Case 1:** farmer itself sets up the AgriPV Project in a land owned by it and undertakes solar power generation and farming simultaneously; (b) **Case 2:** farmer leases its agricultural land to a developer who then sets up the AgriPV Project. In case 2, leased land is simultaneously used for solar power generation by the developer and also for farming by the farmer.
- 4.6.2 In relation to the Kusum Scheme, Government of Gujarat has issued a Scheme for Decentralized / Ground/Stilt Mounted Grid Connected Solar or other Renewable Energy based Power Plants under Component A of Kusum Scheme (“**Gujarat Kusum Component A Scheme**”) through its government resolution dated 11 December 2020. The Gujarat Kusum Component A Scheme provides for following key terms and conditions:
 - (a) **Eligibility:** AgriPV Project of 0.5 MW or less proposed to be established by small farmers based on techno commercial feasibility, and AgriPV Project of 0.5 MW to 2 MW proposed to be established by developers/ individual farmers/ group of farmers/ cooperatives/ panchayats/ Farmer Producer Organizations (FPO)/Water User associations.
 - (b) **Tariff:** Feed in tariff through competitive bidding conducted by GUVNL and adopted by GERC. Mechanism to determine tariff will be in accordance with the Gujarat Small Scale Solar Project Policy.
 - (c) **Term:** 25 years from commercial operation date.
 - (d) **Location:** Preferably within 5 km radius of the substation, in order to avoid cost of transmission line and reduce transmission losses. Change in land use required for usage of agricultural land for non-agricultural purpose.
 - (e) **Selection Process:** GEDA to invite expression of interest for selection of developers/ individual farmers/ group of farmers/ cooperatives/ panchayats/ Farmer Producer Organizations (FPO)/ Water User associations for development of decentralized renewable power plants.
 - (f) **Nodal Agency:** GEDA to facilitate and provide assistance in relation to activities related to AgriPV Project such as registration of projects, responding to queries and problems related to AgriPV Project, issuing commissioning certificates.

- (g) Payment Security: earnest money deposit of INR 100,000 in from of bank guarantee during the selection process and performance bank guarantee of INR 500,000 per MW within 30 days from date of issue of letter of award.
 - (h) Performance based incentive: MNRE to provide performance based incentive to GUVNL at the rate of INR. 0.40 per unit purchased or INR 660,000 per MW of AgriPV Project capacity installed, whichever is less, for a period of five years from the commercial operation date.
 - (i) Evacuation: AgriPV Project shall be allowed to inject power at interconnection point determined by GUVNL based on technical feasibility.
- 4.6.3 The state of Madhya Pradesh has not issued any government resolution for state wise adoption of Kusum Scheme like state of Gujarat. However, MPUVNL has issued expression of interest dated 27 August 2020 inviting application for setting up project under Component A of Kusum Scheme. Further, MPERC through its order dated 16 February 2021 in relation to Component A of Kusum Scheme, has determined the pre fixed levelized tariff of Rs. 3.07 / kWh under Component A of KUSUM Scheme for entire life of the project commissioned till 31 March 2024 which will be the ceiling tariff for the competitive bidding in the state of Madhya Pradesh.
- 4.6.4 Based on the aforesaid, it appears that the implementation of AgriPV Project under the Gujarat Kusum Component A Scheme depends primarily on nodal agencies such as GUVNL and MPUVNL who are incentivised to procure power from AgriPV Project for fulfilling its RPO as discussed in paragraph 3.1.5(b) above and to avail the performance based incentive from MNRE as mentioned in paragraph 4.6.2(h) above. In view of the aforesaid discussion, as an alternative approach to the Kusum Scheme, suitable guidelines in relation to following aspects may be issued by MNRE, Government of Gujarat and Government of Madhya Pradesh with respect to AgriPV Project:
- (a) setting up of solar projects by farmers on mixed/hybrid land use category of agricultural land as discussed in paragraph 4.2 above;
 - (b) tariff for AgriPV Projects should allow farmers to choose from existing feed-in tariff as discussed in paragraph 4.6.2 above and net metering arrangement as discussed in paragraph 3.1.5(a) (i) (B) above;
 - (c) similar to SKY scheme as mentioned in paragraph 3.1.11(b) above, suitable financial incentives towards cost of the AgriPV Project should be provided by union government, state government, NABARD. In this regard, a funding scheme like existing viability gap funding may be considered where incentives are provided from a corpus dedicated for AgriPV Projects;
 - (d) as discussed in paragraph 4.4.9 above, most famers often do not get easy access to bank loans due to limited land holding/ infrastructure constraints. Therefore, DISCOMs may directly provide loans to farmers towards cost of the AgriPV Project which can then be recovered directly through annual adjustments from the payments due to farmers upon commencement of commercial operations of the AgriPV Project and indirectly through incentives availed through RPO and performance based incentive as mentioned in paragraph 4.6.3 above;
 - (e) tariff payable to farmers should be determined with a view to ensure maximum participation in schemes related to AgriPV Projects;
 - (f) facilitate/establish network of: (i) suppliers of solar photovoltaic cells/modules/inverters; (ii) engineering, procurement and construction; and (iii) operation and maintenance service providers related to AgriPV Project, which provide these services at a pre-determined capped rate;
 - (g) in view of the barriers faced by farmers for availing financing as discussed in paragraph 4.4.9, consider removing the requirement for submission of earnest money deposit by farmers in relation to participation in selection process for AgriPV Projects and reduction of performance bank guarantee in relation to setting up of the AgriPV project by the selected farmers;
 - (h) state transmission companies (such as GETCO/ MPTRANSCO) to identify areas /clusters that may get covered for setting up of the AgriPV Projects including facilitation of the transmission infrastructure for the AgriPV Projects;
 - (i) exemption of income accruing from generation of electricity through AgriPV Projects / treatment of such income as agricultural income as discussed in paragraph 4.5.5 above.

4.7 Recommendations to accelerate construction permits for AgriPV projects in each state on agricultural land.

- 4.7.1 As mentioned in paragraphs 4.3.3 and 4.3.6 above, suitable amendments may be introduced in the Gujarat Single Window Act and MP Investment Act to ensure farmers have a separate platform under Investor Facilitation Portal in the state of Gujarat/ single window (clearance) system in the state of Madhya Pradesh and for processing construction approvals required for AgriPV Projects (including approval for mixed/ hybrid usage of land for AgriPV Projects). Such amendments should ensure that a proper and streamlined redressal mechanism is available to farmers in addition to speedy disposal of their approval applications. Additionally, kisan call centre(s) may be formed at suitable locations with dedicated personnel to assist farmers in understanding, filling and submitting applications under the Gujarat Single Window Act and MP Investment Act for obtaining approvals required for setting up the AgriPV Project.
- 4.7.2 Additionally, suitable amendments should be incorporated in the Gujarat Land Revenue Code and MP Land Revenue Code to provide for mixed/ hybrid usage of land for AgriPV Projects ensuring that no coercive/ adverse actions can be taken against a farmer under the Gujarat Land Revenue Code and MP Land Revenue Code in relation to conversion of agricultural land into mixed/ hybrid usage of land for AgriPV Projects as discussed in paragraph 3.2.3 above and paragraph 3.2.5 above, respectively.

Annexure 1

List of permissions and number of days for obtaining the permissions under the Gujarat Single Window Act

Sr. No.	Department Name	Application Name	Number of Days
1	Agriculture Department	Registration of co-operative societies	60
2	Energy & Petrochemical Dept.	Certification of electrical installation by Chief Electrical Inspector	30
3	CTD Department	Registration of profession tax	1
4	CTD Department	Registration of partnership firms	1
5	Gujarat Industrial Development Corporation	Land allotment	90
6	Gujarat Industrial Development Corporation	Building plan approval – GIDC	30
7	Gujarat Industrial Development Corporation	Water application	60
8	Gujarat Industrial Development Corporation	Drainage application	60
9	Labour & Employment Department	License for contractors under the Contract Labour Act	90
10	Labour & Employment Department	Registration of boilers under the Boilers Act, 1923	30
11	Labour & Employment Department	Registration of establishment under the Inter State Migrant Workmen Act, 1979	90
12	Labour & Employment Department	Registration of principal employer's establishment under the Contract Labour Act	90
13	Labour & Employment Department	Registration under the Building and Other Construction Workers Act, 1996	15
14	Labour & Employment Department	Renewal of License for contractors under the Contract Labour Act	90
15	Forest and Environment Department	Tree cutting permission	60
16	Forest and Environment Department	Tree transit permission	30
17	R&B Dept	Granting road cutting permissions	7
18	Urban Development & Urban Housing Department	Granting road cutting permissions	7
19	Urban Development & Urban Housing Department	NOC for fire from Fire Department	7
20	Urban Development & Urban Housing Department	Registration under the Gujarat Shops and Establishments (Regulation of Employment and Conditions of Service) Act, 2019	1
21	Urban Development & Urban Housing Department	Renewal under the Gujarat Shops and Establishments (Regulation of Employment and Conditions of Service) Act, 2019	1
22	Water Supply, Water Resources and SSNNL Dept.	Water connection (4 departments)	60
23	FDCA Department	Granting of drug manufacturing license	60
24	FDCA Department	Renewal of drug manufacturing license	60

Sr. No.	Department Name	Application Name	Number of Days
25	FDCA Department	Renewal of retail / Bulk drug license (Pharmacy)	30
26	FDCA Department	Retail / Wholesale drug sale license	30
27	Labour & Employment Department	Approval for boiler erector	30
28	Labour & Employment Department	Approval for boiler manufacturer	30
29	Labour & Employment Department	Factory plan approval under the Factories Act	90
30	Labour & Employment Department	Factory license under the Factories Act	90
31	Labour & Employment Department	Renewal of boiler erector	30
32	Labour & Employment Department	Renewal of boiler manufacturer	30
33	Labour & Employment Department	Renewal of Boilers under the Boilers Act, 1923	15
34	Labour & Employment Department	Renewal of license under the Factories Act	90
35	Revenue Department	Land application for NA under article 65	90
36	Revenue Department	Land permission under article-63	60
37	Revenue Department	Land permission under article-63AA	90
38	Revenue Department	Tree cutting permission	60
39	Revenue Department	Tree transit permission	30
40	Revenue Department	Permission for Bonafide Industrial Purpose 65B	90
41	Revenue Department	Tenancy Act article 43 - Conversion from new tenure to old tenure	90
42	Food, Civil Supplies & Consumer Affairs Department	Alteration in licence of manufacturer/ repairer/ dealer/ PCR	20
43	Food, Civil Supplies & Consumer Affairs Department	Application for shorter address	7
44	Food, Civil Supplies & Consumer Affairs Department	Certificate of registration under Package Commodity Rules (PCR), 2011	20
45	Food, Civil Supplies & Consumer Affairs Department	Licence as dealer of weight and measures under the Legal Metrology Act, 2009	20
46	Food, Civil Supplies & Consumer Affairs Department	Licence as manufacturer of weight and measures under the Legal Metrology Act, 2009	50
47	Food, Civil Supplies & Consumer Affairs Department	Licence as repairer of weight and measures under the Legal Metrology Act, 2009	50
48	Food, Civil Supplies & Consumer Affairs Department	Renewal for Dealer of weight and measures under the Legal Metrology Act, 2009	20
49	Food, Civil Supplies & Consumer Affairs Department	Renewal for manufacturer of weight and measures under the Legal Metrology Act, 2009	35
50	Food, Civil Supplies & Consumer Affairs Department	Renewal for repairer application of weight and measures under the Legal Metrology Act, 2009	35
51	Food, Civil Supplies & Consumer Affairs Department	Verification and reverification of weights and measures under the Legal Metrology Act, 2009	7 (inside office) 15 (outside office)
52	Energy & Petrochemical Department	Electricity connection	7(NoRoW) 15 (RoW)

Sr. No.	Department Name	Application Name	Number of Days
53	Gujarat Pollution Control Board	Consent to establish under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981	120
54	Gujarat Pollution Control Board	Consent to operate under the Water (Prevention and Control of Pollution) Act, 1974 and Air (Prevention and Control of Pollution) Act, 1981 and authorization under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016	120
55	Gujarat Pollution Control Board	Renewal of consent to operate	120
56	Urban Development & Urban Housing Department	Building Plan Approval – UDD	30
57	Urban Development & Urban Housing Department	Professional tax registration	3
58	Urban Development & Urban Housing Department	New property registration	9
59	Panchayat and Rural Housing	Professional tax registration	45
60	Panchayat and Rural Housing	New property registration	30

Annexure 2

List of permissions under the MP Investment Act

Sr. No.	Department Name	Application Name
Pre-Establishment Services		
1	Department of Environment (MP Pollution Control Board)	<ul style="list-style-type: none"> Consent to Establish (under Water Act, 1974 and Air Act, 1981) Consent to Operate (Under Water Act, 1974 and Air Act, 1981) Authorization for Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016
2	Department of Industry Policy and Investment Promotion	<ul style="list-style-type: none"> Building plan approved by AKVN Water connection by AKVN
3	Urban Development and Housing Department	NOC from Fire Department
4	Energy Department	Energy Connection (HT)
Pre-Operation Services		
5	Food, Civil Supplies and Consumer protection Department	License as Manufacturers of Weights and Measures
6	Department of Environment (MP Pollution Control Board)	<ul style="list-style-type: none"> Consent to Operate (Under Water Act, 1974 and Air Act, 1981) Authorization under E-Waste (Management) Rules, 2016 Authorisation under Solid Waste Management Rules, 2016

Sr. No.	Department Name	Application Name
7	Labour Department	<ul style="list-style-type: none"> • Factories plan approval under Factories Act • Factory license under the Factories Act • Permission for engaging contract labour by the contractor under the provisions of Contract Labour Act– (licensing of contractor) • Registration of Principal Employer Establishment under the Inter–State Migrant Workers Act, 1979 • Registration of Establishment under the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 • Registration of Principal Employer Establishment under the Contract Labour Act • Registration of shops and commercial establishments under the Madhya Pradesh Shops and Establishments Act, 1958
8	Department of Industry Policy and Investment Promotion	<ul style="list-style-type: none"> • Registration under the Boilers Act, 1923 • Transfer of boiler under the Boilers Act, 1923 • Manufacturing of boilers under the Boilers Act, 1923 • Registration and renewal under the Boilers Act, 1923 to work as manufacturer/repairer/ erector

Annexure 3

Conditions listed under section 115BAB of the IT Act to avail of the concessional tax rate of 15%

1. The company has been set up and registered on or after 1 October 2019 and has commenced manufacturing on or before 31 March 2023. Such a company should:
 - 1.1 Not be formed by the splitting up and reconstruction of a business already in existence except in case of a business re-established under section 33B.
 - 1.2 Does not use any plant or machinery previously used for any purpose. However, the company can use plant and machinery used outside India and used in India for the first time. Also, the company can use old plant and machinery, the value of which does not exceed 20% of the total value of the plant and machinery used by the company.
 - 1.3 Does not use a building previously used as a hotel or a convention centre. 'Hotel' means a hotel of two-star, three-star or four-star category as classified by the Central Government. 'Convention centre' means a building of a prescribed area comprising of convention halls to be used for the purpose of holding conferences and seminars, being of such size and number and having such other facilities and amenities, as may be prescribed.
2. The company should be engaged in the business of manufacture or production of any article or thing, and research in relation to such article or thing. The company can also be engaged in the distribution of such article or thing manufactured or produced by them.
3. The total income of the company should be calculated without claiming tax exemptions and incentives:
 - 3.1 Deduction under section 10AA for units in Special Economic Zone;
 - 3.2 Deduction for additional depreciation under section 32 and investment allowance under section 32AD towards new plant and machinery made in notified backward areas in the states of Andhra Pradesh, Bihar, Telangana, and West Bengal;
 - 3.3 Deduction under section 33AB for tea, coffee and rubber manufacturing companies;
 - 3.4 Deduction towards deposits made towards site restoration fund under section 33ABA by companies engaged in extraction or production of petroleum or natural gas or both in India;
 - 3.5 Deduction for expenditure made for scientific research under section 35;
 - 3.6 Deduction for the capital expenditure incurred by any specified business under section 35AD;

- 3.7 Deduction for the expenditure incurred on an agriculture extension project under section 35CCC or on skill development project under section 35CCD;
- 3.8 Deduction under Chapter VI-A, except deduction under section 80JJAA and 80M; and
- 3.9 Set-off of any loss carried forward from earlier years if such losses were incurred in respect of the aforementioned deductions.

We trust this Memorandum addresses your concerns adequately. We would be happy to address any further queries you may have in this respect.

Please note that we are qualified to opine on Indian laws and regulations alone. This Memorandum is limited to the areas specified in the paragraphs above from an Indian law perspective. It only addresses the issues related to the Queries, excluding any technical and financial analysis thereto and does not address any other issues specific to the business of AgriPV Projects.

We have relied on the relevant provisions of the Indian laws, and the regulations thereunder as available in public domain, and the judicial and administrative interpretations thereof, for the time being in force and as they stand on the date hereof. These are subject to change or modification by subsequent legislative, regulatory, administrative or judicial decisions.

Any change in the laws of India, as they stand today may have a significant bearing on this Memorandum. We do not undertake to update or modify this Memorandum after the date hereof.

This Memorandum may not be relied upon, copied, circulated or quoted by any person other than the recipient or IGEF/ GIZ or its employees or authorised delegates and preferred advisers, nor is it to be quoted or referred to in any public document or filed with any government authority, agency or other official body without the prior written permission of Khaitan & Co LLP.

Yours faithfully

Khaitan & Co

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Legal assessment of AgriPV in Maharashtra and Karnataka

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List of Abbreviations

Abbreviation	Meaning
AAI	Airport Authority of India
AgriPV	Agriphotovoltaics
BOCW Act	Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996
CERC	Central Electricity Regulatory Commission
Cess Act	Building and Other Construction Workers' Welfare Cess Act, 1996
CLRA Act	Contract Labour (Regulation and Abolition) Act, 1970
COP 24	2018 United Nations Climate Change Conference held in Katowice, Poland
COP 26	2021 United Nations Climate Change Conference held in Glasgow, Scotland
CPCB	Central Pollution Control Board
DISCOM	Distribution Company
EHV line	Extra High Voltage line
Electricity Act	The Electricity Act, 2003
ESCOM	Electricity Supply Companies
FDI	Foreign Direct Investment
GCRT	Grid Connected Rooftop System
GoI	Government of India
GoM	Government of Maharashtra
GoK	Government of Karnataka
IGEF-SO	Indo German Energy Forum, Support Office
INR	Indian Rupee
ISTS	Inter-State Transmission System
Ka	Karnataka
KERC	Karnataka Electricity Regulatory Commission
KPTCL	Karnataka Power Transmission Corporation Limited
KREDL	Karnataka Renewable Energy Development Limited
KSP	Karnataka Solar Policy 2014-2021 (as amended)
KSPCB	Karnataka State Pollution Control Board
Maha	Maharashtra
MAITRI	Maharashtra Industry, Trade and Investment Facilitation Cell
MEDA/Mahaurja	Maharashtra Energy Development Authority
MERC	Maharashtra Energy Regulatory Commission
MIDC	Maharashtra Industrial Development Corporation
MLRC	Maharashtra Land Revenue Code, 1966
MNRE	Ministry of New and Renewable Energy
MPCB	Maharashtra Pollution Control Board
MSEDCL	Maharashtra State Electricity Distribution Company Limited.
MSETCL	Maharashtra State Electricity Transmission Company.

MW	Megawatt
NOC	No-objection Certificate
NGO	Non-Governmental Organization
PACS	Primary Agricultural Credit Societies
PE	Private Equity
PM-KUSUM	Pradhan Mantri Kisan Urja Suraksha evem Utthan Mahabhiyan Scheme
PSU	Public Sector Undertakings
PV	Photovoltaic
RE	Renewable Energy
REC	Renewable Energy Certificates
R&D	Research and Development
SARFAESI Act	Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002
SERC	State Electricity Regulatory Commissions
SHG	Self-Help Groups
TRANSCO	Transmission Company
TSTRANSCO	Transmission Corporation of Telangana Limited
UEGP	Unconventional Energy Generation Policy, 2020

A. Background

1. Indo German Energy Forum (“IGEF-SO”) was established in April 2006 by the German Chancellor and the then Prime Minister of India inter alia to initiate strategic cooperation projects between German and the Indian government. It was set up with an objective to enhance and deepen the strategic political dialogue about the ongoing energy transition in both the countries.
2. The co-location of agriculture and solar photovoltaics plant is known as agriphotovoltaics, which has been launched in Japan and other countries, including India which has few pilot projects.
3. IGEF-SO is desirous of conducting a study on setting up of private sector commercial agriphotovoltaics projects from 1 to 10 MW (“AgriPV”) in the Indian states of Maharashtra and Karnataka and has sought from us, a concept note (“Concept Note”) on the queries listed in Section B, in this regard.

B. Scope of this Concept Note

In light of the above background, IGEF-SO wishes to obtain advice on the following queries:

1. List the legal requirements of permits/ licenses to establish a multi MW (1 to 10 MW) size solar project in Maharashtra and Karnataka on agricultural land.
2. List the barriers for an AgriPV project to be installed on agricultural land for additional large-scale solar generation, co-located with agriculture. Analyse the possibility for a new, commercial or hybrid category for an AgriPV project, so that power generated from it may either be used by farmer himself or sold through government utility, through Power Purchase Agreement.
3. List potential practices or avenues to obtain a construction permit on agricultural land under present legal framework and authorities to be contacted. The possible avenues/offices of redressal for obtaining permit/ permission for an AgriPV project in each state.
4. Does legislation in place permit farmers to take credit against agricultural land as collateral? If yes, is it actually happening? Any barriers that the farmers face? Are banks able to seize the collateral in case of default?
5. Financial implications for the solar project developer / owner as well as for the farmer. Please also highlight any tax implication on farmer/developer for establishing AgriPV power plant on the land of farmer. Whether developer and/or farmer may continue to have access to bank loans for their respective businesses i.e. AgriPV solar farms and agriculture respectively. Whether benefits/subsidies/minimum support price for farming may continue, even if agricultural land is also used for AgriPV power plant?
6. Research any legal basis or legal aspects for states to consider the introduction of a new type of land category recognizing AgriPV (apart from KUSUM component A) - any experience in the state assuring construction permit for AgriPV projects as well as all benefits associated with farming on agricultural land).
7. Recommendations to accelerate construction permits for AgriPV projects in each state on agricultural land.

C. Detailed Analysis

We have provided below our analysis and response to each query separately.

Query No. 1

1. List the legal requirements of permits/ licenses to establish a multi MW (1 to 10 MW) size solar project in Maharashtra and Karnataka on agricultural land.

1.1 Introduction

- a. The solar energy sector in India has witnessed rapid growth. Recently at the 26th United Nations Climate Change Conference in Glasgow (COP 26), an Indian delegate stated that the solar energy capacity of India stands increased by 17 times in the last seven years, bringing it to 45 GW of installed capacity.
- b. India has set a target of 175 GW of electricity through non-conventional energy sources by 2022, out of which 100 GW will be generated from solar energy. Given the ambitious target, commitment of net zero by 2070 and increasing global warming, industrialization, urbanisation, and pollution, the Indian government has taken and continues to take various initiatives for promotion and development of solar power projects.
- c. The Electricity Act, 2003 (“**Electricity Act**”) was enacted *inter alia* to consolidate the laws relating to generation, transmission, distribution, trading and use of electricity and generally for taking measures conducive to development of electricity industry. It seeks to promote co-generation and generation of electricity from renewable sources of energy.
- d. Accordingly, with the main objective of promotion of solar energy, respective State Governments in India formulate and issue Solar Policies from time to time, for a specific period. The Solar Policies lay down provisions applicable to solar plant that are set up in the concerned state, during the operative period of the respective solar policy. Such Solar Policies shall also be governed by applicable laws, including orders issued by Central/State Electricity Regulatory Commissions from time to time. At present, most of the solar policies are almost similar and provide for solar projects to be set up on private land, agricultural land, revenue land, government land, roof tops, etc.
- e. Policy makers tend to deliberate often about the huge requirement of land parcels for solar projects and how to find ways to minimise such requirement. However, till date there does not seem to be a convincing alternative for land or minimise the usage of land.
- f. In recent years, AgriPV projects are becoming popular, particularly from the point of view of minimum utilisation of agricultural land.
- g. Currently, there are no specific policies about setting up AgriPV projects and therefore to establish an AgriPV, similar permits and approvals will be required which generally are required to establish a conventional solar project.
- h. Based on the above premises, we have provided below:
 - the key provisions of the Solar Policy in Maharashtra and Karnataka, which will give an overview of the setting up of solar plants in these states (*para 1.2 and para 1.3*);
 - our views on land legislations governing change of land use in Maharashtra and Karnataka (*para 1.4*); and
 - a table containing list of keys consents and approvals that are typically required to be obtained, if applicable, by a solar power developer in Maharashtra and Karnataka, before commencement of construction as well as during and post operations phase. (*para 1.5*)

1.2 Solar Policy in Maharashtra

The Government of Maharashtra (GoM) issued the Unconventional Energy Generation Policy, 2020 (“UEGP”) dated December 31, 2020. The UEGP lays down certain provisions applicable to solar plants that are set up in the state of Maharashtra from December 31, 2020, until March 31, 2025. The key provisions of the UEGP are as follows

(BTG Note: Please note the UEGP as notified by GoM is available in only vernacular language (that is, Marathi) officially on the website of Maharashtra Energy Development Authority. We have got this document translated and have listed below the salient features of the UEGP as are apparent on the plain reading of the provisions of the translated version of the UEGP):

- a. **Nodal Authority:** All solar projects have to be registered with the Maharashtra Energy Development Authority (MEDA) and MEDA (also known as Mahaurja) is the steering agency for implementation of UEGP.
- b. **Single window web system:** A single window web system will be developed by MEDA, which will facilitate automatic registration, once project owner uploads the prescribed document. The project owner has to assume full responsibility for the accuracy and statutory compliance of all submitted documents, by way of a self-declaration.
- c. **Appointment of Assistance Officer:** MEDA will appoint Assistance Officer with respect to projects worth more than Rs. 1500 crores, for assisting project owners in obtaining approval, without any hindrance. Such officer will also coordinate with the concerned agencies regarding the problems faced by the government agencies in setting up the project.
- d. **Meetings with Project Owners:** MEDA will meet with registered project owners at least once in three months or more, to assist in project implementation. The government will take feedback from the project owners, where necessary and send recommendations for their suitability, in accordance with the UEGP.
- e. **Encouragement to non-conventional power projects:** All existing non-conventional energy projects will be encouraged to increase their generating capacity. This can be achieved by either installing new equipment in the same source in such projects or by increasing efficiency or by hybridizing it with other unconventional sources.
- f. **Minimum capacity:** The minimum capacity of a power generation project from solar energy shall be 1 MW.
- g. **NOC from Department of Geology and Mining:** Under this policy, if the solar power generation project is to be set up in the area / district where minerals are found, it will be necessary to submit a no-objection certificate from the Department of Geology and Mining.
- h. **Period of PPA and Open Access:** The period of power purchase agreement for solar power generation projects under shall be subject to the rules prescribed by the Maharashtra Electricity Regulatory Commission (MERC). In order to make the project financially viable, the period of open access will at least ten (10) years and this period will be finally decided by the MERC.
- i. **Mandatory Registration:** Registration of solar power projects to be connected with state transmission utilities and interstate transmission initiatives (Central Transmission Utility / ISTS) to be established in the state, will be mandatory.
- j. **Agricultural Schemes:** One of the objectives under the UEGP is to set up the following agricultural schemes in the state for the next five years,
 - i. solar agricultural pumps,
 - ii. rooftop transmission / hybrid solar power plants,
 - iii. solar pumps for water supply, rural electrification,
 - iv. solar based plants for cooking,
 - v. decentralized micro transmission projects,
 - vi. cold storage based on solar energy. (Beneficiary of such scheme include farmers group, farmer producer organizations, self-help groups, individual farmers)MEDA will grant technical approval for such projects and technical specifications and guidelines as per applicable law will govern such schemes.
- g. UEGP also specifically allows acquisition of land from private landowners on lease or purchase by Mahanirmiti (also known as Mahagenco, a power generating company), Mahavitaran (DISCOM) or MEDA.

h. Categories of Project: There are different category of solar power generation recognized under UEGP, few are as under:

S.No.	Category	Key Provision
1.	To develop power generation projects from solar energy	<ul style="list-style-type: none"> Minimum capacity of power generation project shall be 1 MW. Projects will be awarded to power distribution/generation companies through competitive biddings to meet their renewable energy targets or for open access/captive use within/outside the state or third party sale of power. Co-operative as well as private sugar factories, yarn mills, MIDC and other industries can set up solar energy projects on their remaining land, parking roads as well as roofs, in compliance with prevailing rules, regulations and regulations.
2.	To develop solar power generation projects, attached to Farmer Producer Organization, Primary Agricultural Credit Societies (PACS), Self-Help Groups (SHG)	<ul style="list-style-type: none"> Total capacity targeted is 250 MW in the next 5 years. Project land will be owned by Farmers Co-operative Society, Farmer Producer Organization, Primary Agricultural Credit Societies (PACS) and/or Self-Help Groups. Cost per MW will be fixed by Mahaurja. Eligible project developers can participate in this scheme by raising the required share capital, mortgaging the land of the project or by private investment. The electricity will be purchased by Maharashtra State Electricity Distribution Company Limited (MSEDCL). This scheme also mentions that solar project can be set up on farm land, wherein the solar module must be erected 4 metres from the ground and all safety requirement must be complied with. The UEGP mentions that the space under the structure can be used for other purposes, including grazing, goat/sheep rearing, storage, cold storage, etc. Procedure for implementation of this scheme will be decided by Department of Energy.
3.	Grid connected rooftop solar project	<ul style="list-style-type: none"> Projects under the Central Government's Grid Connected Rooftop System (GCRT) programme and self-financed rooftop transmission attached solar projects, with a capacity of 2000 MW will be developed.
4.	Use of solar pumps for small water and tap water supply	<ul style="list-style-type: none"> This category is with respect to solar pumps to be used for public supply of water/ drinking water to rural and remote areas, which do not have electricity supply. Installation of solar pumps will be done as per the prescribed technical specifications and standards given by Ministry of New and Renewable Energy (MNRE).
5.	Implementation of urban and rural water supply schemes in the state on solar energy	<ul style="list-style-type: none"> These projects will be for development of urban and rural water supply, for which Department of Energy will prescribe detailed procedure.

S.No.	Category	Key Provision
6.	Develop energy storage projects based on solar/ wind energy based pilot principle	<ul style="list-style-type: none"> Government has set a target of 50 MW capacity of energy storage capacity over the next five years. Of this, 20 MW capacity projects will be developed by MEDA and the remaining 30 MW capacity projects will be developed by private developers over a period of five years. Before commencement of any such project, the feasibility of the project will be checked by MSEDCL. The electricity distribution companies will take the electricity from the storage system at the time of peak load demand and then the electricity distribution company will pay the electricity bill to the power / private developer at the rate fixed by the Maharashtra Electricity Regulatory Commission.
7.	Establishment of e-vehicle charging station based on solar energy	<ul style="list-style-type: none"> A target of 50 MW capacity has been set for the next five years. The space required for such project will belong to the project founder/investor. The procedure for implementation will be provided by Department of Energy .
8.	Establishment of solar/ wind solar-hybrid transmission attached power projects	<ul style="list-style-type: none"> A target of 50 MW capacity has been set for the next five years. Mahaurja will determine the working procedure in this regard and submit a proposal to MSEDCL and the government and get proper approval All electricity generated from this project will be discharged into the electrical system of MSEDCL at market discovered rate.

1.3 Solar Policy in Karnataka

- 1.3.1 The Government of Karnataka (GoK) had issued the Karnataka Solar Policy 2014-2021 vide Notification bearing no. EN 21 VSC 2014 dated May 22, 2014 which was amended thrice vide Notification dated January 12, 2017; November 14, 2018 and September 20, 2019. The Karnataka Solar Policy (as amended) (hereinafter referred to as “KSP”) lays down certain provisions applicable to solar plants that are set up in the state of Karnataka, within the operative period from 2014 until 2021 or till such time any changes are made by GoK.
- 1.3.2 Recently on October 13, 2021, the GoK had circulated the Draft Renewable Energy Policy 2021-2026 (“Draft Policy”) for public comments and until the Draft Policy is finalized and notified by the GoK, KSP will be applicable for all solar plants that are set up in the state of Karnataka. In view of this, we have set out below some of the key provisions of the KSP:
- Project Approval:** Based on recommendation of Karnataka Renewable Energy Development Limited (KREDL), GoK shall issue order for project approval.
 - Nodal Agency:** KREDL is the nodal agency for facilitating and overseeing the implementation of KSP, including issuance of facilitation letters from Deputy Commissioners, Karnataka Power Transmission Corporation Limited (KPTCL), etc. and also invite tenders to allot projects for procurement of energy by Electricity Supply Companies (ESCOMs).
 - Objective:** One of the objectives of the KSP is to establish a “Solar energy center of excellence and incubation center” at State level for promoting innovation in technology, skill development, and Research & Development.
 - Categories of Project:** There are different category of solar power generation recognized under KSP, which are as under:

S.No.	Category	Key Provision	Project Capacity (Solar PV)	Administrative Body
Grid Connected Projects				
1.	Projects selected based on competitive bidding process (more than 3 MWp)	Projects will be selected based on competitive bidding process on Karnataka Electricity Regulatory Commission (KERC) determined benchmark tariff, on need basis.	Minimum capacity: 3 MW Maximum capacity shall be determined by GoK from time to time. Karnataka	KREDL
2.	Projects under Renewable Energy Certificates (REC) Mechanism	These projects will be eligible for policy benefits as allowed under guidelines issued by Central Electricity Regulatory Commission (CERC) and/or KERC. Under this mechanism, generators can sell electricity to ESCOMs at average pooled purchase cost, which is determined by KERC.	Minimum capacity: 1 MW Maximum capacity shall be based on transmission evacuation capacity.	ESCOMs and KPTCL.
3.	Projects under Captive/ Group Captive Generation	These projects consume power for captive use and are required to comply with provisions of Electricity Act read with its Rules (as amended) and orders issued by KERC from time to time. The project developer is allowed to avail RECs in compliance with KERC/ CERC regulations.	Minimum capacity: No limit Maximum capacity shall be based on transmission evacuation capacity.	ESCOM and KPTCL.
4.	Projects under Independent Power Producer	These power plants are those which sell power to third party. Such projects are not eligible for availing RECs.	Minimum capacity: 1 MW Maximum capacity shall be based on transmission evacuation capacity.	ESCOM and KPTCL.
5.	Projects under Bundled Power	These projects are set up by Central/ Karnataka State owned Public Sector Undertakings (PSUs) and Power Exchanges initiated by Government or PSUs for providing solar power bundled with thermal/hydel power from outside the State at government approved rates.	Based on bundled tariff as agreed with power purchaser.	High Level Project Approval Committee/ ESCOM.
6.	Grid connected solar rooftop projects and net metering	These grid connected solar rooftop projects are set up on public buildings, domestic, commercial and industrial establishments through net metering and gross metering methods, based on tariff orders issued by KERC from time to time.	Maximum capacity shall be as per KERC regulations.	ESCOM
7.	Solar Off-Grid and Decentralized Distributed Generation	These are solar off-grids projects like solar street lights (through local bodies), roof top SPV systems with battery storage (through ESCOMs and NGO's), solar powered irrigation pumps and others in both rural and urban areas for the purpose of reducing dependency on grid.		

- Other initiatives taken up by GoK include development of solar parks, grid tied canal projects and grid connected “solar with other renewable hybrid projects”.
- The Application Fee, Facilitation Fee, Performance Guarantee Amount and Net Worth/MW, have been notified by GoK on 20 September, 2019 vide notification no. ENERGY/7/VSC/2019-JD-ENERGY SECRETARIAT.
- It may be pertinent to point out here that the KSP (as per the earlier notification dated May 22, 2014 bearing no. EN 21 VSC 2014), recognized a separate category of project namely, “projects to promote distributed generation by land owning farmers throughout the state”, wherein GoK had endeavoured to promote solar energy projects by land owning farmers, with a capacity of 1MWp to 3 MWp per land owning farmer in Karnataka for sale of power to ESCOM at KERC determined tariff. However, this category was deleted by GoK vide amendment made to the KSP on January 12, 2017 (notification no. EN 49 VSC 2016).

- e. **Evacuation facilities:** Developer is responsible for connecting generating station to nearest grid sub-station or inter-connection point with the grid. The generating plant sub-station is to be developed and maintained by power producer as per applicable laws.
- f. **Fiscal Incentives:** Tax concessions in respect of entry tax, stamp duty and registration charges shall be as per Karnataka Industrial Policy. Further, central excise duty and custom duty exemption shall be allowed to project developer.
- g. **Policy initiatives under consideration:** GoK is contemplating to initiate the following:
 - i. time bound permissions and vesting Deputy Commissioners with full power to approve purchase of agricultural land for development of solar projects;
 - ii. developers be allowed to commence project execution pending formal land conversion approval;
 - iii. creation of a separate dedicated cell in KREDL having revenue department officials; so as to ensure creation of government/private land banks for development of solar projects on lease basis including formulation of modalities, fees, etc.
 - iv. timebound clearance for evacuation approval from KPTCL and reduction of supervision charges by KPTCL/ESCOMs to 5%
 - v. support collaborative R&D efforts between premier institute and technology companies
 - vi. support the growth of local manufacturing sector for indigenous development of technologies and other ancillary components in the ecosystem.

1.3.3 Draft Renewable Energy Policy 2021-2026

As mentioned hereinabove, recently on October 13, 2021, the GoK had circulated the Draft Renewable Energy Policy 2021-2026 for public comments. The key provisions of this policy are as under:

- i. **Promotion of new projects:** The policy will also be applicable to new initiatives/pilot renewable projects established in the State of Karnataka. It provides that GoK will support new technologies, including concentrated solar power and other markets, on case to case basis depending upon feasibility. It will endeavour R&D activities for advancement of renewable energy in the state.
- ii. **Land related:**
 - Solar project developer will be responsible to acquire/lease the land required for project development.
 - Where permission to purchase agricultural land under Section 109 of the Karnataka Land Reforms Act, 1961 is required (inter alia purchase of agricultural land by non-agriculturist), the process of procurement and conversion of land shall be as per the State Industrial Policy and its amendments issued from time to time and as per the Karnataka Land Reforms (Amendment) Act, 2020 dated April 27, 2020 and its amendments from time to time.
 - Once the project is approved/issued NOC by Energy Department, Government of Karnataka, the land required for the project development is automatically considered as deemed conversion and the project developer will not require obtaining project approval (excluding applicable statutory approvals) from any other Government departments..

- The project developers can commence project execution on filing of application for conversion of agricultural land, along with payment of specified fees.
- iii. All RE projects are proposed to be treated as manufacturing industry and they are eligible for incentives and concessions, as applicable to manufacturing industry mentioned in the State Industrial Policy.
- iv. **Nodal Agency:** KREDL shall be the nodal agency for processing applications for project allocation. It will scrutinize the application and documents submitted by the applicant and recommend to Energy Department, Government of Karnataka for issuance of Government Order.
- v. **Promotion of KUSUM and other schemes:** GoK will promote solarization of existing grid connected irrigation pumps through feeder solarization i.e., connecting the solar project at Substation bus (subject to the evacuation feasibility), and/or as per the guidelines or prevailing schemes of the State Government/Central Government including PM-KUSUM or any other forthcoming schemes/programs. It will promote development of floating solar on existing reservoirs/dams of hydro stations or any other water bodies, including reservoirs and lakes.
- vi. **Requirements of project developer:** The net worth of the company shall be at least 30% of the total project cost. The project developer will have to obtain various statutory clearances required for the project development. KREDL shall facilitate project developer in obtaining the consents, clearances, and permits required for the solar projects, by providing letters of recommendation to the concerned authorities, as may be requested by the project developer.
- vii. **Utilisation of land:** The maximum area that can be utilized for Solar PV technology (with and without tracker) based project is 3.5 acres per MWac. Any additional land requirement beyond the maximum area is subject to evaluation by GoK on case to case basis, depending upon the topography of the location.
- viii. **Time is the essence:** In case the developer fails to commission the project within the stipulated period (2 years subject to approved extension for a maximum period of 2 years from the stipulated commissioning timeline), KREDL will recommend to GoK for cancellation of the Government Order and after cancellation of Government Order, the performance bank guarantee will be forfeited.

1.4 Land Legislations governing Change of Land Use

1.4.1 The legislations governing diversion/change of use of land in Maharashtra and Karnataka are as under:

Maharashtra	Karnataka
<p>a. Section 44A of Maharashtra Land Revenue Code, 1966 (MLRC) provides that no permission shall be required, if a person desires to convert any land held for the purpose of agriculture or held for a particular non-agricultural purpose, for bonafide industrial use (which includes power projects), subject to certain conditions as stipulated therein.</p> <p>b. Such land user has to mandatorily give intimation within thirty days of the date of which the change of user of land has commenced and furnish certain information in the prescribed form within the timeline to the Tahsildar and a copy of the collector.</p> <p>c. Section 44 of the MLRC provides that permission from the Collector will be required to be obtained for diversion of:</p> <ul style="list-style-type: none"> • non-agricultural land to any other non-agricultural purpose (and not agricultural purpose) and/or • agricultural land to non-agricultural purpose (other than bonafide industrial use which is provided for in Section 44 A). <p>d. Section 45 of the MLRC provides for penalty if any land held or assessed for one purpose is used for another purpose, in contravention of the provisions under MLRC.</p> <p>e. However, agricultural land holder is entitled to erect farm building, construct well or tanks or make any other improvements for better cultivation of the agricultural land or its more convenient use relating to agricultural purpose (Section 41 of MLRC)</p>	<p>a. In Karnataka, permission for conversion/usage of land is governed by Karnataka Land Revenue Act, 1964. In the recent times, there has been amendments to Karnataka Land Revenue Act, 1964 as well as Karnataka Land Reform Act, 1961 so as to simplify the process for purchase/conversion of agricultural lands in Karnataka by non-agriculturists and/or provide for deemed conversion with respect to solar projects.</p> <p>b. In terms of Section 95 of Karnataka Land Revenue Act, 1964 (as amended), if any agricultural land is diverted for the purpose of setting up a solar power generation plant in accordance with KSP and the project has been approved by competent authority, the permission applied for conversion of such land shall be deemed to have been granted for that purpose, so long as it is used for the purpose for which permission is granted and subject to payment of necessary conversion fines and fees.</p> <p>c. Further, Section 97 of Karnataka Land Revenue Act, 1964 provides that permission from the Deputy Commissioner will be required to be obtained for diversion of non-agricultural land to any other non-agricultural purpose (and not agricultural purpose).</p> <p>d. Section 95 and Section 97 of the Karnataka Land Revenue Act, 1964 provides for penalty if any land held or assessed for one purpose is used for another purpose, in contravention of the provisions under Karnataka Land Revenue Act, 1964.</p> <p>e. However, agricultural land holder is entitled to erect farm building, construct well or tanks or make any other improvements for better cultivation of the agricultural land or its more convenient use relating to agricultural purpose (Section 95 of Karnataka Land Revenue Act, 1964)</p>

1.4.2 Hence, currently the legislations are silent on co-existence of both agricultural and non-agricultural activities on the same land.

1.4.3 In the instant case, we are of the view that since agricultural activity shall continue on the said agricultural land (though along with the setting up of solar power project on the same agricultural land parcel), the basic use of agricultural land does not stand diverted and/or converted, but there will only be an additional activity on the agricultural land. Accordingly, in our view, it may not be considered as 'change of land use' and agricultural land status will continue. Therefore, farmer may not be required to convert land usage from agriculture to non-agriculture and/or pay conversion fee, but an intimation to the concerned authority may suffice.

- 1.4.4 However, since the law is silent on the same, we suggest a letter to be written to the Collector (for Maharashtra)/ Deputy Commissioner (for Karnataka) conveying the details of activities proposed to be carried out in the agricultural land and obtaining a clarification on whether any application for change in land use and/or payment of conversion fee would be required, so that in future concerned authorities do not impose penalty or issue show cause notice or take any legal action against the farmer and/or the solar project developer.
- 1.4.5 As per our discussions (on no name basis) with officials of MEDA and KREDL (Asst. General Manager – Solar Grid and Asst. General Manager – Solar Off Grid), they are of the view that there should not be a problem with both agricultural activities and solar power plant project being carried out in the same land parcel. However, they did not indicate on whether there is any requirement for filing application for change in land use and/or payment of conversion fines.

1.5 List of Approvals

As mentioned earlier, currently there are no specific policy on setting up of AgriPV project and hence, we are of the view that the approvals or permits required for setting up an AgriPV project will be governed by the terms of the Solar Policy and extant law applicable to setting up of solar power projects on agricultural land.

Accordingly, the table below sets out the keys consents and approvals that are typically required to be obtained, if applicable, by a solar power developer in Maharashtra and Karnataka, before commencement of construction as well as during and post operations phase.

S. N.	Consents and Approvals	Sanctioning Authority (Ka - Karnataka, Maha – Maharashtra)	Requirement
Consents and approvals are required before the construction phase			
1.	Letter of Award	Ka – KREDL Maha – MEDA/ MSEDCL	The successful bidder of project if selected based on competitive bidding process, will be awarded letter of award by the entity inviting bid. If project is of small capacity, approval will be granted on pre-determined tariffs for such projects.
2.	Power Purchase Agreement	Concerned Distribution Company (DISCOM)	Power Purchase Agreement will be entered between solar power developer and concerned DISCOM/ESCOM in the state.
3.	Administrative Approval for the Project	Ka - GoK in recommendation with KREDL. Maha – GoM in recommendation with MEDA.	Based on recommendation of the respective nodal authority, administrative approval of the project will be granted by way of an order.
4.	Approval for power evacuation arrangements and grid connectivity.	Ka – KPTCL Maha – MSETCL	Since, the developer is responsible for connecting the generating station to the nearest grid sub-station or inter-connection point with the grid. In this regard, application is required to be made to the concerned TRANSO for use of transmission system and once the application is accepted, a connection agreement is required to be executed with the said TRANSCO.
5.	Route Approval	Ka – KPTCL Maha – MSETCL	Route approval from the receiving sub-station to the proposed solar power project would be required.

S. N.	Consents and Approvals	Sanctioning Authority (Ka - Karnataka, Maha - Maharashtra)	Requirement
6.	Consent to Establish	<p>Ka - Karnataka State Pollution Control Board ("KSPCB")</p> <p>Maha - Maharashtra Pollution Control Board ("MPCB")</p>	<p>Based on the relative pollution index, the Central Pollution Control Board (CPCB) has classified industries into four categories - red, orange, green and white.</p> <p>Industries undertaking "solar power generation through solar photovoltaic cell plant of all capacities" are categorized under "white category", as per the directions dated March 7, 2016 bearing ref. no. B-29012/ESS(CPA)/2015-16 read with clarificatory letter dated January 18, 2017 bearing ref. no. B-29012/ESS/CPA/2016-17 issued by the CPCB.</p> <p>Industry categorized as "White" do not require a Consent to Establish under the provisions of Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, but an intimation to concerned state pollution board (KSPCB/MPCB) would suffice.</p> <p>Further, white category industries are exempted from obtaining authorization under Hazardous and Others Wastes (Management and Transboundary Movement) Rules, 2016 and such industries have to dispose hazardous and other wastes generated to the actual user, waste collector or operator of the disposal facility, in accordance with the CPCB guidelines. This is as per the notification dated March 1, 2019 issued by Ministry of Environment, Forest and Climate Change bearing ref. no. GSR 178(E).</p>
7.	Approval for construction of overhead transmission line, if any, for evacuation of power from the power station	<p>Ka - GoK (Energy Department)</p> <p>Maha - GoM (Energy Department)</p>	<p>As per Section 68 (1) of the Electricity Act, installation of overhead line requires prior approval of the appropriate government in accordance with the provisions of the sub-section (2) of Section 68 of the Electricity Act.</p> <p>As per sub-section (2) of the Section 68 of the Electricity Act, prior approval shall not be required in relation to (i) an electric line which has a nominal voltage not exceeding 11 KV and is used or intended to be used for supplying power to a single consumer or (ii) so much of an electric line as is or will be within the premises in the occupation or control of the person responsible for its installation or (iii) in such other cases, as maybe prescribed.</p> <p>Further, please note that an authorisation by the Energy Department, GoK/GoM under section 164 of the Electricity Act, authorising the right of way in respect of the overhead transmissions from power station to the receiving KPTCL/ MSETCL sub-station could be obtained for the Project.</p>

S. N.	Consents and Approvals	Sanctioning Authority (Ka - Karnataka, Maha – Maharashtra)	Requirement
8.	No-objection certificate	Gram Panchayat of the concerned village	Panchayats are a form of local self-government in India in which gram panchayats are the basic unit of administration at the village level. Under Section 66 of the Karnataka Panchayat Raj Act, 1993, any person who intends to construct or establish a factory or workplace by employing electrical/mechanical/steam/water power or install any machinery or manufacturing plant driven by any power in an area falling within the territorial limits of a village, is required to obtain an approval from the relevant gram panchayat.
9.	No-objection certificate if the power project is located near any defence establishment, if applicable	Ministry of Defence, GoI	If the power project is situated near any defence establishment, then no-objection certificate from Ministry of Defence, GoI would be required to be obtained.
10.	No-objection certificate for height clearance if the power project is situated within 20 kilometers or less from an aerodrome reference point, if applicable	Airports Authority of India, GoI (AAI)	A no-objection certificate for height clearance must be obtained from the AAI, if the power project falls within a radius of up to 20 kilometres from the 'aerodrome reference point' of civil or defence aerodromes (a designated geographical reference point in an airport). This requirement is set out in Rule 4 of the Ministry of Civil Aviation (Height Restrictions for Safeguarding of Aircraft Operations) Rules, 2015.
11.	Consent from Forest Department	Ka - Karnataka Forest Department Maha – Maharashtra Forest Department	Though the projects are intended to be established on agricultural land, however in the event, connecting overhead lines are passing through a forest area as notified under the Forest (Conservation) Act, 1980, then an application will have to be made to the forest department seeking permission for such right of way. This is as per Rule 6 of the Forest (Conservation) Rules, 2003 read with Section 2 of the Forest (Conservation) Act, 1980. Further, the respective State Government are also empowered to regulate the falling of trees on any forest land.
12.	Permission for use of ground water	Ka- Karnataka Ground Water Authority Maha- Maharashtra Water Resources Regulatory Authority	Any user of ground water desiring to drill or dig a well in the notified area for any purpose has to obtain prior permit before proceeding with any activity connected with such drilling or digging, in terms of provisions under Karnataka Ground water (Regulation and Control of Development and Management) Act, 2011 and Maharashtra Groundwater (Development and Management) Act, 2009 for Karnataka and Maharashtra respectively.
13.	No-objection certificate – National Monuments Authority	National Monuments Authority	In the event, project site is within 200 meters radius of protected area as declared under the Ancient Monuments and Archaeological Sites and Remains Act, 1958, then clearance of the National Monuments Authority would be required to be obtained.

S. N.	Consents and Approvals	Sanctioning Authority (Ka - Karnataka, Maha – Maharashtra)	Requirement
6. Consents and approvals are required during the construction phase			
14.	Approval for site and building plan (including clearance for fire safety standards and protection apparatus and system) and licensing and registration of power projects under the Factories Act, 1948	Ka - Chief Inspector of Factories, GoK Maha - Chief Inspector of Factories, GoM	<p>Under the Factories Act, 1948 prior approval must be obtained from the respective State Government or the designated Chief Inspector for the site where a factory is proposed to be established.</p> <p>A 'factory' is defined under the Factories Act, 1948 to include any premises including the precincts thereof where ten or more workers are working, or were working on any day of the preceding 12 months, and in any part of which a manufacturing process is being carried on with the aid of power, or is ordinarily so carried on. In case manufacturing process is being carried out without the aid of power, the number of persons who have to be employed for the premises to be considered as a factory is 20 or more. Further, 'manufacturing process' is defined to include the activities of generating, transforming or transmitting power.</p> <p>Moreover, prior registration and license is required for use of premises as factory or for carrying any manufacturing process in any factory or for factory plan layout approval under the Karnataka Factories Rules, 1969 and Maharashtra Factories Rules, 1963.</p> <p>Please note that in the event the Chief Inspector of Factories does not approve of the plans submitted on the ground that the solar power project is not a factory until it is commissioned, then during the construction period, approval under the BOCW Act (defined below) would have to be obtained.</p>

S. N.	Consents and Approvals	Sanctioning Authority (Ka - Karnataka, Maha – Maharashtra)	Requirement
15.	Registration under the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 (BOCW Act)	<p>Ka - Karnataka Building and Other Construction Workers Welfare Board, GoK.</p> <p>Maha – Maharashtra Building and Other Construction Workers Welfare Board, GoM.</p>	<p>The BOCW Act applies to establishments which employ (or has employed on any given day in the preceding 12 months) ten or more building workers in any building and construction work. The BOCW Act specifically excludes from its purview any establishment, which is a factory as defined under the Factories Act, 1948.</p> <p>As mentioned in the earlier row above, upon commissioning of the solar project, it is established that the Project shall be a 'factory' under the Factories Act, 1948. However, in the event during the construction phase, the Project does not fall under the definition of a 'factory', the BOCW Act would be applicable to the building workers undertaking construction activities for the project.</p> <p>Under section 7 of the BOCW Act, the establishment/developer is required to register the establishment to which the BOCW Act is applicable.</p> <p>Further, Building and Other Construction Workers' Welfare Cess Act, 1996 (Cess Act) was enacted to provide for the levy and collection of a cess on the cost of construction incurred by employers. In terms of the Cess Act, the owner of an establishment and a contractor engaged by the owner to carry out any building or construction activity are also concurrently liable to pay cess of prescribed amount on the total 'cost of construction'. There is always some confusion or controversy on the interpretation of 'cost of construction' for the purposes of calculation of applicable cess.</p>
16.	License for usage and storage of fuel oil storage tank, pressurized vessels, explosive and inflammable liquids, gases and chemicals under (a) Explosives Act, 1884 read with Explosives Rules, 2008 and Gas Cylinder Rules, 2004; and (b) Petroleum Act, 1934 read with Petroleum Rules, 2002, if applicable	Chief Controller of Explosives, GoI	Such approval would only be required in the event the project developer stores or brings fuel oil storage tank, pressurized vessels, explosives and inflammable liquids, gases and chemicals on the Project site. In such cases, the developer is required to obtain a license from Chief Controller of Explosives under the Explosives Act, 1884 read with Explosives Rules, 2008 and the Gas Cylinder Rules, 2004, and the Petroleum Act, 1934 read with the Petroleum Rules, 2002.

S. N.	Consents and Approvals	Sanctioning Authority (Ka - Karnataka, Maha – Maharashtra)	Requirement
17.	License and Registration for undertaking and/ or executing work at the power project under the Contract Labour (Regulation and Abolition) Act, 1970 (“CLRA Act”)	Ka - Registering Officer, GoK Maha - Registering Officer, GoM	<p>Under sections 7 and 12 of the CLRA Act, a certificate of registration and license have to be obtained by the principal employer and the contractor.</p> <p>The CLRA acts applies to every establishment in which twenty or more workmen are employed or were employed on any day of the preceding twelve months as contract labour and/ or applies to every contractor, who employs or who employed on any day of the preceding twelve months, twenty or more workmen.</p> <p>Establishment is defined to inter alia include any place where any industry, trade, business, manufacture or occupation is carried on.</p>
18.	Registration under the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 and the Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Rules, 1980	Registering Officer appointed by the GoK (for Ka) /GoM (for Maha) or the GoI, as applicable	<p>A certificate of registration must be obtained by the developer or contractor if the developer or contractor employs, or has employed five or more inter-state migrant workmen on any day of the preceding twelve months.</p> <p>Establishment is defined to inter alia include any place where any industry, trade, business, manufacture or occupation is carried on.</p>
19.	No-objection certificate (if applicable)	Ka - Karnataka State Fire and Emergency Services, GoK Maha – Maharashtra Fire and Emergency Services, GoM	<p>Owner or occupier of buildings of prescribed height (usually 15 metres for business/commercial buildings) have to furnish a certificate regarding compliance of fire prevention and life safety measures in his building. Since we understand that height of the solar panels will not be more than the prescribed height (usually 15 metres for business/commercial buildings), no-objection certificate will have to be obtained, in this regard.</p>
20.	Import export code for import of plant, machinery and equipment including spares under the Foreign Trade (Development and Regulation) Act, 1992 and the Foreign Trade Policy	Controller of Imports and Exports, GoI	<p>To import or export any equipment, the solar power producer must obtain an importer exporter code from the Ministry of Commerce and Industry, GoI, in accordance with the provisions of Foreign Trade (Development and Regulations) Act, 1992 in the event that any of the equipment, including spares, for the project is imported into India.</p>

S. N.	Consents and Approvals	Sanctioning Authority (Ka - Karnataka, Maha - Maharashtra)	Requirement
21.	Labour law Compliances	Concerned State/Local Authorities	<p>All statutory and labour related compliances have to be adhered to while setting up the AgriPV project, including registration under various labour laws (if applicable) like Employee's Provident Funds and Miscellaneous Provisions Act, 1952, Employees State Insurance Act, 1948, Shops and Establishment Act, etc.</p> <p>Please note that the Indian government is all set to amalgamate 29 existing labour laws into four distinct new labour codes, with the main objective of simplifying labour laws and the government's focus on "ease of doing business" in India.</p> <p>These (new) labour codes are grouped into four categories, namely, wages, social security, industrial relations and occupational safety, health and working conditions. With these labour codes coming into force, certain existing practices and methodologies will change, rules will be simplified and others removed, registrations will become mandatory but also simpler and penalties for non-compliances will increase.</p>
Consents and approvals are required after the construction phase			
22.	Consent to Operate	<p>Ka - Karnataka State Pollution Control Board ("KSPCB")</p> <p>Maha - Maharashtra Pollution Control Board ("MPCB")</p>	<p>Based on the relative pollution index, the CPCB has classified industries into four categories - red, orange, green and white.</p> <p>Industries undertaking "solar power generation through solar photovoltaic cell plant of all capacities" are categorized under "white category", as per the directions dated March 7, 2016 bearing ref. no. B-29012/ESS(CPA)/2015-16 read with clarificatory letter dated January 18, 2017 bearing ref. no. B-29012/ESS/CPA/2016-17 issued by the CPCB.</p> <p>Industry categorized as "White" do not require a Consent to Operate under the provisions of Water (Prevention and Control of Pollution) Act, 1974 and the Air (Prevention and Control of Pollution) Act, 1981, but an intimation to concerned state pollution board (KSPCB/MPCB) would suffice.</p>
23.	Approval of the design and specification of the electrical plant and equipment under the Electricity Act	<p>Ka - Chief Electrical Inspector, Energy Department, GoK</p> <p>Maha - Chief Electrical Inspector, Energy Department, GoM</p>	<p>Section 162 (1) of the Electricity Act and the Qualifications, Powers and Functions of Chief Electrical Inspector and Electrical Inspectors Rules, 2006, requires the Inspector to certify that any appliance or apparatus used for generation, transmission, transformation, conversion, distribution or use of energy meets the safety regulations prescribed under the Electricity Act. The approval of the Chief Electrical Inspector is necessary to certify the commissioning of a solar power project.</p>

S. N.	Consents and Approvals	Sanctioning Authority (Ka - Karnataka, Maha – Maharashtra)	Requirement
24.	Open Access Approval	Intra-state approval - Concerned DISCOM/ ESCOM in whose area of supply the consumer or generator is located. For open access involving inter-state open access - State Load Dispatch Center (SLDC) or State/ Central Transmission Utility, as may be applicable.	In terms of section 42 of the Electricity Act, electricity consumers by way of open access approval, have the right to procure power from the supplier of their choice, that is, other than the distribution licensee company who is authorized under the Electricity Act, to operate and maintain a distribution system for supplying electricity to the consumer in his area of supply. They can use the existing transmission and distribution infrastructure after paying appropriate charges determined by their respective State Electricity Regulatory Commissions.
25.	Completion/ Commissioning Certificate and Synchronization Approval	Relevant state distribution licensee	Prior to completion of synchronization of the entire Project with the grid system, the solar power developer is required to obtain certification for full contracted capacity from the competent authority, duly demonstrating the full commissioning of the contracted capacity. Commissioning/ completion certificate is usually granted by the concerned superintending engineer of the city circle of the distribution licensee, where the energy is fed.

With an objective to attract investment, employment and ease of doing business in the State, Maharashtra and Karnataka Government have launched Single Window Scheme by way of Maharashtra Industry, Trade and Investment Facilitation Cell (MAITRI) (<https://maitri.mahaonline.gov.in>) and Ebiz Karnataka/Karnataka Udyog Mitra (<https://ebiz.karnataka.gov.in/ebiz/>) respectively to facilitate grant of certain approval to industries.

In Karnataka, land related approvals or services, including application for land use conversion (apart from Ebiz Karnataka facility) can also be made online through Bhoomi Monitoring Cell, Revenue Department, GoK (<https://landrecords.karnataka.gov.in>).

Query No. 2

2. List the barriers for an AgriPV project to be installed on agricultural land for additional large-scale solar generation, co-located with agriculture. Analyse the possibility for a new, commercial or hybrid category for an AgriPV project, so that power generated from it may either be used by farmer himself or sold through government utility, through Power Purchase Agreement.

- 2.1 We understand that the main concern here is the co-location of agriculture with solar power project and not to replace agriculture. As mentioned in Query No. 1 above, the legislations are silent on co-existence of both agricultural and non-agricultural activities on the same agricultural land parcel.
- 2.2 The current legislations stipulates that agricultural land may be used for non-agricultural purposes, by getting it converted to non-agricultural use by designated authorities inter alia upon payment of conversion fine/tax. Further, it provides for deemed conversion of agricultural land for solar project, but is silent on when such agricultural land is not converted, but also used for solar power project, while continuing with agricultural activity.
- 2.3 In the instant case, we are of the view that since there is continuity of agricultural activity, along with the activity of solar power project on the same land agricultural parcel, the status of agricultural land does not stand diverted and/or converted, but there will only be an additional activity on the same agricultural land. Accordingly, in our view, it may not be considered as 'change of land use' and agricultural land status will continue. Therefore, a farmer may not be required to convert land usage from agriculture to non-agriculture and/or pay conversion fee, but an intimation to the concerned authority may suffice, which is generally a norm for deemed conversion in some states.
- 2.4 However, since the law is silent on the same, we suggest that before establishing an AgriPV project, a representation cum request for clarification letter is sent by:
 - a. an association like yours to development authorities like KREDL or Energy Department, GoK/ in Karnataka or MEDA or Energy Department, GoM in Maharashtra. This may be backed by other relevant stakeholders/associations/organization; and
 - b. the farmer/ solar power developer to the Deputy Commissioner (for Karnataka) / Collector (for Maharashtra)

conveying inter alia the details of activities proposed to be carried out in the agricultural land and obtaining a clarification on whether any application for change in land use and/or payment of conversion fee /tax / fine would be required, so that in future, concerned authorities do not impose penalty, issue show cause notice and/or initiate any legal action against the farmer and/or the solar project developer.

- 2.5 As per our discussions (on no name basis) with officials of KREDL (Asst. General Manager – Solar Grid and Asst. General Manager – Solar Off Grid), they are of the view that there should not be an issue with both agricultural activities and solar power plant project being carried out in the same land parcel.
- 2.6 Having said so, we are of the view that the following may act as barriers for an AgriPV project to be installed on agricultural land for additional large-scale solar generation, co-located with agriculture:
 - a. Since the legislations are currently silent on co-existence of both agricultural and non-agricultural activities on the same agricultural land and/or AgriPV projects are not (policywise) recognized/regulated, concerned officials may have different interpretation of extant laws on the status of land, including, levy of conversion fee while applying laws applicable for existing solar project to AgriPV projects;
 - b. Most of the conventional Indian crops like wheat, rice, maize, chickpeas, sugarcane, etc. require full sunlight and farmers are growing these for generations. Having solar panels over the crops will limit the sunlight and farmers will have lot of apprehensions in this regard.

To address this, farmers will have to choose (with support from concerned agencies like IGEF) such crops which need less sunlight but at the same time, help them in earning their livelihood. This would involve lot of detailed discussions, convincing, demonstrations and assurances to farmers along with an expectation of good return from sale of power/lease rent;

The apprehensions of farmer about land may be another roadblock. Land is a very sensitive and emotional asset for a farmer and they may not be mentally ready to adopt such a project and/or have a suspicious outlook for the same.

Hence, this will require continuous in person interactions, education, meetings and discussions to educate and make them aware of such a project. Pilot AgriPV projects can be installed in different places by leasing one acre of land, so as to instill confidence among farmers;

Due to absence of specific legislations on AgriPV project and it being a nascent concept, there may be confusion and/or delay in obtaining required approvals, credit facilities and/or implementation of such project.

The height of the solar panels would have to be considerably increased, so that agricultural and allied activities can continue below or beside it. This may lead to significant increase in the cost of solar project;

The grazing of animals under the panels may be a safety concern due to the risk of damage of equipment, electrocution of animals, etc. Further, there may be apprehension of damage to solar panels by animals;

- c. Due to the specific requirement of certain height of panels for AgriPV, the overall cost of the project will get increased and break even point in comparison to conventional solar project may be longer;
- d. Since cleaning of solar panels have to be carried out frequently and AgriPV project require solar panels to be installed in a way where there can be co-existence of agriculture and solar power generation, hence the maintenance cost of such panels as well as agricultural land would be higher. Further, the farmer would not be interested in bearing any cost or be responsible or possess any knowledge or take any initiative towards maintenance of solar project on his land;
- e. The technical feasibility of module cleaning, availability of ground water and elevation of solar panels to a certain height, will also needed to be thoroughly researched and practically tested;
- f. Community participation and support of relevant stakeholders (including government bodies), will be required to make this model successful;
- g. Since most farmer's livelihood depends on the agricultural produce and hence, if the AgriPV is not practically feasible (due to scarcity of sunlight leading to low generation or low yield in agricultural produce), this may become a serious problem especially when farmer's suicide is very common in India;
- h. It will need to be taken care that the AgriPV projects are not set up on/near common water bodies and/or grazing area, so as to cause any damage to it;
- i. There being no clarity including but not limited to tariff, returns, process etc., proper farmer friendly policies/ guidelines need to be promulgated to popularize AgriPV project;
- j. The farmer may be dissuaded to set up an AgriPV project, in view of the various approvals, permissions, sanctions that are required to be obtained for setting up an AgriPV project, which takes considerable time and involves bureaucratic hassles. Further, the single window clearance for certain approvals may not be familiar with farmer as it is an online platform.
- k. The power purchase agreement provides for specific timeline for scheduled commissioning of project and in the event of delay (which may be on account of non-receipt of approval, arrangement of finances, etc.), there may be financial and other consequences and risk;
- l. In the event, the farmer is required to fund and finance the AgriPV project, then it may lead to substantial debt. Further, the financial closure of AgriPV projects with banks and financial institutions may be dependent upon solar power developer obtaining required approvals from various agencies for implementation of the AgriPV project.
- m. Due to absence of specific legislations on AgriPV project, farmers may be forced to lease their land on unattractive/cheaper lease rent to private solar developer.

Query No. 3

3. List potential practices or avenues to obtain a construction permit on agricultural land under present legal framework and authorities to be contacted. The possible avenues/offices of redressal for obtaining permit/permission for an AgriPV project in each state.

3.1 In our response to Query No. 1, we have listed down the key approvals (if applicable) which may be required prior, during and post construction activity for setting up solar power projects (in absence of specific policy on AgriPV project).

The sanctioning authority for grant of such approval has also been provided therein. As is evident, different approvals from designated authorities (of different states) trigger upon various stages of construction activity.

3.2 As stated earlier, KREDL and MEDA are the nodal agencies responsible for registration of solar project as well as implementation of KSP and UEGP in Karnataka and Maharashtra respectively.

Whereas with respect to change in land use (if applicable), the sanctioning authorities are Deputy Commissioner and Collector of the relevant district for Karnataka and Maharashtra respectively.

3.3 In view of the above, the possible avenues/offices and/or of redressal for obtaining permit/permission for an AgriPV project in each state, may be as follows:

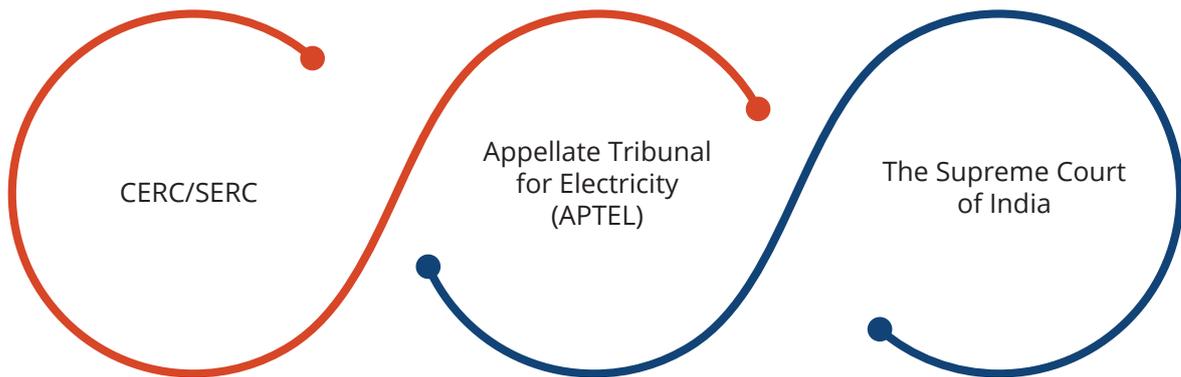
- i. The sanctioning authority (as per para 1.5 above) should be approached first for redressal in obtaining permits for AgriPV project, since they are the first designated authority for granting such approval;
- ii. The Energy Department of GoK and GoM for Karnataka and Maharashtra respectively may also be approached, since KREDL and MEDA refers any issues/clarification with regard to KSP and UEGP to the Energy Department of GoK and GoM respectively;
- iii. In the event, there are any issues and/or disputes which falls within the scope of Section 79 and Section 86 of the Electricity Act, then Central Electricity Regulatory Commission (under Section 79) or the State Electricity Regulatory Commission (under Section 86) can be approached.

The scope of functions of the said authorities are as under:

Functions	
Central Electricity Regulatory Commission (CERC)	State Electricity Regulatory Commission (SERC)
<ul style="list-style-type: none"> a. to regulate the tariff of generating companies owned or controlled by the Central Government; b. to regulate the tariff of generating companies other than those owned or controlled by the Central Government specified in clause (a), if such generating companies enter into or otherwise have a composite scheme for generation and sale of electricity in more than one State; c. to regulate the inter-State transmission of electricity; d. to determine tariff for inter-State transmission of electricity; e. to issue licences to persons to function as transmission licensee and electricity trader with respect to their inter-State operations; f. to adjudicate upon disputes involving generating companies or transmission licensee in regard to matters connected with clauses (a) to (d) above and to refer any dispute for arbitration; g. to levy fees for the purposes of this Act; h. to specify Grid Code having regard to Grid Standards; i. to specify and enforce the standards with respect to quality, continuity and reliability of service by licensees; j. to fix the trading margin in the inter-State trading of electricity, if considered, necessary; k. to discharge such other functions as may be assigned under this Act. 	<ul style="list-style-type: none"> a. determine the tariff for generation, supply, transmission and wheeling of electricity, wholesale, bulk or retail, as the case may be, within the State: b. Provided that where open access has been permitted to a category of consumers under section 42, the State Commission shall determine only the wheeling charges and surcharge thereon, if any, for the said category of consumers; c. regulate electricity purchase and procurement process of distribution licensees including the price at which electricity shall be procured from the generating companies or licensees or from other sources through agreements for purchase of power for distribution and supply within the State; d. facilitate intra-State transmission and wheeling of electricity; e. issue licences to persons seeking to act as transmission licensees, distribution licensees and electricity traders with respect to their operations within the State; f. promote cogeneration and generation of electricity from renewable sources of energy by providing suitable measures for connectivity with the grid and sale of electricity to any person, and also specify, for purchase of electricity from such sources, a percentage of the total consumption of electricity in the area of a distribution licensee; g. adjudicate upon the disputes between the licensees and generating companies and to refer any dispute for arbitration; h. levy fee for the purposes of this Act; i. specify State Grid Code consistent with the Grid Code specified under clause (h) of sub-section (1) of section 79; j. specify or enforce standards with respect to quality, continuity and reliability of service by licensees; k. fix the trading margin in the intra-State trading of electricity, if considered, necessary; l. discharge such other functions as may be assigned to it under this Act.

As is evident above, primarily CERC adjudicates upon inter-state disputes and SERC adjudicates upon intra-state disputes. The SERC for Karnataka and Maharashtra are Karnataka Electricity Regulatory Commission and Maharashtra Electricity Regulatory Commission respectively.

- iv. The appeal of any decision of CERC/SERC lies to the following authorities:



- v. Further, the High Court (High Court of Karnataka and High Court of Bombay for Karnataka and Maharashtra respectively) can be approached by way of a writ petition under Article 226 of the Constitution of India. In a court petition under the writ of mandamus, the petitioner requests the Court to direct a public authority to perform the legal duties which it has not, failed and/or refused to perform. The writ of mandamus is issued primarily to keep public authorities within their jurisdiction, while exercising public functions. There are several judicial precedents on the same.

In fact, we had also represented many clients for writ and other petitions. For instance, a writ petition for a client was filed for delay in grant of open access (wherein power generator can sell power to industrial or other customers directly) approval with respect to a solar power project in the state of Telangana. In the instant case, our client had applied for open access approval soon after commissioning of its solar plant. However, the Transmission Corporation of Telangana Limited (TSTRANSCO) failed to grant such approval for almost two years, without any explanation or notification of deficiency in the application of our client, whereas prescribed period to grant such approval was 30 (thirty) days.

In view of the same, a writ petition was filed before the High Court of Telangana. The High Court directed the concerned authority to consider the application and grant open access within 8 (eight) weeks. Our client was eventually granted long-term open access, within approximately three months of initiating the writ petition. No appeal has been filed by the authority against the said court order till date.

Ordinarily, the appeal of an order of the Single Bench of the High Court lies before the Division Bench of such High Court, post which the appeal from such order of the Division Bench of the High Court would lie before the Supreme Court of India.

Further, representation/request letters can also be sent to other relevant stakeholders, especially public officials having authority, for their support and intervention, including authorities/ministries at federal level.

Query No. 4

4. Does legislation in place permit farmers to take credit against agricultural land as collateral? If yes, is it actually happening? Any barriers that the farmers face? Are banks able to seize the collateral in case of default?

4.1 Whether legislation allow credit against agricultural land as collateral?

(a) We understand that there is no bar for farmers to take loans for agricultural purposes against agricultural land as collateral. In fact, there are certain legislations in place in Maharashtra and Karnataka, which expressly recognize mortgage of agricultural land, which are as under:

Maharashtra	Karnataka
<p>Maharashtra Provision of Facilities for Agricultural Credits by Bank Act, 1974</p> <ul style="list-style-type: none"> Maharashtra Provision of Facilities for Agricultural Credits by Bank Act, 1974 was enacted primarily to make better provision for the adequate supply of credit or increasing agricultural production and development in the State; and to remove any restrictions on alienations of certain agricultural lands, so that banks may provide credit on such agricultural lands. Section 3 of the said Act specifically recognizes and makes it lawful for an agriculturist to alienate (whether by way of creation of a charge or mortgage on such land, or any other interest) any land to the extent of his right therein, or any right, title and interest he may have in the land, in favour of a bank for the purpose of obtaining financial assistance from that bank. “Financial assistance” is defined to mean assistance granted by way of loans, advances, guarantee or otherwise for any agricultural purpose or for purchase of shares of any co-operative agricultural processing society or any co-operative society undertaking land development or improvement works including lift irrigation. <p><u>Maharashtra Land Revenue Code, 1966 (MLRC)</u></p> <p>MLRC provides for following classes of persons holding agricultural land:</p> <ol style="list-style-type: none"> Occupants-Class I includes those persons who hold unalienated land in perpetuity, without any restrictions on the right. Occupants-Class II includes those persons who hold unalienated land in perpetuity subject to restrictions on the right to transfer Government lessees <p>Section 36 of the MLRC also makes it lawful for Occupant-Class II to mortgage his property inter alia in favour of SBI, bank under section 2(d) of the Banking Companies (Acquisition and Transfer of Undertakings) Act, 1970 (which includes Bank of Maharashtra, Union Bank of India, Indian Overseas Bank, etc.) or the Maharashtra State Financial Corporation in consideration of a loan advanced to him.</p>	<p>Karnataka Land Reforms Act, 1961</p> <ul style="list-style-type: none"> Section 81 read with Section 80 of the Karnataka Land Reforms Act, 1961 allows mortgage of any agricultural land or interest therein in favour of a financial institution (as defined therein), which inter alia includes banking company as defined under Banking Regulation Act, 1949, SBI and its subsidiary bank, Agricultural Refinance and Development Corporation, Karnataka State Agro-Industries Corporation, Agricultural Finance Corporation Limited and/or any other State Government notified institution. Section 19, Section 21 and Section 61 also provides that landowner, tenant and registered occupant of agricultural land respectively, can take loan and mortgage or create a charge on his interest in the agricultural land inter alia in favour of financial institution for development of land or improvement of agricultural practices.

- (b) Agriculture and Renewable Energy are classified as a “priority sector” in terms of Reserve Bank of India (Priority Sector Lending – Targets and Classification) Directions, 2020 and banks are required to ensure that the loans extended under priority sector are for approved purposes as well as their end use is continuously monitored. Loans to farmer for installation of solar power plant under category A of PM KUSUM Scheme, has also been recognized under the said RBI Directions.
- (c) Based on our discussions (on no name basis) with bankers in Maharashtra and Karnataka (refer para 4.4 below), we understand that banks do accept agricultural land as collateral. However, in case of default, practically, banks do not take over agricultural land and/or sell it to recover their loans, as banks do in case of other mortgaged assets. The reason behind not taking over agricultural land is that the provisions of the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (“SARFAESI Act”) are not applicable on agricultural land (as explained in para 4.3 below).
- (d) Although the loan terms and scheme will differ from one bank to another (and one place to another), we have annexed few snapshot of bank schemes available on their websites, which provides for loan against mortgage of agricultural land to farmers at Annexure 1 hereto.
- (e) It may be pertinent to point out herein that India, primarily being an agrarian country, the Government has always been pro-farmer and farmers’ interests are of paramount importance. There are already various schemes in place to support farmers including initiatives, which help farmers in obtaining credit facilities. Further, considering difficulties faced by farmers, state level governments keep coming out with waiver of loans schemes also. One of such scheme is the Mahatma Jyotirao Phule Farmer Loan Waiver Scheme 2021, which provides for waiver upto INR 2 lakhs with respect to crop loans outstanding until September 30, 2019.

4.2 Barriers faced by farmer, if any

Difficulties faced by farmers, while availing agricultural loans:

- (a) Availing agricultural loans by farmers is not a very complicated process as most of the banks, particularly public sector banks, are encouraged to give agricultural loans. However, land being a very emotional and ancestral asset, farmers generally do not want to give their land as mortgage.
- (b) Due to heavy dependence of agriculture on rains and other seasonal aspects, farmers sometimes are not able to return their existing loans and then it becomes very difficult for them to take further loans, as land is already mortgaged with bank.
- (c) The farmer availing financial assistance from the bank ‘may’ be required to give a declaration that so long as such assistance continues to be outstanding, farmer will not lease that land (or interest therein), or create any tenancy rights thereon, or enter into an agreement of sale, without prior permission in writing of the bank. The banks may request for such declaration as has been provided under Maharashtra Provision Of Facilities for Agricultural Credits by Bank Act, 1974.
- (d) The farmer may be asked to produce and deposit original title deeds evidencing ownership of land (free from encumbrances) including, 7/12 extracts (mutation records), no dues certificate, valuation certificate, income certificate, etc. It may not be readily available with the farmer and if the farmer needs to obtain the same, then the process of obtaining from relevant government departments may be time consuming and involve bureaucratic hassles, especially if the concerned farmer is illiterate.
- (e) Banks may also insist for hypothecation of crops or deposit of fixed deposit receipts or income generated from agricultural and/or allied activity or any other sources, directly to the bank, towards loan repayment.

Difficulties farmers/developer may face for availing credit facilities for AgriPV project : -

- (a) In case of AgriPV project, banks may not ask to mortgage land, but instead ask for mortgage of project assets like panels, inverters, cells etc. including, lease hold rights (if land is taken on lease by the developer) and all future receivables.
- (b) The banks may ask for additional terms and conditions, for instance:
 - If project is project is being established by farmer himself, banks may ask for mortgage (by way of registered mortgage) of present owned land where project is to be established and land to be purchased (if any), in favour of the bank;

- Banks may seek for exclusive charge over Power Purchase Agreement entered with respect of the solar project.
 - As a pre-condition to disbursement of loan, banks may request for permission to be obtained for setting up solar project.
 - Tripartite agreement between bank, DISCOM and borrower for receipt of sale proceeds of power produced to escrow account maintained with the bank, may be executed.
- (c) Due to bar on enforcement of security interest with respect to agricultural land for financial institution under SARFAESI Act (as detailed in para 4.3 below), banks may not consider agricultural land at par with other assets, for mortgage and/or insist on additional terms and conditions (which may be more stringent) for grant of such loans.
- (d) Most farmers are very emotional and sensitive about their land, including being suspicious about the intent and purpose of bankers and loans. Hence, there may be lot of assurances and awareness required in this front, if land or land rights are to be mortgaged for the project.

4.3 Seize of collateral by Banks:

- (a) The Securitisation and Reconstruction of Financial Assets And Enforcement of Security Interest Act, 2002 (“SARFAESI Act”) was enacted inter alia to regulate securitization and provide for enforcement of security interest created on property rights. Due to the provisions of the SARFAESI Act, a secured creditor which inter alia includes Bank or Financial Institution (as defined therein) is entitled to enforce any security interest in its favour as per the provisions of the SARFAESI Act, without the intervention of court or tribunal.
- (b) However, SARFAESI Act is inapplicable and ineffectual, in so far as the security interest created on an agricultural land is concerned due to the following reasons:
- Section 2(1)(zf) defines ‘security interest’ to mean a right, title and interest of any kind whatsoever upon the property created in favour of any secured creditor and includes any mortgage other than those specified in Section 31;
 - Section 31 (i) excludes any security interest created in agricultural land from the purview of SARFAESI Act;
 - The natural corollary of a conjoint reading of Section 2(1)(zf) and Section 31(i) is this that a security interest created in agricultural land is no security interest at all and hence, it is not capable of enforcement under the aegis of SARFAESI Act, as none of its provisions could be made applicable as against such agricultural land.
 - As the term ‘secured creditor’ under Section 2(1)(zd) refers to a bank or financial institution in whose favour ‘security interest’ is created, the term ‘secured debt’ under Section 2(1)(ze) is referable to a debt secured by any security interest and the term ‘secured asset’ under Section 2(1)(zc) is referable to the property on which the security interest is created, if the property/ asset mortgaged to a bank or financial institution to secure a debt happens to be an agricultural land, such mortgage will not qualify as a security interest at all and hence would be incapable of enforcement in terms of the SARFAESI Act.
- (c) Having said so, banks are free to take recourse to other remedies available under law, including approaching appropriate Courts, Debts Recovery Tribunals for realization of debts (including seize of agricultural land as collateral). In fact in this regard, it may be pertinent to point out that Section 19 and Section 81 of the Karnataka Land Reforms Act, 1961, provisions under MLRC and Maharashtra Provision of Facilities for Agricultural Credits by Bank Act, 1974, also expressly provides that in the event of default, it will be lawful to cause his (landowner) interests in the land to be attached and sold and proceeds be utilized in payment of such loan.
- (d) However, since such legal proceedings take considerable time and may not be cost effective (which was one of the reason why SARFAESI Act was enacted for faster recovery/redressal), hence banks may instead of seizing the collateral (through court’s order) opt for rolling over the loan duration, upon payment of accumulated interest amount, along with provide for additional terms and conditions for such extension of loan facility.

4.4 Discussion with Bankers

Based on our discussion (on no name basis) with few bankers in the State of Maharashtra and Karnataka, we understand as under:

- (a) banks do accept agricultural land as collateral and retain a copy of the passbook of the farmer.
- (b) in the event of default, instead of approaching courts/designated tribunals to seize the agricultural land kept as collateral, banks mostly ask the farmer to deposit the interest amount accumulated on the loan and then they roll over the loans for an appropriate duration. We understand that this is due to the fact that initiation of legal proceedings for a comparatively smaller land parcel may not be cost and/or time effective for the banks.
- (c) banks agree with keeping agricultural land as collateral, so that the farmer is unable to transfer (including sell) the land to third party.
- (d) it was also informed that if the farmer has given his land on lease for AgriPV project to a developer or establishes a project by himself, banks while extending agricultural loan may ask for a right on lease rent or income from generation of power. Whereas, in case of loans for AgriPV project, in addition to right on receivables, banks may ask to mortgage land also if project is established by farmer himself and if established by private developer, leasehold rights on the land may be held mortgaged.
- (e) the banks will also insist for property ownership documents (free from any encumbrances) for loan disbursement.
- (f) the terms and conditions for loan disbursement may vary from one bank to another and also from region to region (including inter-village/district), including interest rates, procedures, eligibility criteria, repayment terms, sanctioned loan amount, etc.

Query No. 5

5. **Financial implications for the solar project developer / owner as well as for the farmer. Please also highlight any tax implication on farmer/developer for establishing AgriPV power plant on the land of farmer. Whether developer and/or farmer may continue to have access to bank loans for their respective businesses i.e. AgriPV solar farms and agriculture respectively. Whether benefits/subsidies/minimum support price for farming may continue, even if agricultural land is also used for AgriPV power plant?**

5.1 Financial Implications and access to bank loans

- (a) Foreign Direct Investment (FDI) in renewable energy comes under automatic route for which 100% FDI is allowed. Investment under automatic route does not require approval from Government of India or Reserve Bank of India.
- (b) A solar developer, whether foreign investor or otherwise, can avail credit facilities from any bank or financial institution for its solar power project business. The investments can be made by anyone that is, individual, company, PE funds, etc.
- (c) The terms and conditions for sanction of credit facilities will depend on the concerned bank and may vary from one bank to another and also from region to region (including inter-village/district), including interest rates, procedures, eligibility criteria, repayment terms, sanctioned loan amount, purpose of loan, etc.
- (d) While extending credit facilities, banks, apart from the plant and machinery (all solar assets like panels, cells, inverter etc.), may also keep land as mortgage, if such land is owned by the developer. In case, land is taken on long term lease, such leasehold rights may also be mortgaged with bank. The bank undertakes a detailed due diligence, prior to mortgaging and sanction of credit facility,
- (e) In case of an AgriPV project, the project developer will either be owning the land or taking long term usage rights for the land on which the project will be set up. In both the cases, banks or financial institutions may treat the ownership/leasehold rights in same manner as for conventional solar projects.
- (f) If project developer and farmer are same, then as mentioned above, banks may ask to mortgage land also for availing credit facilities. However, if developer is different from farmer, then while extending credit facilities, banks may ask (not mandatorily and to secure themselves more) to get a no-objection certificate from farmer that during the loan tenure, farmer will not sell or divest the land or make it a condition in sale documents that solar plant shall continue to operate and lease deeds will remain valid.

- (g) Hence, in our view, the AgriPV developer and farmer can avail credit facilities separately for their respective businesses from the bank. Sanction of loans will depend upon the discretion of the bank as well as its terms and conditions and there is no bar as such for availing credit facility by a solar power developer for the solar project and the farmer for his agricultural purpose.

5.2 Tax Implications

- (a) Agriculture income in India is an exempted income from taxation and not included under total income under Income Tax Act, 1961. Accordingly, if farmer continues to cultivate the agricultural land, irrespective of the AgriPV project, the income from agriculture produce will be treated as agricultural income.
- (b) Farmer's income from giving lease hold rights to establish AgriPV project or farmer's income (if he himself becomes developer) from sale of power and/or any income from non-agricultural purpose beyond a prescribed income limit, shall be subject to same tax provisions as is in conventional solar power plant.

5.3 Continuance of benefits/subsidies/minimum support

We are of the view that the benefits/subsidies/minimum support price for farming, if applicable, will continue since the basic status of land is not changing. Agricultural activities including ploughing, tilling, harvesting, etc. continues to be performed and there is only an additional activity of a solar power project on the land.

The benefits/subsidies/minimum support price are with respect to the applicable agricultural activity for which such benefits are associated with and if that is continued, we do not see a logic or legal basis for denial of such benefit, even if an AgriPV project is installed on such land. There are various schemes in place, which provide for subsidies/ benefits connected with agriculture and the terms and conditions including eligibility criteria, benefits, etc. would differ from one scheme to another. So, as long as the farmer fulfils the eligibility criteria and terms and conditions of such subsidy/benefit scheme and continues with the agricultural activity for which it is claiming such subsidy/benefit, we are of the view that such subsidy/benefit would continue to be applicable.

However, policies in this regard may take time to get mature and until that time, government/bank officials may take different interpretation, including question on low/reduced agriculture produce due to solar panels being installed over the agricultural land and may try to proportionally reduce the benefits/exemptions extended for agricultural purposes.

Query No. 6

6. Research any legal basis or legal aspects for states to consider the introduction of a new type of land category recognizing AgriPV (apart from KUSUM component A) - any experience in the state assuring construction permit for AgriPV projects as well as all benefits associated with farming on agricultural land.

6.1 As mentioned earlier, apart from sporadic pilot projects, AgriPV projects are not (policywise) recognized/regulated currently and the legislations are silent on co-existence of both agricultural and non-agricultural activities on the same agricultural land parcel.

6.2 The solar policy of Maharashtra and Karnataka had recognized some form of AgriPV project. For instance,

- in Karnataka, KSP (as per the earlier notification dated May 22, 2014 bearing no. EN 21 VSC 2014), recognized a separate category of project namely, "projects to promote distributed generation by land owning farmers throughout the state". Through this category, GoK had endeavoured to promote solar energy projects by land owning farmers, with a capacity of 1MWp to 3 MWp per land owning farmer in Karnataka for sale of power to ESCOM at KERC determined tariff. This category was later deleted by GoK (without citing any specific reason) vide amendment made to the KSP on January 12, 2017 (notification no. EN 49 VSC 2016). Karnataka also has Surya Raitha Scheme, where government plans to replace the existing water pumps with solar water pumps.

- Similarly in Maharashtra, UEGP recognizes solar power generation projects, with project land owners being Farmer Producer Organization, Primary Agricultural Credit Societies (PACS), Self-Help Groups (SHG). The cost per MW will be fixed by MEDA and procedure for implementation will be decided by Department of Energy, GoK.
- Even in Delhi, the Delhi Government had launched “Mukhyamantri Kisan Aay Badhotri Solar Yojana” (loosely translated into “Chief Minister’s Scheme to Increase Farmers’ Income by Solar”), which allowed farmers to engage with private companies to install solar panel on their farm land. However, the land rent fixed by Government was too high in this scheme, which dissuaded the industry to come forward for such project.

6.3 Such recognition are an indication that the concept is not alien to GoK/KREDL and/or GoM/ MEDA and hence, the relevant stakeholder would need to be convinced of the success model of AgriPV project as well as technical feasibility of such project, especially since India is an agrarian economy. This can be done by way of periodic in person meetings, awareness, submission of research proposals and study, etc.

6.4 Hence, the first step would be to introduce AgriPV project category in the solar policies of Maharashtra and Karnataka, with clear directions and process in place. In this regard, the GoM and GoK have the power to amend any of the provisions under the UEGP and KSP respectively and hence, representations and meetings with relevant stakeholders of GoM and GoK must be done as well as with MNRE, which is the nodal ministry of the Government of India for all matters relating to new and renewable energy.

6.5 As per a recent media report, Mr. Gopal Krishna Gupta, joint secretary at the MNRE, told The Wire at the India Pavilion at the 2018 COP24 in Katowice, Poland as under:

- MNRE is actively working on a policy that will give solar companies an option to have legal agreements with farmers, wherein farming can continue, if the height of the panels is increased. This will be an additional opportunity for the solar companies.
- The discussions were nearing their close, and it can be expected very shortly.
- MNRE is thinking of increasing the lease to INR 30,000 per acre. Going forward, they will only lease the land and not acquire it. The farmers will continue to own the land. They can set up solar parks or tie up with developers.
- MNRE’s job in this setup will be to “ensure that farmers are not fleeced by anyone.

6.6 The above statement indicates that MNRE, which is the governing ministry for renewable energy, is taking keen interest and envisaging to come out with certain policies/guidance note for AgriPV project, which then may be followed by respective development agencies of the states. This will be the dawn of new category for solar projects and separate policies may be made in this regard.

6.7 As famously said “land cannot be multiplied or reproduced”. Land is limited, therefore every industry or activity on land will have to find alternate ways to minimise the usage of land while having maximum output. Solar Projects need lot of land in comparison with other renewable energy resources. For example, a wind turbine (in the range of 3 MW) generally needs one hectare (approx. 2.5 acres) of land, whereas one MW of solar project nees at least 5 acres of land (effectively 15 acres for 3 MW to compare it with wind turbine) which is a major cause of concern for solar industry. Therefore, policy makers, various stakeholders, industry all are finding ways how to reduce the requirement of land. AgriPV projects are one of such ways to find a solution to this problem. Studies must be undertaken to promote AgriPV projects and to find the new crops suitable underneath such projects and how to increase the yield of such fields constantly. Once farmers realise the potential of AgriPV projects, they will not only get encouraged to go for AgriPV projects but existing solar projects may also get converted to AgriPV projects.

Query No. 7

7. Recommendations to accelerate construction permits for AgriPV projects in each state on agricultural land. Our recommendation to accelerate construction permits for AgriPV project on agricultural land in Maharashtra and Karnataka, are as under:

- 7.1 **AgriPV project must be specifically recognized under the Solar Policies of the concerned state. This will help in laying down the provisions as well as governing and making the process smoother and easier for setting up such project.**
- 7.2 **Single window clearance system specifically for AgriPV project with one nodal agency, is recommended, so that the setting up process and obtaining required approval can be simplified and made easier for farmer and project developer (if separate from farmer).**

Further, such system must ensure time bound approval along with clear designated escalation mechanism. If approval of AgriPV project is not fast tracked and without hassels, farmers may get discouraged and may not opt for such projects.
- 7.3 **AgriPV project developers must be allowed to start project execution, without waiting for formal approvals, upon filing of necessary application.**
- 7.4 **Pre-fixed and progressive tariff for AgriPV project must be notified and should be revised from time to time.**
- 7.5 **Budget to be earmarked for smaller sub-station so that farmers from every village can connect with minimum EHV lines. Standalone/off grid should be encouraged.**
- 7.6 **MEDA and/or KREDL should appoint designated nodal officers or set up a dedicated cell with respect to AgriPV project at district and taluk levels, so as to assist farmers and/or project owners (if different from farmer) in obtaining the required approvals, co-ordinate with various other agencies and/or monitor such projects.**
- 7.7 **Since the current legislations in Karnataka and Maharashtra recognize deemed conversion of agricultural land for solar projects and is silent on land use for AgriPV projects, the land legislations may be amended to provide for mixed use of agricultural land and non-agricultural land having solar power project, without any requirement of obtaining permission, intimation and/or payment of fees, fines, etc.**
- 7.8 **Since AgriPV project is a new concept, which may tremendously boost the potential of agriculture combined with solar power project activity, concerned government authorities should initiate and provide for specific policies, fiscal incentives, schemes or programme for such a project. It may be suggested to earmark a certain portion of agricultural land in a prescribed area for AgriPV project which may be like pilot project and farmers and local developers may be educated through such pilot projects. While doing so, authorities need to create a balance between such crops which can be grown with solar panels and such crops which need direct sunlight etc. like wheat, rice etc**
- 7.9 **In order to promote AgriPV project, the nodal authorities may make it compulsory for utilities and industry to purchase certain part of their power from AgriPV projects. This will tremendously boost the potential of AgriPV projects.**
- 7.10 **There should be periodic meeting between farmers and nodal agencies for recommendation, feedback and assistance in setting up AgriPV project, including feedback, recommendation and redressal on delay in obtaining approval within prescribed time.**
- 7.11 **Since primary focus of AgriPV project is the farmer, hence exemptions/concessions from obtaining certain approval and/or registration should be considered. Conversion tax/fines should not be levied for setting up AgriPV projects. Lease rent from farmers (if applicable) to solar power developer should be reasonable.**

7.12 Creation of awareness and conducting of high level research should be done, so that the relevant stakeholders are convinced about the success model of AgriPV projects. Further, proper implementation of any scheme (whether financial or otherwise) initiated/launched for AgriPV project is of vital importance.

7.13 Installation of solar panel is highly capital intensive and hence, there is a need to introduce attractive credit facilities/scheme for farmers and private players, so they are encouraged and come forward on their own for setting up AgriPV project.

D. Assumptions

We are given to understand that:

1. The projects is not located in the vicinity of a wildlife national park, sanctuaries, habitats or other protected area, protected monuments or sites of archaeological importance, coastal areas, etc.
2. The transmission lines are not crossing any highways and/or railways.
3. The land on which AgriPV project will be set up will be held by farmer and used (continued) for the purpose of agriculture, together with the set up of solar power plant.
4. Land on which the AgriPV project will be set up, does not belong to any scheduled tribe and/or is situated in the city of Mumbai.
5. The agricultural land held by farmer and on which AgriPV project will be set up is within the ceiling limit as per applicable laws.
6. The information provided in the Concept Note is not intended to provide tax and/or accounting advice, for which we recommend to consult tax experts.

E. Disclaimer and Qualifications

1. This Concept Note is issued to IGEF-SO, solely for its benefit and may not be relied upon by any other person or for any other purpose.
2. We make no representation that we have reviewed all legislations other than the legislations more particularly referred to in this Concept Note. Our views in this Concept Note are expressed basis laws, regulations, rules and guidelines, as available in the public domain, and other laws, regulations, rules and guidelines may apply.
3. Our opinion is based solely on the applicable laws of India, in force at the date of this Concept Note.
4. Our Concept Note does not intend to induce any person to omit, commit or act in any particular manner.
5. The statements expressed herein are rendered as of the date hereof and we assume no obligation to update or supplement such statements to reflect any facts or circumstances that may hereafter come to our attention or any changes in law (by legislative action, judicial or regulatory decision, or otherwise) that may hereafter occur or become effective.
6. This Concept Note is limited to the queries raised and matters expressly addressed herein and no statement is implied or may be inferred beyond the matters expressly stated herein. This Concept Note is not to be read as a statement with respect to any other factual or legal matters.
7. The views expressed are based on our understanding of interpretation of the applicable laws and provisions.
8. We cannot be held responsible for any different view of law that may be taken by any government and/or statutory body and/or any court of law. Our advice above may need to be re-considered in light of any judicial pronouncements or order of any regulatory authority in future on the issues under consideration.



Auroville Consulting

Legal assessment of AgriPV in Andhra Pradesh, Tamil Nadu and Telangana

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Executive Summary

This report examines and evaluates the legal provisions for implementing commercial Agri-photovoltaics (Agri-PV) projects in three Indian States, Tamil Nadu, Telangana and Andhra Pradesh. The key findings are as listed below:

1. Under the Constitution of India, land and agriculture are state subjects, therefore each state has the power to legislate and regulate the subject. Because of this, one finds divergence in the manner in which land and agriculture are regulated in different states.
2. The current regulatory framework does not contemplate Agri-PV, either as a stand alone type of project or as a component of agriculture. This implies that the development and thereafter operation of an Agri-PV project requires the same level of compliance as any other solar project.
3. Due to the absence of a clear recognition of Agri-PV as an activity that is integral to agriculture, the effect is that all benefits that are available linked to agriculture will not be available for the agricultural component of an Agri-PV project, such as subsidies and tax benefits.
4. Thus, it is essential to recognise Agri-PV projects as a specific hybrid category that has an agricultural and non-agricultural component. This categorisation should take into consideration all aspects of both the components, to facilitate growth of the sector. This should at the minimum include, availability of tax benefits and access to subsidies for the agricultural component and ability to mortgage and or lease the land and other assets that are utilised for the non-agricultural component (directly or through special purpose corporate vehicles).

1. Scope

This report presents a review of the legal literature related to the implementation of a private sector commercial AgriPV project up to 2 MW. It outlines the process and steps necessary to develop an AgriPV project as per the rules of the three different states, Tamil Nadu, Telangana and Andhra Pradesh.

2. Introduction

The Government of India has set an ambitious target of achieving 100 GW of solar capacity in year 2022 of which 40 GW is expected to be solar rooftop installations while the largest share (60 GW) is designated for utility-scale ground-mounted PV. Considering a further increase of land scarcity in India, creative solutions must be found to resolve land requirements of both, the solar and the agricultural sector. Countries with similar land scarcity issues like Japan have launched AgriPV projects in the early 2000s to improve their Land Equivalent Ratio (LER). Further benefits of co-location of agriculture and photovoltaics also called AgriPV provide additional income for local farmers through higher yield as well as from the income from power generation or from renting land. Finally, a reduction in CO₂ by reducing local emissions from conventional power plants benefits the whole country.

The Government of India is now exploring possibilities to further increase the multipurpose usage of land by co-location of agriculture and solar PV. A major step forward to find a common solution for promoting the co-location of solar PV and agriculture in India was raised in July 2019 by the Union Finance Minister in the Parliament, stating that Annadata [farmer] can also be Urjadata [producer of energy]. However, concrete regulations on this might be implemented in the field of AgriPV are not yet revealed. Therefore, a legal study is required to find out how agricultural land can be combined with photovoltaics to have AgriPV.

3. Land and agriculture - a state subject

Under the Constitution of India (COI), the Seventh Schedule sets out matters that can be legislated upon by the central government or the state government, respectively. Under the Seventh Schedule, Part II sets out the matters wherein legislative competence is solely vested in the statute¹. Relevantly matters covered in Part II include, agriculture², land³, land revenue, including the assessment and collection of revenue, the maintenance of land records, survey for revenue purposes and records of rights, alienation of revenues⁴, taxes on agricultural income⁵ and taxes on lands and buildings⁶.

This implies that every state has its own state specific set of law governing land matters and agricultural matters. Hence, every state has its own laws relating to land, its usage and ownership. Thus, one finds, that there are very different legislative approaches vis-à-vis agricultural land and its utilisation, thus some states prohibit transfer of agricultural land to non-domiciled person or to specific types of persons and have other compliance in respect of sale and purchase of agricultural land, some states prohibit leasing of land and different states have different limits on extent of land ownership.

As a rule, utilisation of agricultural land for what is considered a non-agricultural purpose requires prior approval. In most states 'agriculture' is defined and non-agriculture is construed accordingly. For example, illustratively the definition of agriculture in the Tamil Nadu Agricultural Labourers-Farmers (Social Security and Welfare) Act, 2006 is: 'agriculture' includes - (a) horticulture; (b) sericulture; (c) the raising of crops, grass or garden produce; (d) the use by an agriculturist of land held by him or part thereof for grazing; (e) the use of any land for the purpose of raising manure crops; (f) dairy farming; (g) poultry farming; (h) livestock breeding; (i) growing of trees; and 'agriculture shall be construed accordingly. Therefore, any purpose that does not fall in the boarder definition of 'agriculture', such as AgriPV, ends up being classified as non-agricultural, effectively rendering the situation similar to what would have been the case if a full-scale solar project was being established on the land in question.

Thus, even for an AgriPV the land has to be first converted into 'non-agricultural' land prior to its utilisation. Each state has its own regulatory framework for conversion of agricultural land into non-agricultural land. As a general rule, conversion requires approval of the relevant government authority at the district level (such as district collector or deputy commissioner) and payment of the requisite conversion fees.

1 Article 246 of COI

2 Entry 14, Part II, VII Schedule, COI

3 Entry 18, Part II, VII Schedule, COI

4 Entry 45, Part II, VII Schedule, COI

5 Entry 46, Part II, VII Schedule, COI

6 Entry 49, Part II, VII Schedule, COI

4. Legal requirements to obtain a construction permit

As mentioned, prior to utilisation of the land for a solar power project, the land is necessarily required to be converted into non-agricultural land. Thereafter the project construction can take place, for which the requisite approvals are required to be obtained. Again, given the generic manner of the prescribing statutes the requirement to obtain a construction permit for a solar project in effect is similar to obtaining a construction permit for any other project (or for that matter building). This therefore makes the process as bureaucratic as it will for any other project, and does not take into consideration the specific peculiarities of a solar project (especially an AgriPV project). The process for obtaining construction permits in the states of Tamil Nadu, Andhra Pradesh and Telangana are discussed below.

4.1. Tamil Nadu

In the state of Tamil Nadu, the aspect of grant of permits for carrying out of any construction activity is also governed by the provisions of the Tamil Nadu Town and Country Planning Act, 1971 (**TN TCP Act**) as well as the Tamil Nadu Combined Development and Building Rules, 2019 (**TN CDB Rules**). Under the TN TCP Act, any person intending to develop any land or building is required to obtain requisite planning permission before commencement of the proposed work.⁷ Under the terms of the TN TCP Act, any work undertaken without appropriate permission will be unauthorised, even if all other permissions (under other laws) have been duly obtained. Depending on the location of the proposed project, the approval is required to be obtained from the relevant local authority, such as the panchayat in rural areas and the municipality in a municipal area.

Under the current TN CDB Rules, permissions are given to specific activities only, such as: farmhouses and buildings for agricultural activities; installation of electric machinery of not exceeding 15 horsepower, mills for grinding, hulling, etc., of cereals, pulses, food grains and oilseeds provided the site has proper access and installations do not exceed 50 H.P. Thus, these rules for now do not contemplate AgriPV projects. Hence, the requirement under the law, from a construction permit requirement requires a project of the nature of an AgriPV project will be treated as a commercial use.

4.2. Andhra Pradesh

In the state of Andhra Pradesh, regulation of construction permits is governed by the provisions of the Andhra Pradesh Building Rules, 2017 (**AP Building Rules**), the Andhra Pradesh Land Development (Layout and Sub-division) Rules, 2017 (**AP Layout Rules**) and the Andhra Pradesh Gram Panchayat Land Development (Layout and Building) Rules, 2002 (**AP GP Rules**). The AP Building Rules and the AP Layout Rules apply to all areas that are covered by urban local bodies (such as municipalities and urban development authorities) and in the case of rural and semi-rural bodies such as nagar panchayats and gram panchayats areas (covered in master plans/general town planning schemes notified under Andhra Pradesh Town Planning Act, 1920). The AP GP Rules apply to all other residual rural areas, that is area not covered by urban local bodies, nagar panchayats or panchayats areas covered in master plans/general town planning Schemes.

The AP Layout Rules cover all types of development, including commercial and mixed use and define development to mean: “the carrying out of building, engineering, mining or other operations in, or over, or under land and water, or in the use of any building or land, and includes redevelopment and layout and subdivision of any land; and ‘to develop’ shall be construed accordingly”. Thus, if any development is proposed to be undertaken a requisite approval is required to be taken from the relevant authority.⁸

4.3. Telangana

In the state of Telangana, approval of construction permits is facilitated through an online system that has been established under the Telangana State Building Permission Approval and Self Certification System (TS-bPASS) Act, 2020 (**TS-bPASS**). The TS-bPASS is applicable throughout the state and regulates all development, that is: “the carrying out of any activity of construction or building, or other operations in, or over, or under land or water, or the making of any material changes or otherwise, in any building or land or any part thereof, or in the use of any building or land, and includes any repairs or redevelopment and layout and sub-division of any land and the words “to develop” shall be construed accordingly”. The TS-bPASS regime is self-compliance oriented and focusses on

⁷ Section 49 of the TN TCP Act

⁸ Rule 7 of the AP Layout Rules

self-certification. The aim of TS-bPASS is to ease the process of securing approvals by granting of tentative time bound approvals on submission of the requisite documents and on payment of the requisite fees.⁹ In respect of works that were being undertaken on gram panchayat regulated areas, the TS-bPASS specifically, brought gram panchayats under the TS-bPASS to ensure strict regulation.¹⁰ Thus, the process of securing a construction permit has been considerably simplified in Telangana.

4.4. Summing up

States in India follow varying approaches to regulation of construction and development activity. One commonality that exists though, is that over the years the approach has been to simplify the process and increase compliance. For this as well, states have different approaches, such as allowing for a fully controlled process with detailed guidelines on what can be expected from a developer so as to ease the process of securing approvals such as in Tamil Nadu or a largely self-certification model like in Telangana. Moving the process completely or at least a major part of it online is also an approach that is increasingly being followed by states to ease compliance and facilitate delivery. In respect of AgriPV project, given the relatively negligible amount of construction (or development) involved, the primary recommendation would be to allow for a light touch compliance and certification model, possibly on the lines of the TS-bPASS, with a specific approval provision for AgriPV.

5. Barriers in the conversion of agricultural land

Usage of agricultural land for non-agricultural purposes including either a multi MW solar project or AgriPV project will, in the absence of a specific provision, necessarily require conversion of the land into non-agricultural.

This is the current position in the state of Tamil Nadu. On the other hand, in the states of Andhra Pradesh and Telangana there is a provision of 'deemed NA' for solar project, which therefore provides that the work on the project can commence irrespective of the grant of the NA permission and the only requirement is for payment of the requisite conversion charges.

5.1. Tamil Nadu

As mentioned, the position in Tamil Nadu varies from the state of Andhra Pradesh and Telangana, and therefore a lengthier process for the conversion of agricultural land is required to be followed.

By way of background, in Tamil Nadu, on account of haphazard urbanisation, prompted by the grant of conversion permission by village panchayats, the Madras High Court¹¹, in the recent past had imposed restrictions on conversion and registration of land, as in its view such a restriction was 'necessary in order to prevent unauthorised and haphazard development/sale of agricultural areas for agricultural use, and giving government time to come with a broad policy document to save ecology and prevent flooding'.

Consequently, the Tamil Nadu government promulgated the Tamil Nadu Change of Land Use (From Agriculture to Non-agriculture Purposes in Non-planning Areas) Rules, 2017 (TN NA Rules). The TN NA Rules were promulgated under the TN TCP ACT. The TN NA Rules are applicable across the state other than areas that have been notified as planning areas.

The TN NA Rules prescribe a step-wise procedure for conversion and requires that:

1. the requisite application is to the relevant local authority in the prescribed form along with the necessary scrutiny fees;¹²
2. the relevant local authority is required to see prior concurrence of the relevant Director of Town and Country Planning, prior to grant of the permission;¹³
3. the Director of Town and Country Planning is required to obtain prior concurrence of the relevant Collector in case of wet lands and the Joint Director of Agriculture in case of dry lands;¹⁴ and
4. the relevant local authority is thereafter on receipt of the Director of Town and Country Planning's concurrence,

⁹ Section 6(1) of the TS-bPASS Act.

¹⁰ Memo No.7740/Plg.III/MAUD/2021 Dated: 08.06.2021 Sub: TS-bPASS – Approval of layouts in Gram Panchayats – Regulation of unauthorised layouts – Instructions issued –Reg.

¹¹ See - <https://www.thehindu.com/news/national/tamil-nadu/Madras-High-Court-ban-set-to-promote-planned-development/article14632964.ece>

¹² Rule 3 of the TN NA Rules

¹³ Rule 4 of the TN NA Rules

¹⁴ Rule 5 of the TN NA Rules

grants permission for the development, subject to the payment of the relevant land use conversion charge (currently 3% of the market value)¹⁵.

Once, the requisite compliance is undertaken the revenue records will also be updated and the land can be utilised for the non-agricultural purposes. The TN NA Rules also require that the applicant provides a requisite undertaking, wherein the applicant agrees, amongst other aspects to:

- not to proceed with the development until the permission has been granted;
- not to do any work otherwise than in accordance with the approved plan; and
- not to start execution of work unless permission for the development under the relevant laws of the local body has been obtained.

Rule 6(1) (e) of the TN NA Rules, requires that the Collector (in the case of wet land) prior to giving concurrence be satisfied that the land in question is not “*land fit for continuing conversion*”.

Rule 6(2) of the TN NA Rules, further requires that the Collector, along with the Deputy Director of Town and Country Planning and other relevant officials, be necessarily required to inspect the proposed site and, amongst other matters, assess that:

- present status of cultivation in the land and for how long the cultivation was not carried out along with reasons; and
- impact on the overall agricultural productivity in the proposed land and the necessity to continue agricultural production.

Thus, the intention of the TN NA Rules is to prohibit the usage of cultivated land for non-agricultural purposes.

5.2. Andhra Pradesh

In Andhra Pradesh the usage of agricultural land for non-agricultural purposes is governed by the Andhra Pradesh Agricultural Land (Conversion for Non Agricultural Purposes) Act, 2006 (**AP NA Act**).

The AP NA Act defines ‘non-agricultural land’ to mean land other than agricultural land and defines agricultural land as land that is used for agriculture that is (i) the raising of any crop or garden produce; or (ii) the raising of orchards; or (iii) the raising of pasture; or (iv) Hay-ricks. Thus, on account of the restrictive definition, any usage, including for an AgriPV would necessarily be a non-agricultural usage under the AP NA Act. Under the AP NA Act no agricultural land can be put to a non-agricultural purpose, without the prior payment of conversion tax.¹⁶ This provision prior to 2018 was a restrictive one, i.e., it necessarily required the grant of a permission before putting the land to non-agricultural use. This ties in with the stated policy of the government to facilitate certain types of projects, including solar projects by providing for a deemed non-agricultural regulatory regime,¹⁷ wherein the land can be put to use immediately and by undertaking the prescribed compliance, including payment of the requisite conversion charges. The AP NA Act however does not explicitly restrict usage of fertile for solar projects.

5.3. Telangana

Like Andhra Pradesh, Telangana also follows a deemed non-agricultural regulatory regime for solar projects, that are grid connected for sale to distribution companies/captive use or third party sale.¹⁸ Therefore, solar projects (including AgriPV) projects will not be required to obtain prior clearance under the Telangana Agricultural Land (Conversion for Non Agricultural Purposes) Act, 2006 (**TS NA ACT**) but will only be required to make payment of the applicable conversion charges as prescribed under the TS NA Act. The TS NA Act also does not explicitly restrict usage of fertile land for solar projects.

¹⁵ Rule 10 of the TN NA Rules

¹⁶ Section 3 (1) of the AP NA Act

¹⁷ Clause 4 h) of the AP Solar Power Policy also re-emphasised in Andhra Pradesh Renewable Energy Export Policy, 2020 Clause 12.

¹⁸ Clause 11 b) of the Telangana Solar Power Policy 2015

5.4. Summing up

The process in Andhra Pradesh and Telangana is fairly straight forward given the exemption for solar projects. However, in Tamil Nadu, while the process has been rationalised, there remains certain degree of unpredictability due to involvement of different bureaucratic levels. To address these issues to some extent, the government from time to time under its ease of business policy, proposes measures that are intended to make the process smoother and flexible.¹⁹

Thus, the ideal way forward (in the case of Tamil Nadu) would be allow for either a specific category that takes into consideration the distinct nature of an AgriPV project or at the very least provide for a deemed non-agricultural permission, as is the case in other states. In any event, the best approach however remains to have an eventual hybrid model taking into consideration the specific nature of an AgriPV.

6. Avenues to obtain a construction permit for AgriPV

Please see response to Section 4 above. As noted, the primary issue that arises is the absence of a specific category for AgriPV projects, thus securing permits for such projects could theoretically face additional bureaucratic hurdles (as opposed to say a purely solar project or a purely construction project). However, the states of Tamil Nadu, Andhra Pradesh and Telangana have seen large scale solar development and therefore local authorities are comfortable in granting of permits in a time bound manner for such project and there haven't been significant cases wherein delay has been sighted on account of grant of a construction permit.

7. Legislation in regard to credit against agricultural land as collateral

Growth of institutional credit towards farming sectors has been growing in India but remains subservient to non-institutional credit schemes. The institutional credit lines are dominated by sector specific lenders, such as the Regional Rural Banks, Grameen Banks, Cooperative Banks and Agricultural Credit Societies/Corporations.

Traditional banking credit to the farming sector has been limited primarily because of the restriction under the Securitisation and Reconstruction of Financial Assets and Enforcement of Security Interest Act, 2002 (SARFAESI Act) to enforce any security interest that has been created on agricultural land.²⁰ On account of this restriction, the banks are required to follow a protracted recovery process through courts and tribunals.²¹

However, it might be noted that the Supreme Court, while looking at this section in granular detail²² and observed that the provision in the SARFAESI Act has a specific purpose that is to protect agriculturalists utilising land for agricultural purposes, and therefore will not apply as a blanket restriction on enforcement actions by a creditor. Relying on an earlier judgement²³ of itself, the court held that: *“What is really required to be shown is the connection with an agricultural purpose and user and not the mere possibility of user of land, by some possible future owner or possessor, for an agricultural purpose. It is not the mere potentiality, which will only affect its valuation as part of “assets”, but its actual condition and intended user which has to be seen for purposes of exemption from wealth-tax. One of the objects of the exemption seemed to be to encourage cultivation or actual utilisation of land for agricultural purposes. If there is neither anything in its condition, nor anything in evidence to indicate the intention of its owners or possessors, so as to connect it with an agricultural purpose, the land could not be “agricultural land” for the purposes of earning an exemption under the Act. Entries in revenue records are, however, good prima facie evidence.”*

In another judgement, the Supreme Court²⁴ has held that the determination is factual and not merely based on the nature of the land in question (i.e., being classified as agricultural land in the revenue records): “Whether a land is an agricultural land or not is essentially a question of fact. Several tests have been evolved in the decisions of this Court and the High Courts, but all of them are more in the nature of guidelines. The question has to be answered in each case having regard to the facts and circumstances of that case. There may be factors both for and against a particular point

19 See - <https://timesofindia.indiatimes.com/city/chennai/single-window-50-day-deemed-nod-for-land-reclassification-for-industries-in-tn/article-show/73782425.cms>

20 Section 31 (j) of the SARFAESI Act. It is interesting to note that banks are currently demanding the setting up either a dedicated asset reconstruction company to take over farm debts and/or provide for a legislation similar to the SARFAESI Act that applies in respect of farm debts - see: <https://indian-express.com/article/india/ahead-of-polls-bad-bank-for-farm-loans-7657896/> (as seen on 21st December 2021)

21 I.e., through the Recovery of Debts and Bankruptcy Act, 1993 or contractually.

22 ITC Limited vs Blue Coast Hotels - 2018 (4) SCALE 628

23 Commissioner of Wealth Tax, Andhra Pradesh v. Officer-in-Charge (Court of Wards) (1976) 3 SCC 864

24 Sarif Abibi Mohmed Ibrahim vs. CIT (1993) Supp 4 SCC 707

of view. The Court has to answer the question on a consideration of all of them a process of evaluation. The inference has to be drawn on a cumulative consideration of all the relevant facts.”²⁵

Thus, while there is clarity on the issue from a judicial point of view, the requirement of a factual analysis deters flow of credit in the agricultural sector.

Nevertheless, the Reserve Bank of India (RBI) in its Master Directions – Priority Sector Lending (PSL) – Targets and Classification, has specifically provided for: “Loans to farmers for installation of solar power plants on barren/fallow land or in stilt fashion on agriculture land owned by farmer.”

7.1. Summing up

Thus, from a banking regulatory point of view, the flow of lending capital in the AgriPV sector is eventually expected to increase given the express classification of the RBI of the sector as a priority lending sector. However, without long term certainty and clarity on the specific treatment of AgriPV projects, practical anomalies will continue. This will in the short-term hamper credit flows to the sector (with lender continue to seek a requirement to secure assets other than land) and is not expected to pick up till such time as a critical mass of projects are on the ground. Addressing other issues (discussed in this report), such as land usage clarity and permitting clarity will also ease the credit flow.

8. Economic implications for the solar project developer and farmer

Agriculture as an activity has been provided a number of tax reliefs. This has been the position primarily on account of the presence of significant number of marginal farmers. However, the nature of the reliefs as a rule envisage that the income being derived is from an agricultural activity. This implies that if the land is converted into non-agricultural land to support an AgriPV project a number of benefits that were considered as customarily available will not be available. Further, given the nature of functioning of revenue officials, the positions that will be taken will, in the absence of a clear exemption, always be adverse and aimed at tax maximisation. Thus, there is a requirement to engage with the tax authorities and provide for specific exemptions to address AgriPV issues. A few specific aspects are briefly discussed below.

8.1. Income Tax Act

Under the Income Tax Act, 1961 (**Income Tax Act**) income from agricultural activity is exempted, further any capital gains arising on transfer of agricultural land are also not liable to income tax. This exemption will not be available on conversion of land into non-agricultural land.

Section 10 (1) of the Income Tax Act exempts ‘agricultural income’ from the total income of any person. Agricultural income is defined under Section 2 (1A) of the Income Tax Act to include: (i) any rent or revenue derived from land used for agricultural purposes; (ii) any income derived from such land by agriculture operations including processing of agricultural produce so as to render it fit for the market or sale of such produce: and (c) any income attributable to a farm house (subject to certain other terms and conditions). Further, Explanation 2 to Section 2 (1A) specifically states: “For the removal of doubts, it is hereby declared that income derived from any building or land referred to in sub-clause (c) arising from the use of such building or land for any purpose (including letting for residential purpose or for the purpose of any business or profession) other than agriculture falling under sub-clause (a) or sub-clause (b) shall not be agricultural income.”

Thus, once an AgriPV project is established, on land that is converted to non-agricultural, it will be chargeable to tax at the normal tax rate. Thus, to avoid this, it is important to provide a specific exemption, if not to the whole income, but at least that share of income that is derived from the agricultural activity. This is also relevant as the Supreme Court²⁶ has held that the onus lies on the assesses who claims exemption to establish it. Thus, a clear and precise exemption is essential. Reliance can be placed on the type of methodology that is utilised for tea cultivation, wherein forty percent of the income is exempt from tax. A similar percentage-based exemption should be considered for AgriPV.

The Income Tax Act also provides certain exemptions for transfer of agricultural land, which will not be available once the land is converted into non-agricultural land. Section 54B of the Income Tax Act provides that if agricultural land

25 In the context of Tamil Nadu, the Madras High Court has applied this position amongst others, in the matter of Kalpesh P.C.Surana vs Indian Bank (2010) 3 MLJ 849

26 CIT Vs R. Venkataswamy Naidu (1956) 29 ITR 529(SC)

is sold by a taxpayer and the taxpayer thereafter within a period of two years acquires another agricultural land, he is exempted from payment of capital gains tax. Subject to certain conditions being met, these include: (i) asset should be held by an individual or a Hindu undivided family; (ii) asset being transferred should be agricultural land; and (iii) agricultural land should be used by the individual or his parents for agricultural purpose at least for a period of two years immediately preceding the date of transfer. Thus, once the land in question is converted to non-agricultural land the above exemption will not be available. Again, to avoid this issue, it is recommended that a percentage-based exemption is considered.

8.2. Goods and Services Tax

Goods and Service Tax are regulated under the provisions of the Central Goods and Services Tax Act, 2017 (CGST Act). Specifically, under the CGST Act, any lease, tenancy, easement, and license to occupy land are treated as supply of services and is subject to 18% tax. However, in so far as services relating to agriculture are concerned, certain services are currently listed to be as chargeable to 'nil' tax²⁷, these include services relating to (i) agricultural operations directly related to production of any agricultural produce including cultivation, harvesting, threshing, plant protection or testing; (ii) supply of farm labour; (iii) processes carried out at an agricultural farm including tending, pruning, cutting, harvesting, drying, cleaning, trimming, sun drying, fumigating, curing, sorting, grading, cooling or bulk packaging and such like operations which do not alter the essential characteristics of agricultural produce but make it only marketable for the primary market (iv) renting or leasing of agro machinery or vacant land with or without a structure incidental to its use and (v) agricultural extension services.

Thus, for now services not directly undertaken by a farmer are liable for a nil tax. However, this means that if a service that doesn't qualify, such as leasing for AgriPV or utilising labour services for the same it will attract tax.²⁸ Suffice to say that, more clarity is required on the tax treatment of AgriPV under the provisions of the CGST Act, including possibly creation of a specific entry addressing the issue.

8.3. Other Aspects

There are a number of specific aspects that need to be borne in mind if land is converted into non-agricultural land, this includes incidence of property tax akin to commercial lands, obligation to seek approval for water usage which will not be considered commercial and obtaining of certain subsidies, such as power and irrigation subsidy will be complicated as none of these subsidy schemes envisage a hybrid farming model. Further, the subsidies are linked to the farmer and therefore it is possible that even though from a strict construction of the nature of the scheme it is possible that the subsidy is not applicable in the context of the farmer whose land is being used for an AgriPV project, it is likely that in so far as the farming operation is concerned the subsidy continues to be available. However, to avoid complications and governmental restrictions it is best to provide for a specific treatment of subsidies, at least in respect of central subsidy schemes, such as the credit, seed, fertiliser and water subsidy. This may also be relevant in the case of the central government's minimum support price scheme (MSP) that currently does not procure commercially farmed produce at the MSP and it also requires that land documentation is a necessary document for availing the MSP, it is likely that an AgriPV project on non-agricultural land will make it difficult to claim MSP. In any event, since the MSP is for now operated as a market initiative and not law (which is under discussion), clarity on this aspect is essential, especially in the context of an AgriPV.

9. Legal basis for the introduction of a new land category recognizing AgriPV

As discussed above, the absence of a specific regime or for that matter any sort of recognition of AgriPV as a distinct category leads to a scenario wherein under the legal framework effectively setting up of an AgriPV project is treated similar to setting up of a utility scale solar project.²⁹ This is with respect to the nature of the land, the requirement of permits, and the treatment of income generated from the project.

27 S. No. 54 of Notification No. 12/2017- Central Tax (Rate) dated 28 June 2017

28 It may be noted that for now an agriculturalist is exempted from GST registration, provided such agriculturalist undertakes cultivation of land by his own labour or by the labour of family or by servants or wages payable in cash or kind or by hired labour under personal supervision or, the personal supervision of any member of the family

29 This has been the case in other jurisdictions as well, for example in State of Massachusetts (United States of America, which has significant AgriPV installation. See - Alexis S. Pascaris, Examining existing policy to inform a comprehensive legal framework for agrivoltaics in the U.S., Energy Policy 159 (2021) 112260.

Thus, if the AgriPV sector is required to grow at its desired pace, it is essential a specific category is created and/or specific exemption are provided, both under central and state laws. Such provision shall ensure that AgriPV projects are not treated merely as any other solar project and effectively results in a situation where in both the solar aspect and the agricultural aspect are actually unable to claim benefits and exemptions that are available on a stand-alone basis.

10. Recommendations to accelerate construction permits for AgriPV

Once provisions are built recognising AgriPV projects as a specific category in the broader legal framework, the process of securing of the requisite permits will be significantly more efficient. This will also ensure that the projects are treated differently and therefore the bureaucratic delays are minimised. It may also be useful to consider deemed grant of approvals for such projects. Lastly, the initiation of grant of approvals, through a primarily online mode will also increase and accelerate the grant of the requisite approvals.

The key challenge that the development of AgriPV faces from a regulatory point of view is the absence of a comprehensive policy integration, hence the interaction of different laws leads to additional compliance burdens at the minimum and contrary positions at the maximum. Thus, given the benefits that AgriPV brings, it is important to consider a comprehensive framework that is conducive to the development of AgriPV and involves a multi-level and multi-sector approach. Such comprehensive framework needs to necessary include a combination of central, state and local level policy integration, such as in terms of tariff, zoning laws, agricultural benefits and subsidies and tax treatment.

11. Key Findings

A review of the current regulatory framework highlights certain gaps in the framework that will hamper the development of AgriPV projects. The approach to address these gaps could be to either to utilise existing provisions of the law and then address the outcomes or seek reasonable modifications in the law so as to automatically have desirable outcomes. The problem with addressing issues with addressing the shortcomings in the underlying framework is that the development of AgriPV will be significantly constrained and will impact the growth of the sector. Based on our analysis, please see below a high-level summary table that points out the issue, its implications and our potential recommendation to address the same.

Table 1 Summary of findings

S. No.	Government Level	Issue	Analysis	Recommendation
	Tamil Nadu	Conversion of Land	The process for converting land, including for an AgriPV project is similar to any other project and therefore will face the same challenges and delays, including a two tier assessment.	<ol style="list-style-type: none"> 1. AgriPV should be considered as a special category requiring, either no conversion or a limited hybrid conversion (say 20% of the land) 2. For the land requiring conversion the process should be of deemed NA, i.e., it is put to use immediately and only the conversion charges are required to be paid. 3. The process for obtaining permission should be completely moved online.

S. No.	Government Level	Issue	Analysis	Recommendation
	Tamil Nadu	Construction Permit	The process for obtaining construction permit for an AgriPV is similar to any other project and will therefore face similar challenges	<ol style="list-style-type: none"> 1. Given that the construction impact of an AgriPV project is negligible, it is recommended that an exception is carved out based on self-compliance and self-certification 2. The process for obtaining permission should be completely moved online.
	Andhra Pradesh	Conversion of Land	Solar Projects are currently eligible for deemed NA status	<ol style="list-style-type: none"> 1. AgriPV should be considered as a special category requiring, either no conversion or a limited hybrid conversion (say 20% of the land) 2. The process for obtaining permission should be completely moved online.
	Andhra Pradesh	Construction Permit	The process for obtaining construction permit for an AgriPV is similar to any other project and will therefore face similar challenges	<ol style="list-style-type: none"> 1. Given that the construction impact of an AgriPV project is negligible, it is recommended that an exception is carved out based on self-compliance and self-certification 2. The process for obtaining permission should be completely moved online.
	Telangana	Conversion of Land	Solar Projects are currently eligible for deemed NA status	<ol style="list-style-type: none"> 1. AgriPV should be considered as a special category requiring, either no conversion or a limited hybrid conversion (say 20% of the land) 2. The process for obtaining permission should be completely moved online.
	Telangana	Construction Permit	Telangana follows a self-certification process	While this approach is excellent for the time being, in the long run it is advisable to further fine tune the approach by recognising AgriPV as a specific category
	Income Tax	Taxation of AgriPV	Most tax exemptions that are available to agricultural sector, hinge on the usage of land for an agricultural purpose. For now, given that AgriPV does not qualify as an agricultural purpose, the likelihood of claiming the relevant exemptions will be fraught with difficulties.	<ol style="list-style-type: none"> 1. Ideally, AgriPV should be covered as an integral component of agriculture, and all relevant tax breaks and exemptions should be available as a matter of course. 2. If the above is not possible, there should be a hybrid taxation model (such as the one followed for tea), wherein a fixed percentage of the income (say 80% is tax free) and the rest is taxable.

S. No.	Government Level	Issue	Analysis	Recommendation
	GST	Taxation of AgriPV	While for now GST category for services in the agricultural sector is 'nil', it does not take into consideration a specific tax treatment of the services that will be required for the power component of the AgriPV project	<ol style="list-style-type: none"> 1. There should be further clarity on the GST treatment of an AgriPV project including the services that are required to be provided for the project as well as if the project is set up by leasing of land.
	RBI/Lenders	Credit flow to the AgriPV	Access to funds for an AgriPV project has inherent challenges as the current framework does not specifically address the hybrid nature of an AgriPV project	<ol style="list-style-type: none"> 1. Taking a cue from the RBI's position on classifying AgriPV as priority sector for lending, further clarity needs to be established on ability of lenders to create security on an AgriPV project (and or components thereof). 2. The above should also take into consideration the aspects of the land may eventually be hybrid (i.e., mix of agricultural and non-agricultural) and therefore appropriate ring-fencing methodologies need to be developed by lenders.
	Central Ground Water Board/ Irrigation Departments/ Electricity Department	Water to be utilised for an AgriPV project	Due to the current treatment of AgriPV projects (i.e., like any other commercial project), ability for the farmer to claim benefits for the farming component such as in respect of water and electricity is suspect.	<ol style="list-style-type: none"> 1. There is a requirement to ensure that the agricultural component of AgriPV continues to be eligible for all benefits that a stand-alone farming operation will be entitled to. 2. Norms can be prescribed for ensuring that this does not lead to a scenario where in cross-subsidisation of costs occurs, and therefore a hybrid percentage based category can be considered.

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Legal assessment of AgriPV in Uttar Pradesh, Punjab and Haryana

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REPORT

For ease of reference and understanding, we have divided this report into 2 (two) parts – Part I and Part II.

- **Part I** of this Report provides a brief background on Agriphotovoltaics projects (“**AgriPV**”) and the PM Kusum Scheme; and
- **Part II** of this Report examines the process and steps necessary to develop AgriPV project as per laws, rules, regulations and policies pertaining the Identified States as well as response to queries raised by Indo-German Energy Forum (“**IGEF**”) in this respect.

PART I

A. General – AgriPV in India & the Pradhan Mantri Kisan Urja Suraksha evam Utthaan Mahabhiyaan (“PM Kusum Scheme”)

(i) **AgriPV**

AgriPV is a system of utilizing / combining power generation through solar panels along with simultaneous production of agricultural crop/(s) on the same parcel of land.

(ii) **PM Kusum Scheme**

The Government of India to further the cause of making India the global leader in solar energy and to promote ecologically sustainable growth while addressing the country’s energy security challenge, launched the Jawaharlal Nehru Solar Mission in the year 2010. Thereafter in March 2019, in view of India’s commitment to provide energy to its farmers and to enhance their income, de-dieselize the farming sector and reduce environmental pollution, the Government of India launched the PM Kusum Scheme. The said scheme is aimed at ensuring energy security for farmers in India, along with honouring India’s commitment to increase the share of installed capacity of electric power from non-fossil-fuel sources to 40% by 2030 as part of Intended Nationally Determined Contributions (“**INDCs**”)¹.

The PM Kusum Scheme was launched with 3 (three) components:

¹ INDCs are the primary means for governments to communicate internationally the steps they will take to address climate change in their own countries. INDCs reflect each country’s ambition for reducing emissions, taking into account its domestic circumstances and capabilities. Some countries also address how they’ll adapt to climate change impacts, and what support they need from, or will provide to, other countries to adopt low-carbon pathways and to build climate resilience.

Component A	<ul style="list-style-type: none"> • Under the PM Kusum Scheme, Component A provides for setting up of 10,000 MW of Decentralized Grid Connected Renewable Energy Power Plants: <ul style="list-style-type: none"> (a) A Renewable Energy Based Power Plants (“REPP”) ranging from a capacity of 500 kW to 2 MW will be setup by: <ol style="list-style-type: none"> 1. individual farmers; or 2. group of farmer; or 3. farmer cooperatives; 4. panchayats; 5. Farmer Producer Organisations (FPO); and 6. Water User Associations (WUA). <p>(collectively referred to as Renewable Power Generator (“RPG”) on barren, fallow land, pasturelands and marshy lands owned by farmers;</p> (b) In case the individuals / group / entities specified hereinabove are unable to arrange equity required for setting up the REPP, they may collaborate (<i>by way of a leasing arrangement on terms and conditions mutually agreed between the relevant entity and the developer</i>) and undertake the development of REPP through developer/(s), which in turn will be considered as RPG. • In terms of the PM Kusum Scheme, REPP can be installed on stilts where crops can be grown below the solar panels. It is pertinent to mention that as on date under the PM Kusum Scheme such projects will have to be installed within 5 (five) km radius of the sub-stations in order to avoid high cost of sub-transmission lines and to reduce transmission losses. • Local DISCOM’s shall purchase the power generated by REPP’s at pre-fixed tariff.
Component B	Installation of 17,50,000 (seventeen lakh fifty thousand) standalone Solar Powered Agriculture Pumps of individual pump capacity up to 7.5 (seven point five) HP.
Component C	Solarisation of 10,00,000 (ten lakh) Grid-connected Agriculture Pumps of individual pump capacity up to 7.5 (seven point five) HP.

- From our perusal of the PM Kusum Scheme, we understand that the implementation period for all 3 three components i.e. Component A, Component B and Component C is till December 31, 2022².

ALP Note: In this Report, we have only dealt with requirements for Component A insofar as the same is relevant and applicable to the queries raised by IGEF.

- **Tendering Process under the PM Kusum Scheme**

In terms of the PM Kusum Scheme:

- (a) DISCOMs or agencies authorized by it (“**Relevant Agency**”) shall, as per schedule notified by it, invite Expression of Interest (“**EOI**”) from RPGs to participate in the selection process of development of REPP.
- (b) The Relevant Agency shall invite EOIs (from RPGs) for 33/11 kV or 66/11 kV or 110/11 kV sub-station.
- (c) As on date, in terms of the PM Kusum Scheme, EOIs are being invited only for the 33/11 kV sub-station. Further, RPGs are permitted to apply for 1 (one) REPP for a particular 33/11 kV sub-station. Multiple applications for a REPP in a same sub-station (by the RPG or its partner / proprietor / director / member) shall lead to its disqualification. From our perusal of the PM Kusum Scheme, it appears that there is no restriction on RPGs applying for multiple REPPs provided these are for different sub-stations.
- (d) In case:
 - (i) the total aggregate capacity of eligible applications for a particular sub-station is less than / equal to capacity notified for connectivity, Letter of Award (“**LoA**”) will be awarded by the Relevant Agency for procurement of renewable power at pre-fixed levelised tariff; and
 - (ii) the eligible applications are more than the capacity notified for connectivity, a bidding process shall be adopted by the Relevant Agency.

- (e) RPG will be responsible for laying and maintaining of dedicated 11 kV line from REPP to sub-station, construction of bay and related switchgear. The Relevant Agency shall facilitate in getting right of way for laying of 11kV line. The RPG has the option of getting the 11 kV line constructed through the DISCOMs by paying applicable costs and charges.
- (f) Within 2 (two) months of the date of issue of LoA, the Power Purchase Agreement (“PPA”) shall be executed by the RPG. It shall be for a period of 25 (twenty five) years. The RPG is required to achieve a minimum Capacity Utilization Factor (“CUF”) of 15% on annual basis.

ALP Note: Please note from our review of the data available in the public domain and review of the technical studies conducted by experts, we understand that the life of a solar panel / solar PV cells is anywhere from a period of 25 years to 30 years. In view thereof, the PPA term may have been linked to the life of the solar panel / solar PV cells³.

(g) **Other Criteria to be followed by RPGs**

Sr. No.	Particulars
1.	Compliance with prevailing specifications and quality control orders applicable for solar modules, inverters, Balance of Systems (“BoS”), and other equipment issued by the Ministry of New and Renewable Energy (“MNRE”) and the Bureau of Indian Standards (“BIS”).
2.	In case the REPP is being developed by a developer/s, the net-worth of the developer should not be less than 1 crores per MW of capacity applied by it to be developed. ALP Note: the net-worth requirement shall not be applicable to individual farmers; or (ii) group of farmer; or (iii) cooperatives; (iv) panchayats; (v) FPOs; (vi) WUAs setting up REPPs on their own land.
3.	RPG shall provide the following Bank Guarantees (“BG”) to the Relevant Agency: 1. Earnest Money Deposit (“EMD”) of Rs. 1 Lakh/MW along with EOI; and 2. Performance Bank Guarantee (“PBG”) of Rs. 5 Lakh/MW from the date of issue of LoA. BG’s against EMD shall be returned to the selected RPG on submission of valid PBG’s. The PBG’s shall be valid for a period of 12 (twelve) months from the date of issuance of LoA for the REPP.
4.	RPGs will be required to obtain clearances notified by State Governments / other local bodies for setting up REPP.

- (h) The RPG shall commission the solar power plant within 12 (twelve) months from date of issuance of LoA. In addition it is important to note that on account of challenges faced due to the COVID – 19 pandemic, the Ministry has granted a further extension of 7.5 months to all existing Renewable Energy Projects⁴.
- (i) Shortfall in performance shall make RPG liable to pay the compensation as provided in the PPA. This compensation may be relaxed in case the grid is not available for evacuation of power.
- (j) Commercial Operation Date (“**COD**”) shall be the actual date of commissioning of solar power plant as declared by the Commissioning Committee.
- (k) DISCOM would be eligible to get Release of Procurement Based Incentive (“**PBI**”) @ Rs. 0.40 per unit or Rs. 6.6 Lakh per MW of capacity installed, whichever is less, for a period of 5 (five) years from COD.

³ <https://cercind.gov.in/2011/Whats-New/PERFORMANCE%20OF%20SOLAR%20POWER%20PLANTS.pdf>

⁴ Office Memorandum dated August 27, 2021 (https://mnre.gov.in/img/documents/uploads/file_f-1630387036412.pdf) issued by the Ministry of New and Renewable Energy.

(I) Stakeholders and their Roles & Responsibilities

1. **MNRE:** MNRE shall allocate initial capacity of 1000 MW for pilot project to DISCOMs. MNRE will also provide PBI to the DISCOMs @ 40 paise/kWH or Rs. 6.6 lakhs/MW/year. The PBI will be for a period of 5 (five) years from the COD.
2. **DISCOMs:** They have to send their demand for sanction along with the details to implement Component A of the PM Kusum Scheme. They are to declare the renewable power capacity, select the RPG, issue LoAs and sign the PPA. They are also required to provide connectivity at the sub-station and ensure “must-run” status to the plants installed under the PM Kusum Scheme. If an RPG has taken the land on lease from farmers / farmer group for an AgriPV project, the amount of monthly lease rent would be paid by the DISCOMs to the lessor directly in his/her/its bank account and the same will be deducted from the monthly payment due and payable by the DISCOMs to the relevant RPG.
3. **State Nodal Agency (“SNA”):** SNA will assist the farmers in project development activities. They are responsible for ensuring publicity of the PM Kusum Scheme, creating awareness, and monitoring the implementation.

PART II

Part II of this Report examines the process and steps necessary to develop AgriPV project as per laws, rules, regulations and policies pertaining to the Identified States as well as response to queries raised by IGEF in this respect.

B. Constitution of India – Powers of the Central Government and the State Governments

The Constitution of India (“**Constitution**”) defines the powers of the Central Government and the State Governments. Article 246 of the Constitution explicitly provides that the Legislature of any State has exclusive power to make laws for such State or any part thereof with respect to any of the matters enumerated in **List II in the Seventh Schedule (“State List”)** which *inter alia* includes “18. Land, that is to say, rights in or over land, land tenures including the relation of landlord and tenant, and the collection of rents, transfer and alienation of agricultural land; land improvement and agricultural loans; colonization.”

In view of the above, the State has exclusive powers to draw-up / adopt laws, regulations and policies in relation to Land.

C. Analysis pertaining to the Identified States i.e., Uttar Pradesh, Haryana and Punjab

Uttar Pradesh

(a) **Relevant Legislations, Policies, Rules & Regulations:** For the purposes of our analysis and providing our responses, we have analyzed the following legislations, policies, rules and regulations:

- The Uttar Pradesh Agricultural Credit Act, 1973;
- The Electricity Act, 2003;
- The Uttar Pradesh Revenue Code, 2006;
- The Uttar Pradesh Revenue Code (Amendment) Act, 2019⁵;
- Uttar Pradesh Solar Policy, 2017;
- The PM Kusum Scheme; and
- Foreign Exchange Management Act, 1999 and the Foreign Direct Investment Policy, 2020

(b) **Uttar Pradesh New and Renewable Energy Development Agency (“UPNEDA”)**

- In Uttar Pradesh, the Uttar Pradesh New and Renewable Energy Development Agency (“**UPNEDA**”) acting through the Director is the designated State Nodal Agency for promoting and developing renewable energy sources in the State.
- It is pertinent to mention that UPNEDA is also the nominated nodal agency for implementation of Component A under the PM Kusum Scheme and invites bids for setting up Grid Connected Solar Power Plants of 0.5 MW / 1.0 MW / 1.5 MW / 2 MW (AC) capacity primarily on barren land / uncultivable land / pasturelands / marshlands owned by individual farmers preferably located within 5 km radius of the identified 33/11 kV sub-stations for maximum capacity mentioned herein under Request for Selection⁶ (“**RFS**”) of Solar Power Generators (“**SPGs**”) hereto.
- For the purposes of participating in the bidding process, the RPG shall be required to provide the instructions and information as per the RFS of SPGs issued by the UPNEDA from time to time. For reference, list of Instructions and information issued on May 10, 2021 under the PM Kusum Scheme have been summarized herein under Schedule I hereto (“**UP Summary of Instructions & Information**”).

(c) **The Uttar Pradesh Revenue Code (Amendment) Act, 2019 (“UP Revenue Code Amendment”)**

In addition to the above, The Uttar Pradesh Revenue Code (Amendment) Act, 2019 (“**UP Revenue Code Amendment**”) provides that a solar project may be constructed and developed on parcel of land categorised as ‘Agricultural Land’ in case:⁷

- (a) A bhumidar (landowner) with transferable rights is desirous of using his land for purposes other than agricultural purposes, shall make an application to the Sub-Divisional Officer who after the inquiry in the prescribed format may make a declaration stating that the land is NOT being used for agricultural purpose and identify the purpose which it is being utilized. The said declaration shall not amount to ‘Change in Land Use’ and shall at all times be treated as agricultural land.
- (b) It may be relevant to mention that the Sub-Divisional Officer may accept or reject the application in his / her sole discretion within 45 (forty-five) days from the date of the application.
- (c) It is also pertinent to mention that in case the bhumidar (landowner) fails to start the proposed non-agricultural activity within 5 (five) years from the date of the declaration, the same shall lapse.⁸
- (d) Agricultural land owned by a bhumidar (landowner) may be leased by him / her to any person *inter alia* including a firm, company, partnership firm, limited liability partnership etc. by a private leasing arrangement for the purposes of undertaking construction, development and installation of solar plant on it.

⁵ Please note that there have been subsequent amendments to The Uttar Pradesh Revenue Code, 2006, however, given that there is no impact on the queries raised, we have not dealt with the same here.

⁶ http://upneda.org.in/UploadedFiles/TenderDirectory/NKFinal_RfP_KUSUM_for_uploading.pdf

⁷ Section 80 of the UP Revenue Code Amendment

⁸ Section 94 of the UP Revenue Code

- (e) That, the UP Revenue Code, 2006 further provides that the term of lease of land (entire / part) which is leased by a bhumidar (landowner) to any person for undertaking construction and development of solar projects shall be for a maximum period of 30 (thirty) years.
- (f) Section 90 of the UP Revenue Code, 2006, mandates that no person, other than an Indian national, shall acquire any land, directly or indirectly, without prior written approval of the State Government.

ALP Note: The term of the PPA under the PM Kusum Scheme is 25 (twenty five years). Thus, a buffer of 5 (five) years has been provided under the UP Revenue Code, 2006.

(d) Foreign Exchange Management Act, 1999 (“FEMA”) and the Foreign Direct Investment Policy 2020 (“FDI Policy”)

Please note in terms of FEMA, a person resident outside India, may hold an immovable property in India only when such person was a resident of India or in case such person inherited the property from a person who was resident in India. FEMA read with Foreign Exchange Management (Acquisition and Transfer of Immovable Property in India) Regulations, 2018 clarifies that a person resident outside India or an overseas citizen cannot acquire an agricultural land in India.

In addition to the above, the FDI Policy, issued by the Department for Promotion of Industry and Internal Trade, Ministry of Commerce & Industry which regulates foreign investments in India provides for restriction on person resident outside India from investing into any entity that is involved in the agricultural sector/activity.

In view of the above, it is pertinent to mention that investments / acquisition by persons / entities which are not persons resident in India, in agricultural land, is restricted.

ALP Note: As stated above, ‘Land’ is a State subject and the relevant State Governments have exclusive powers to draw-up / adopt laws, regulations and policies in relation to ‘Land’. It is pertinent to mention that the while the laws, regulations and polices drawn-up by the relevant State Government targeting establishment of renewable and more specifically solar power projects enable solar projects to be established on agricultural land without conversion of land use (“CLU”), however, restrictions (such as those under the section 90 of the U.P Revenue Code) read with the restrictions under FEMA and its Regulations are restrictive and may even be in contradiction of the State specific guidelines. By way of illustration, in case of farmer desiring to lease land to a private developer for an AgriPV project, it is likely that the private developer (either having existing foreign investment or desirous of raising offshore funds) may require CLU even though the state specific solar energy policy does not have a specific requirement for CLU.

(e) IGEF Queries and ALP Responses with respect to Uttar Pradesh:

We have separately dealt with each query by IGEF under the Terms of Reference (“**TOR**”) and provided herein under our responses. For ease of reference and understanding, while providing our responses, we have *ad verbatim* reproduced the queries raised by IGEF:

QUERY 1: List the legal requirements of permits/ licenses to establish a multi-MW (1 to 10 MW) size solar project in Uttar Pradesh, Punjab and Haryana on agricultural land.

ALP Response:

The regulatory and policy framework for AgriPV solar project sector in India is largely derived from the PM Kusum Scheme (which scheme has been drawn up from the existing solar policies) as applied and adopted by various states. It may be noted that as on date PM Kusum Scheme as part of Component A (discussed above) envisages and provides for only Grid Connected Solar Power Plants of up to 2 MW (AC) capacity. The state of Uttar Pradesh has adopted and applied the PM Kusum Scheme to AgriPV projects within the state.

From a perusal of the PM Kusum Scheme read with policies / state legislations in relation to solar power generation, our findings is that the permits under PM Kusum Scheme for AgriPV projects overlap the permits required for setting up a multi-MW size solar project. Therefore, to the extent that the PM Kusum Scheme does not specifically provide for projects other than the grid connected Solar Power Plants beyond 2 MW capacity, the same may be set up as commercial or hybrid projects by placing reliance upon the existing solar policies within the state, even though there is no specific mention or carve out for AgriPV projects currently.

We have provided herein under the indicative list of approvals that will be required for establishing a multi-level size Solar Project / the AgriPV project in Uttar Pradesh.

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Uttar Pradesh
1.	Environmental Clearance Environment Protection Act, 1986.	Ministry of Environment, Forests & Climate Change ("MoEF&CC"), New Delhi	<p>It may be noted that Schedule I of the MoEF&CC EIA Notification 2006 lists the projects / activities for which prior environmental clearance will be required.</p> <p>Given that solar projects and / or AgriPV projects are not listed in Schedule I of the MoEF&CC EIA Notification 2006, therefore no environmental clearance will be required for undertaking installation of solar projects and / or AgriPV⁹.</p> <p>Additionally, MoEF&CC has issued a draft notification in March 2020¹⁰ that exempts Solar Photo Voltaic Power Projects from obtaining environmental clearances. This notification has yet to come in force.</p>	Exempted – Please refer to our incentive list under Query 5

9 Office Memorandum dated 13th May 2011

10 http://environmentclearance.nic.in/writereaddata/Draft_EIA_2020.pdf

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Uttar Pradesh
2.	Forest Clearance The Forest (Conservation) Act, 1980	MoEF&CC and State Forest Department	<p>Section 2 of The Forest (Conservation) Act, 1980 read with Rule 6 of the Forest Conservation Rules, 2003 provides that a forest clearance certificate is required to be obtained in case forest land is being used for non-forest purposes. It is pertinent to mention that The Forest (Conservation) Act, 1980 or the Indian Forest Act, 1927 does not provide for the meaning or definition of the term 'Forest' or 'Forest Land' and the meaning of the same is dealt with under the judgement rendered by the Hon'ble Supreme Court of India in T.N. Godavarman Thirumulkpad v. Union of India (AIR1997SC1228)¹¹ date December 12, 1996 which provides that:</p> <p><i>“the word ‘forest’ must be understood according to its dictionary meaning. This description covers all statutorily recognized forests, whether designated as reserved, protected or otherwise for the purpose of Section 2 (i) of the Forest Conservation Act. The term ‘forest land’, occurring in Section 2, will not only include “forest” as understood in the dictionary sense, but also any area recorded as forest in the Government record irrespective of the ownership.”</i></p> <p>The requirement for obtaining a forest clearance will depend on the location where the Solar Project / AgriPV Project is proposed to be installed.</p>	Exempted – Unless Land is Forest Land
3.	Wildlife Clearance Wildlife (Protection) Act, 1972.	MoEF&CC	<p>Wildlife clearance will only be required in case the Solar Project / AgriPV Project which is proposed to be constructed lies within an Ecologically Sensitive Area and is not located within 10 km of any National Park/ Wildlife Sanctuary.</p> <p>Further, in case the location of the Solar Project / AgriPV project does not contravene any international biodiversity or ecosystem conservation conventions, wildlife clearances will not be required.</p>	Exempted unless falling within the ecological area

11 <https://main.sci.gov.in/judgment/judis/14617.pdf>

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Uttar Pradesh
6.	Accreditation by State Agency - Uttar Pradesh Electricity Regulatory Commission (Promotion of Green Energy through Renewable Purchase Obligation) Regulations, 2010	Uttar Pradesh New & Renewable Energy Development Agency (UPNEDA)	RPG shall be required to obtain an accreditation certificate as per Annexure- I of the notification issued by Central Electricity Regulatory Commission dated November 5, 2015.	Applicable
7.	Registration of Solar Power Plant by Central Agency	Ministry of Power, Central Electricity Authority (CEA)	RPG shall obtain a registration certificate as per Annexure-II of the Notification issued by Central Electricity Regulatory Commission Dated November 5, 2015. As per the notification dated April 13, 2018 ¹⁷ issued by the Ministry of Power all electricity generating units producing 0.5 MW or more will have to register themselves with the Central Electricity Authority and obtain a unique registration number.	Applicable
8.	Letter of Award	UPNEDA	As per Page 9 of RFS issued by Uttar Pradesh under PM Kusum Scheme. ¹⁸ An RPG shall obtain a Letter of Award from the designated authority for showing that the project has been awarded to the RPG.	Applicable
9.	Approval of Electrical Drawings - Before the commencement of Renewable Solar Power Plant the RPG shall obtain approval of electrical drawings.	Uttar Pradesh Electrical Inspectorate	The Directorate of Electrical Safety, Uttar Pradesh provides that the electrical drawings for the solar power plant shall be as per the Drawing schedule provided by the Directorate of Electrical Safety. Additionally, such drawing schedule shall be approved by the Uttar Pradesh Electrical Inspectorate as per the guideline provided for under Regulation 43 of the Central Electricity Authority (Measures Relating to safety and electrical Supply) Regulations, 2010.	Applicable

17 https://cea.nic.in/wp-content/uploads/2020/04/registration_units.pdf

18 http://upneda.org.in/UploadedFiles/TenderDirectory/NKFinal_RFP_KUSUM_for_uploading.pdf

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Uttar Pradesh
10.	Approvals for Transmission line - Before the commencement of REPP, the RPG shall obtain approval for laying down the transmission line which will transfer the power from the power plant to the sub-station.	Uttar Pradesh Power Corporation Limited, Lucknow. Approval of Chief Electrical Inspector to Govt. (CEIG), Uttar Pradesh Electrical Inspectorate	A notice approving the transmission line under Section 164 of the Electricity Act, 2003 ¹⁹ as issued by the respective State Government read with CEA (Technical standards for Construction of Electrical Plants and Electrical Lines) Regulations, 2010 ²⁰ shall be published the said approval.	Applicable
11.	Approval of Evacuation Scheme - The RPG shall obtain an approval for evacuation of power from the respective authority.	State DISCOM (Uttar Pradesh Power Corporation Limited)	As per schedule 8 of the Request for Selection (UP Tender) dated May 10, 2021 under PM Kusum Scheme DISCOM shall give approval for evacuation of power from the solar plant.	Applicable
12.	Certificate for commissioning of Solar Power Plant at Project Site – RPG shall obtain a certificate of commissioning at the project site and a certificate of commissioning of Solar Power Plant by the Nodal Agency.	UPNEDA	As per Schedule 8 the UP Tender dated May 20, 2021 issued under PM Kusum Scheme the RPG shall obtain a commissioning certificate from the respective authority.	Applicable
13.	Import Duty on Plant equipment	Ministry of New & Renewable Energy	As per Government Notification (No. 283/3/2018) ²¹ dated March 09, 2021 under the First Schedule to the Customs Tariff Act, 1975 a basic customs duty on solar PV cells and modules / panels shall be imposed however, such duty shall be imposed from April 1, 2022.	Exempted - until April 1, 2022 please refer our Incentive list under Query 5

19 <https://cercind.gov.in/Act-with-amendment.pdf>

20 https://cea.nic.in/wp-content/uploads/2020/02/tech_std_reg.pdf

21 https://mnre.gov.in/img/documents/uploads/file_f-1615355045648.PDF

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Uttar Pradesh
14.	NOC from Panchayat	Panchayati Raj Department, Uttar Pradesh	As per Section 4 of The Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996 ²² the Gram Sabha shall approve plans, programmes and projects for social and economic development before such plans, programmes and projects are taken up for implementation by the Panchayat at the village level.	Applicable
15.	NOC from Aviation Ministry	Ministry of Power or Ministry of New and Renewable Energy, as the case may be.	As per the Notification (GSR 751 (E) dated February 13, 2014 ²³ issued by Ministry of Defence for the purpose of setting up of solar plant an NOC from the aviation ministry shall be obtained.	Applicable

ALP Comment: While we have provided herein under the approvals that will be required, given that the law in relation to renewable energy is evolving, the same will have to be revisited at the time of installation of the Solar Project / the AgriPV project.

²² <https://legislative.gov.in/sites/default/files/A1996-40.pdf>

²³ https://ncog.gov.in/Mod_Noc/power/General_Guidelines%20_Power%20Projects.pdf

QUERY 2: List the barriers for an AgriPV project to be installed on agricultural land for additional large-scale solar generation, co-located with agriculture. Analyse the possibility for a new, commercial or hybrid category for an AgriPV project, so that power generated from it may either be used by farmer himself or sold through government utility, through PPA.

ALP Response:

(i) At the outset, we wish to state that in terms of the PM Kusum Scheme as applicable and applied by Uttar Pradesh to AgriPV projects, as on date, **only Grid Connected Solar Power Plants of 0.5 MW / 1.0 MW / 1.5 MW / 2 MW (AC) capacity** primarily on barren land / uncultivable land / pasturelands / marshlands owned by RPGs preferably located within 5 km radius of the identified 33/11 kV UP Sub-stations list are permitted to be developed. To this extent, the ambit of the policy in itself is restrictive insofar as it does not provide for private, commercial or hybrid projects or projects beyond capacity of 2 MW.

(ii) In our view, the barriers for an AgriPV project installed on agricultural land are detailed as under:

1.	Pilot Mode & Capacity Restriction	Most projects under the AgriPV sector are being undertaken on pilot basis. Further, it appears that till date, REPP in respect of 33/11KVA alone have been undertaken.
2.	PM Kusum Policy is restrictive	As on date, the PM Kusum Scheme is only applicable to Grid Connected Solar Power Plants of 0.5 MW / 1.0 MW / 1.5 MW / 2 MW (AC) capacity thereby deterring stakeholders (interested developers) from participating and undertaking AgriPV projects on a large scale.
3.	No targeted legislations specifically governing the AgriPV Sector	As on date, other than the PM Kusum Scheme, there are no legislations / policies / rules / regulations governing the AgriPV sector leaving lacunae in the framework governing the sector.
4.	Existing regulations are onerous and complex	The stakeholders specifically farmers for whose benefit the PM Kusum Scheme has been introduced may not be like sophisticated corporations and may be overwhelmed by the existing onerous and complex framework for undertaking the AgriPV projects. The processes and procedures involved in undertaking an AgriPV project may lead these stakeholders to be misguided by middlemen, touts etc. Simpler and straightforward regime that is easy to navigate is required to make the proposition viable and attractive for farmers.
5.	Pre-requisites in relation to location of AgriPV projects	In terms of the PM Kusum Scheme, AgriPV projects are permitted to be installed within 5 (five) km radius of the sub-stations in order to avoid high cost of sub-transmission lines and to reduce transmission losses. The requirements above act as a deterrent to the expansion of the AgriPV on a large scale.
6.	High Capital Costs	The most obvious barrier for an AgriPV project is the high cost and expenses involved in building and installation of solar farms. Financial viability and profits should be identifiable and significant for the farmers to buy-in to the project.
7.	Lack of infrastructure, expertise and policy	The lack of infrastructure, expertise and policy in the AgriPV sector makes it challenging undertaking.
8.	Fixed Tariffs	The tenders floated by the State Governments provides for fixed tariff rates which are low and may not be profitable.
9.	Clearances	While policies provide for a single window clearance system, a number of approvals as required for undertaking an AgriPV project, however, in practice, RPGs may be required to approach other Government authorities including the CERC (as defined herein under) for certain approvals.
10.	Lack of Incentives to RPGs	Given the high capital costs and lack of incentives to RPGs (by the Central / State Governments), stakeholders are not keen enough to undertake building and installation of AgriPV projects. In addition the Government Notification (No. 283/3/2018) ²⁴ dated March 09, 2021 under the First Schedule to the Customs Tariff Act, 1975 provides that a basic customs duty on solar PV cells and modules / panels shall be imposed with effect from April 1, 2022.

(iii) As stated herein above, in case a stakeholder is desirous of setting up a new commercial or hybrid category AgriPV project, he / she / it may do so in terms of the UP Revenue Code Amendment read with the Uttar Pradesh Solar Policy, 2017. It is important to mention that for the purposes of undertaking a new commercial or hybrid category AgriPV project, the relevant stakeholder will be required to obtain approvals as detailed herein under our response to Query 1.

QUERY 3: List potential practices or avenues to obtain a construction permit on agricultural land under present legal framework and authorities to be contacted. The possible avenues/offices of redressal for obtaining permit/permission for an AgriPV project in each state.

ALP Response:

- (i) Given that establishment of an AgriPV project involves ground / stilt mounted grid connected solar based power panels and no actual construction is required, in our view no construction permits are required for the purposes of undertaking an AgriPV project on agricultural land.
- (ii) It may however be noted that in the State of Uttar Pradesh, the stakeholder interested in undertaking construction, development, installation and commencement of AgriPV projects shall be required to provide to the Director, UPNEDA, *inter alia* the particulars of the AgriPV project, location where the AgriPV Plant is situated, and obtain a certificate of accreditation from the UPNEDA and the Central Electricity Regulatory Commission (“CERC”) prior to for the commencement of AgriPV project.

QUERY 4: Does legislation in place permit farmers to take credit against agricultural land as collateral? If yes, is it actually happening? Any barriers that the farmers face? Are banks able to seize the collateral in case of default?

ALP Response:

- (i) The Uttar Pradesh Agricultural Credit Act, 1973 (“**1973 Credit Act**”) which extends to the whole of Uttar Pradesh, was formulated to make provisions to facilitate adequate flow of credit for agricultural production and development through banks and other institutional credit agencies.²⁵²⁶
- (ii) In terms of the 1973 Credit Act, agricultural land owners shall be free to avail credit facilities from banks and / or other financial institutions and create charge / mortgage on their agricultural land in favour of the said lenders. In addition to charge on agricultural land, agricultural land owners are free to create charge on crop and other movable property in favor of the lenders. It may however be noted that in case the agriculturalist have availed credit from bank and / or other financial institutions, he / she / it shall be required to obtain a prior permissions of the bank and / or other financial institutions to lease / create tenancy on the said land. Any lease / tenancy created in contravention shall be void²⁷²⁸²⁹.
- (iii) In addition to the above, the 1973 Credit Act explicitly provides that for the purposes of recovery of dues payable by the agricultural land owners, lender/(s) shall be free to enforce or invoke the security created in its favour and take appropriate measures including acquisition / sale of the security property through court / private treaty arrangement / tehsildar etc.
- (iv) Yes, we confirm that farmers in Uttar Pradesh avail credit against agricultural land as collateral. It may however, be pertinent to mention that given that farms and farmers are located in rural areas in India, they may opt for and avail credit from private lenders in and around the area than from banks and / or financial institutions. Additionally, it may be noted that the circle rates i.e. the benchmark rate designated by state government for sale and purchase of agricultural land is lesser than other categories of land. Also, given the locational disadvantage, lack of awareness of benchmark for valuation, at the time of providing agricultural land as security, the valuation of the agricultural land may be a challenge.

25 Section 3, Section 4 and Section 6 of the 1973 Credit Act.

26 Section 10 of the 1973 Credit Act.

27 Section 10-A, Section 10-B, Section 11, Section 11-A, Section 12-A of the 1973 Credit Act.

28 To be updated post discussions with UPNEDA

29 <https://www.peda.gov.in/assets/media/regardinguploadingofdocumentsonpedaswebsite.zip>

QUERY 5: Financial implications for the solar project developer / owner as well as for the farmer. Please also highlight any tax implication on farmer/developer for establishing AgriPV power plant on the land of farmer. Whether developer and/or farmer may continue to have access to bank loans for their respective businesses i.e. AgriPV solar farms and agriculture respectively. Whether benefits/subsidies/minimum support price for farming may continue, even if agricultural land is also used for AgriPV power plant?

ALP Response:

- (i) Please note that in terms of (Indian) Income Tax Act, 1961 (“1961 Act”), agricultural income is exempted from the payment of income tax. In view of extant Indian laws, an AgriPV project may be undertaken potentially in the following structures:

Sr. No.	Business Structures	Tax Implications
1.	Pure Leasing Model – Where the entire land parcel is leased by the farmer to the developer and farmer receives only lease rent.	<ul style="list-style-type: none"> The farmer will be required to bear income tax on the amount of lease generated from the land parcel; Given the income generated from agriculture shall be that of the developer (also undertaking farming in addition to the solar power generation), the developer can claim exemption on the said agricultural income; For any other income generated by the developer, the developer shall be required to bear income tax on the same. <p>ALP Note: It is pertinent to mention that the developer shall be eligible to claim exemption on income tax from agricultural activity provided that the revenue records are updated to reflect the developer as the lessee.</p>
2.	Leasing for construction of Solar Panel – Where the land parcel is leased solely for construction of Solar Panels with an explicit understanding that the farmer shall receive lease rent from the Developer and shall continue to undertake farming and derive agricultural income. The developer shall, in view of the construction and operation of Solar Panels on the farmers land be eligible to receive income generated from sale of energy generated therefrom.	<ul style="list-style-type: none"> The farmer will be required to bear income tax on the amount of lease rent generated from the land parcel; Farmer can claim exemption from income tax on agricultural income component if otherwise eligible for exemption under the Income Tax Act, 1961; For income arising from solar power generation, as earned by the developer, the developer shall be required to bear income tax on the same.
3.	Revenue Sharing Model – Where the developer and the farmer collaborate and agree on revenue sharing model as per the agreement between the parties (farming income and monies generated from sale to DISCOMs).	<ul style="list-style-type: none"> Agricultural income generated under this model will be exempt from payment of income tax; For income arising from energy generation, the developer and the farmer will be required to bear income tax on their respective shares.

Sr. No.	Business Structures	Tax Implications
4.	<p><u>Collaboration Model</u> –</p> <p><u>Model A</u> – Where farmers form a cooperative undertake an AgriPV project</p> <p><u>Model B</u> – Where farmers form a cooperative and collaborate with a developer to undertake an AgriPV project</p>	<p>- In this model, the agricultural income of each farmer will be exempt from payment of income tax;</p> <p>- For other income generated by the each farmer, such farmer will be required to bear income tax on the same.</p> <p>- In this model, the agricultural income of each farmer and / or developer as per the agreement between the parties will be exempt from payment of income tax;</p> <p>- For other income generated by the each farmer and / or the developer, such farmer and/or developer will be required to bear income tax on the same.</p> <p><u>ALP Note:</u> It is pertinent to mention that the developer shall be eligible to claim exemption on the agricultural income provided revenue records are updated to reflect the developer as the lessee.</p>

- (ii) Please be advised that there may be other business models that the farmer and / or the developer may discuss and agree to in such case, tax implications will have to be assessed. However, we can confirm that ‘Agricultural Income’ whether that of the farmer and / or the developer shall be exempt from payment of the income tax.
- (iii) Yes, we confirm that the developer and/or farmer can continue to have access to bank loans for their respective businesses i.e. AgriPV solar farms and agriculture respectively.
- (iv) Yes, in view of initiation of an AgriPV project there is no impact on the benefits/subsidies/minimum support price for farming and the same will continue unhindered provided farming activity continues to be undertaken substantially on the land.
- (v) In addition to the above, other than the exemption mentioned herein above, it is also pertinent to mention and note the following exemptions under the Income Tax Act, 1961 and the Uttar Pradesh Solar Policy, 2017 (“UP Solar Policy”):

POLICY / ACT	INCENTIVES
Income Tax Act, 1961 (Appendix 1, Rule 5, Part-A, Tangible Assets III.8.XIII.(i) and (k))	As per the prevailing income-tax laws, 40% depreciation on Written-Down Value (“WDV”) is permitted on year on year basis. In addition, additional depreciation @ 20% shall also be allowed in first year.
UP Solar Policy	<ul style="list-style-type: none"> • For grid connectivity of solar projects of capacity 5 MW and above, State governments will bear the cost for construction of maximum transmission line length as follows: <ul style="list-style-type: none"> – For 05 to 10 MW- 10 Kilometer – For >10 MW to 50 MW – 15 Kilometer – For > 50 MW capacity – 20 Kilometer <p>All remaining costs and expenses in relation to the cost for construction of transmission line, bay and substation that is in addition to the criteria’s mentioned herein above shall have to be borne by the developer. This incentive will be available only in case of construction of transmission line, bay by State Transmission Utility/ Electricity Distribution company.</p> <ul style="list-style-type: none"> • In case of developer wanting to sell power to a third party or for 100% captive use or part captive use and selling part generation to third party or Electricity Distribution Company, the developer shall receive an exemption of 50% on wheeling charges/transmission charges on Intrastate sale of power to third party or in case of captive use. This exemption shall be applicable as per Uttar Pradesh Electricity Regulatory Commission regulations. Additionally, since Uttar Pradesh is a power importing state, cross subsidy surcharge and wheeling charges/ transmission charges will be exempted 100% for intrastate transmission system on Interstate sale of solar power. • MNRE has allowed exemption in excise duty and concession in customs duty to project developer. • Solar power plants set up for generation of electricity from Solar Energy will be accorded the status of “Industry” for the following special purpose: <ul style="list-style-type: none"> – No objection to be provided at the level of commissioner on purchase of land more than 5.085 hectares under the land ceiling by Project developer in the interest of public to set up Solar Power Plants for generation of electricity. – 100% exemption on chargeable stamp duty on setting up Solar Energy units in entire State of Uttar Pradesh. – Exemption from electricity duty for 10 years. – Solar PV projects shall be exempted from obtaining environmental clearance.

QUERY 6: Research any legal basis or legal aspects for states to consider the introduction of a new type of land category recognizing AgriPV (apart from KUSUM component A, any experience in the state assuring construction permit for AgriPV projects as well as all benefits associated with farming on agricultural land).

ALP Response:

- (i) The Ministry of Statistics and Programme Implementation, Government of India has provided for a nine-fold classification of land use, details of which has been briefly provided herein under and detailed under **Schedule IV** hereto (“**Nine-Fold Land Use Classification**”):
1. Forests;
 2. Area under Non-agricultural Uses;
 3. Barren and Un-culturable Land;
 4. Permanent Pastures and other Grazing Lands;
 5. Land under Miscellaneous Tree Crops, etc;
 6. Culturable Waste Land;
 7. Fallow Lands other than Current Fallows;
 8. Current Fallows; and
 9. Net area Sown.
- (ii) As mentioned herein above in this Report, Land being a State subject, the State is exclusively empowered to introduce by way of gazette notifications and formulate policies to introduce new category / sub-category in the already existing categories. In this regard, discussions will have to be initiated with different state governments to apprise them of the sector and the requirement for introduction of a new type of land category. We understand that stakeholders have in the past engaged with state governments for specific clarifications in respect of a sector/ activity or sub category thereof.

QUERY 7: Recommendations to accelerate construction permits for AgriPV projects in each state on agricultural land³⁰.

- (i) In our view, while no construction permits are required, the purposes of acceleration of the requirements and certificates as detailed under our response under Query 3 above, we recommend liaising with UPNEDA and CERC prior to filing the required documents to understand the requirements and duly comply with the same and avoid any delays as a result of shortcomings and ensure issuance of the certificate of accreditation in a timely manner.
- (ii) Other than recommendations in relation to acceleration to construction permits requested under this Query 7, we have provided herein under some additional recommendations for the AgriPV sector:

Single Window Clearance	For the purposes of undertaking an AgriPV project, a single window clearance system should be constituted wherein all applications for undertaking such project be submitted to a state specified nodal agency and the said agency assists in obtaining all necessary approvals.
Incentives	<p>The AgriPV sector may be considered/notified as separate land category;</p> <p>Encourage farmers to undertake AgriPV directly by providing bank financing on reduced rates of interest;</p> <p>Waiver of import duty on solar PV cells and modules / panels for the AgriPV Sector beyond April 1, 2022;</p> <p>Waiver / reduction of tax rates including Goods and Service Tax for the AgriPV Sector.</p>

Punjab

(a) Relevant Legislations, Policies, Rules & Regulations: For the purposes of our analysis and providing our responses, we have analyzed the following legislations, policies, rules and regulations:

- The Punjab Agricultural Credit Operations and Miscellaneous Provisions (Banks) Act, 1978;
- The Electricity Act, 2003;
- Punjab Tenancy Act, 1887;
- Punjab Security of Land Tenancy Act, 1953;
- Punjab Land Reforms, 1972;
- Punjab Land Leasing and Tenancy Bill, 2019;
- New and Renewable Sources of Energy Policy, 2012;
- New and Renewable Sources of Energy Amendment, 2015;
- Draft New and Renewable Sources of Energy Policy, 2019;
- The PM Kusum Scheme;
- Gram Panchayat Lands Lease Policy, 2014; and
- Foreign Exchange Management Act, 1999 and the Foreign Direct Investment Policy, 2020

(b) Punjab Energy Development Agency (“PEDA”)

- In Punjab, the Punjab Energy Development Agency (“**PEDA**”) acting through the Director is the designated State Nodal Agency for promoting and developing renewable energy sources in the State.
- It is pertinent to mention that PEDA is also the nominated nodal agency for implementation of **Component A** under the PM Kusum Scheme and invites bids for setting up Grid Connected Solar Power Plants of 0.5 MW / 1.0 MW / 1.5 MW / 2 MW (AC) capacity primarily on barren land / uncultivable land / pasturelands / marshlands owned by individual farmers preferably located within 5 km radius of the identified 33/11 kV sub-stations for maximum capacity mentioned herein under Request for Selection³¹ (“**RFS**”) of Solar Power Generators (“**SPGs**”) hereto.
- For the purposes of participating in the bidding process, the RPG shall be required to provide the instructions and information as per the RFS of SPFs issued by the PEDA under the PM Kusum Scheme which have been summarized herein under **Schedule III** hereto (“**Punjab Summary of Instructions & Information**”).

(c) NRSE Policy

- It is pertinent to mention that in terms of the NRSE Policy, as amended from time to time, the Government of Punjab declared that wherever land belonging to local bodies/panchayats is available for development, the State would encourage the local bodies/panchayats to provide the land for New and Renewable Sources of Energy projects on the terms and conditions specified by the Department of Rural Development & Panchayats/ Department of Local Government of the State of Punjab.

(d) Gram Panchayat Lands Lease Policy issued under the Punjab Village Common Lands (Regulation) Rules, 1964 (“Gram Panchayat Lease Policy applicable to Punjab”)³²

- Please note that in terms of Gram Panchayat Lands Lease Policy applicable to Punjab, a solar project may be constructed and developed on parcel of land categorised as ‘Agricultural Land’ under the control of the Panchayats for a period up to 33 years³³. That, it may be noted that the lease shall be granted by way of open auction by: (i) Concerned Block Development & Panchayat Officer in case the area of land is less than 10 Acres; or (ii) the Concerned District Development & Panchayat Officer in case the area of land is more than 10 Acres³⁴.

³¹ Clause 1 of the Gram Panchayat Lease Policy applicable to Punjab.

³² Clause 4 of the Gram Panchayat Lease Policy applicable to Punjab.

³³ Lands owned by the Village Panchayat.

³⁴ <https://revenue.punjab.gov.in/sites/default/files/The%20Punjab%20Land%20Leasing%20and%20Tenancy%20Bill,%202019.pdf>

- In addition to the above, please note that a Gram Panchayat may lease shamlat land³⁵ to PEDDA / Department of Power who may sub-lease the said land to SPGs. The Punjab Panchayat Rules further provide that the responsibility for payment of lease rent to Gram Panchayat will be that of PEDDA / Department of Power.
 - Additional terms and conditions for lease of land include the following:
 - (a) Shamlat land will be given through open auction only by a panchayat by giving advertisements in 2 (two) leading newspapers, i.e., one in English and one in Punjabi;
 - (b) Concerned Block Development and Panchayat Officer will get the reserve price determined by the district price fixation committee;
 - (c) Yearly increase of 10% of the lease money will be charged on the last year's payable lease amount;
 - (d) The advertisement will be given at least 15 (fifteen) days prior to the date of the auction;
 - (e) The entire process of auction will be video graphed in order to provide transparency;
 - (f) The lease deed has to be registered on a form prescribed by the State Government within a span of 2 (two) months;
 - (g) The lease deed has to be signed by the lessee, the authorised person of the Panchayat, the concerned Panchayat Secretary and the concerned Block Development and Panchayat Officer; and
 - (h) The possession of the shamlat land will be given to the lease holder only after the registration of lease deed.
- (e) **Punjab Tenancy Act, 1887; (ii) Punjab Security of Land Tenancy Act, 1953; and (ii) Punjab Land Reforms, 1972 (hereinafter referred to as the "Punjab Tenancy Legislations")**

Since 'Land' is a state subject, each state has promulgated its respective legislations providing a framework *inter-alia* for leasing of land (agricultural / non-agricultural). The Punjab Tenancy Legislations provide for terms and conditions of leasing / tenancy, relationship between lessee and lessor etc. pertaining to privately owned (non-Gram Panchayat owned land).

(f) **Punjab Land Leasing and Tenancy Bill, 2019 ("2019 Bill")**

- To consolidate the laws relating to lease and tenancy in the State of Punjab, the Punjab Government introduced the 2019 Bill.³⁶³⁷
- The key terms of the 2019 Bill are as under:
 - (i) The maximum period of lease provided in the agreement cannot exceed 15 (fifteen) years at a time;
 - (ii) A written lease agreement will contain name of the lessor, lessee, and share of the lessor in land, pending litigation or default on the part of the lessor, rent with the annual increase, if any.
 - (iii) The lessor has a right to give lease, the land in his possession as owner or as mortgage to anyone on payment on rent;
 - (iv) The 2019 Bill specifically states that an Agreement for Lease can be undertaken by a Company, as a lessee and the lessor. A lease of land shall be accompanied by delivery of possession and will be an instrument registered under the Registration Act, 1908 executed between the lessor and the lessee.

ALP Note: Once the same 2019 Bill is passed into legislation, the following legislations namely: (i) The Punjab Tenancy Act, 1887; (ii) The Punjab Colonization of Government Lands Act, 1912; (iii) The Punjab Occupancy Tenants (Vesting of Proprietary Rights) Act, 1952; (iv) The Punjab Security of Land Tenures Act, 1953; (v) The PEPSU Occupancy Tenants (Vesting of Proprietary Rights) Act, 1954; and (vi) The PEPSU Tenancy and Agriculture Lands Act, 1955 shall stand repealed.

35 Office Memorandum dated 13th May 2011

36 http://environmentclearance.nic.in/writereaddata/Draft_EIA_2020.pdf

37 <https://main.sci.gov.in/judgment/judis/14617.pdf>

(b) Foreign Exchange Management Act, 1999 (“FEMA”) and the Foreign Direct Investment Policy (“FDI Policy”)

Please note in terms of FEMA, a person resident outside India, may hold an immovable property in India only when such person was a resident of India or in case such person inherited the property from a person who was resident in India. FEMA read with Foreign Exchange Management (Acquisition and Transfer of Immoveable Property in India) Regulations, 2018 clarifies that a person resident outside India or an overseas citizen cannot acquire an agricultural land in India.

In addition to the above, the FDI Policy, issued by the Department for Promotion of Industry and Internal Trade, Ministry of Commerce & Industry which regulates foreign investments in India provides for restriction on person resident outside India from investing into any entity that is involved in the agricultural sector/ activity.

In view of the above, it is pertinent to mention that investments / acquisition by persons / entities which are not persons resident in India, in agricultural land, is restricted.

ALP Note: As stated above, ‘Land’ is a State subject and the relevant State Governments have exclusive powers to draw-up / adopt laws, regulations and policies in relation to ‘Land’. It is pertinent to mention that the while the laws, regulations and polices drawn-up by the relevant State Government targeting establishment of renewable and more specifically solar power projects enable solar projects to be established on agricultural land without conversion of land use (“**CLU**”), however, restrictions under FEMA and its Regulations may be in contradiction of the State specific guidelines. By way of illustration, in case of farmer desiring to lease land to a private developer for an AgriPV project, it is likely that the private developer (either having existing foreign investment or desirous of raising offshore funds) may necessarily require CLU even though the state specific solar energy policy does not have a specific requirement for CLU.

(c) IGEF Queries and ALP Responses with respect to Punjab:

We have separately dealt with each query by IGEF under the Terms of Reference (“**TOR**”) and provided herein under our responses. For ease of reference and understanding, while providing our responses, we have *ad verbatim* reproduced the queries raised by IGEF:

QUERY 1: List the legal requirements of permits/ licenses to establish a multi-MW (1 to 10 MW) size solar project in Uttar Pradesh, Punjab and Haryana on agricultural land.

ALP Response:

The regulatory and policy framework for AgriPV solar project sector in India is largely derived from the PM Kusum Scheme (which scheme has been drawn up from the existing solar policies) as applied and adopted by various states. It may be noted that as on date PM Kusum Scheme as part of Component A (discussed above) envisages and provides for only Grid Connected Solar Power Plants of up to 2 MW (AC) capacity. The state of Punjab has adopted and applied the PM Kusum Scheme to AgriPV projects within the state.

From a perusal of the PM Kusum Scheme read with policies / state legislations in relation to solar power generation, our finding is that the permits under PM Kusum Scheme for AgriPV projects overlap the permits required for setting up a multi-MW size solar project. Therefore, to the extent that the PM Kusum Scheme does not specifically provide for projects other than the grid connected Solar Power Plants beyond 2 MW capacity, the same may be set up as commercial or hybrid projects by placing reliance upon the existing solar policies within the state, even though there is no specific mention or carve out for AgriPV projects currently.

We have provided herein under the indicative list of approvals that will be required for establishing a multi-level size Solar Project / the AgriPV project in Punjab.

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Punjab
1.	Environmental Clearance	Ministry of Environment, Forests & Climate Change (“MoEF&CC”), New Delhi	<p>It may be noted that Schedule I of the MoEF&CC EIA Notification 2006 lists the projects / activities for which prior environmental clearance will be required.</p> <p>Given that solar projects and / or AgriPV projects are not listed in Schedule I of the MoEF&CC EIA Notification 2006, therefore no environmental clearance will be required for undertaking installation of solar projects and / or AgriPV³⁸.</p> <p>Additionally, MoEF&CC has issued a draft notification in March 2020³⁹ that exempts Solar Photo Voltaic Power Projects from obtaining environmental clearances. This notification has yet to come in force.</p>	Exempted – Please refer to our incentive list under Query 5
2.	Forest Clearance The Forest (Conservation) Act, 1980	MoEF&CC and State Forest Department	<p>Section 2 of The Forest (Conservation) Act, 1980 read with Rule 6 of the Forest Conservation Rules, 2003 provides that a forest clearance certificate is required to be obtained in case forest land is being used for non-forest purposes. It is pertinent to mention that The Forest (Conservation) Act, 1980 or the Indian Forest Act, 1927 does not provide for the meaning or definition of the term ‘Forest’ or ‘Forest Land’ and the meaning of the same is dealt with under the judgement rendered by the Hon’ble Supreme Court of India in T.N. Godavarman Thirumulkpad v. Union of India (AIR1997SC1228)⁴⁰ date December 12, 1996 which provides that:</p> <p><i>“the word ‘forest’ must be understood according to its dictionary meaning. This description covers all statutorily recognized forests, whether designated as reserved, protected or otherwise for the purpose of Section 2 (i) of the Forest Conservation Act. The term ‘forest land’, occurring in Section 2, will not only include “forest” as understood in the dictionary sense, but also any area recorded as forest in the Government record irrespective of the ownership.”</i></p> <p>The requirement for obtaining a forest clearance will depend on the location where the Solar Project / AgriPV Project is proposed to be installed.</p>	Exempted – Unless Land is Forest Land

38 <https://pib.gov.in/newsite/printrelease.aspx?relid=137373>

39 <https://ppcb.punjab.gov.in/en/consent-management/policy-of-the-board>

40 <https://ppcb.punjab.gov.in/sites/default/files/documents/77.pdf>

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Punjab
3.	Wildlife Clearance Wildlife (Protection) Act, 1972	MoEF&CC	<p>Wildlife clearance will only be required in case the Solar Project / AgriPV Project which is proposed to be constructed lies within an Ecologically Sensitive Area and is not located within 10 km of any National Park/Wildlife Sanctuary.</p> <p>Further, in case the location of the Solar Project / AgriPV project does not contravene any international biodiversity or ecosystem conservation conventions, wildlife clearances will not be required.</p>	Exempted <i>unless falling within the ecological area</i>
4.	Consent to Establish / Operate Air (Prevention and Control of Pollution) Act, 1981. Water (Prevention and Control of Pollution) Act, 1974	Punjab Pollution Control Board (PPCB)	<p>The Ministry of Environment, Forest and Climate Change <i>vide</i> its notification dated March 5, 2016⁴¹ has exempted the category of white industries from obtaining Environment Clearance.</p> <p>PPCB has put Solar Power Generation⁴² through Solar Photovoltaic Plants producing less than 5MW power⁴³, in the exempted category from the consent management system which is an online platform for obtaining and managing consent and the Central Pollution Control Board <i>vide</i> its clarification dated January 18, 2017⁴⁴ has exempted white category industries from obtaining consent from respective State Pollution Control Boards to Establish / obtain consent to operate for Renewable solar powers plants of capacity less than 25MW.</p> <p>It may be noted that in terms of the notification dated March 5, 2016, industries forming part of the White Category will not be required to obtain the “Consent to Operate” and will only be required to make an intimation to concerned State Pollution Control Board i.e. to the PPCB in re installation of a Solar Power / AgriPV Plan should suffice.</p>	Exempted – <i>only intimation requirement to PPCB</i>

41 <https://cpcb.nic.in/openpdf.php?id=TGF0ZXN0RmlsZS8xNDZfMTQ5MjQ0Tg4OF9tZWVpYXBob3RvMTMxOTgucGRm>

42 http://moef.gov.in/wp-content/uploads/2019/05/54th-Minutes-uploaded_0.pdf

43 https://greentribunal.gov.in/gen_pdf_test.php?filepath=L25ndF9kb2N1bWVudHMvRWZpbGluZ19kb2N1bWVudHMvbmdb0ZG9jL2Nhc2Vkb2MvMDCwM-TEwMjAwNzU5MjAxNy8wNC8wMS8yNS8wNF8yNV8wMDFfMTYxNDc0ODY1MzkzMy5wZGY=

44 <https://docs.google.com/viewerng/viewer?url=https://www.eqmagpro.com/wp-content/uploads/2019/03/DraftBlueprintAntimony.pdf&hl=en>

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Punjab
5.	<p>Authorization under Hazardous Waste Management Rules</p> <p>Hazardous and other waste (Management & Transboundary Movements) Rules, 2008</p> <p>E-waste (Management & Handling) Rules, 2011.</p> <p>Hazardous and other waste (Management & Transboundary Movements) Rules, 2016</p>	Central Pollution Control Board	<p>As per the Minutes of Meeting dated February 17 and February 18, 2016⁴⁵ held by the Ministry of Environment, Forest and Climate Change, it was discussed that the waste from solar cells are not covered in any of the schedules of Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and of e-waste (Management & Handling) Rules, 2011.</p> <p>In light of the order dated February 27, 2019⁴⁶ issued by National Green Tribunal, the MNRE has issued a draft blueprint⁴⁷ for Management of Antimony Containing Glass from End-of-Life of the Solar PV Panels. It may be noted that in terms of the draft blueprint: (i) the recycling of end of life solar panel glass containing Antimony may be made mandatory on the generators as part of their environmental liability; (ii) producers of solar panels may be responsible for ensuring recycling of end-of-life glass panels as part of their extended producer's responsibility as in case of E-waste, used led acid batteries, packaging material etc.; and (iii) generators shall be required to ensure sound handling of unused solar panel waste.</p> <p>However, formal rules/ guidelines in this regard are yet to be finalized, and notified.</p>	Guidelines still in draft form and have not been notified. Upon notification, there will be obligations in respect of recycling and disposal.
6.	<p>Accreditation by State Agency –</p> <p>Punjab Electricity Regulatory Commission designates the Punjab Energy Development Agency as the 'State Agency' for the purposes of the REC Regulations.</p>	Punjab Energy Development Agency (PEDA)	RPG shall be required to obtain an accreditation certificate as per Annexure- I of the notification issued by Central Electricity Regulatory Commission dated November 5, 2015.	Applicable

45 https://cea.nic.in/wp-content/uploads/2020/04/registration_units.pdf

46 <https://www.peda.gov.in/assets/media/regardinguploadingofdocumentsonpedaswebsite.zip>

47 <https://cercind.gov.in/Act-with-amendment.pdf>

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Punjab
7.	Registration of Solar Power Plant by Central Agency	Ministry of Power, Central Electricity Authority (CEA)	<p>RPG company shall obtain a registration certificate as per Annexure-II of the Notification issued by Central Electricity Regulatory Commission Dated November 5, 2015.</p> <p>As per the notification dated April 13, 2018⁴⁸ issued by the Ministry of Power all electricity generating units producing 0.5 MW or more will have to register themselves with the Central Electricity Authority and obtain a unique registration number.</p>	Applicable
8.	Letter of Award	PEDA	<p>RfS issued by Punjab under PM Kusum Scheme⁴⁹.</p> <p>An RPG shall obtain a Letter of Award from the designated authority for showing that the project has been awarded to the RPG.</p>	Applicable
9.	Approval of Electrical Drawings - Before the commencement of Renewable Solar Power Plant the RPG shall obtain approval of electrical drawings.	Punjab Electrical Inspectorate	<p>The Punjab Electrical Inspectorate's electrical drawings for the solar power plant shall be as per the instructions and procedure provided by the Punjab Electrical Inspectorate.</p> <p>Additionally, such drawing schedule shall be approved by the Punjab Electrical Inspectorate as per the guideline provided for under Regulation 43 of the Central Electricity Authority (Measures Relating to safety and electrical Supply) Regulations, 2010.</p>	Applicable
10.	Approvals for Transmission line - Before the commencement of REPP the RPG shall obtain approval for laying down the transmission line which will transfer the power from the power plant to the sub-station.	<p>Punjab State Power Corporation Limited</p> <p>Approval of Chief Electrical Inspector to Govt. (CEIG), Punjab Power Corporation Limited</p>	A notice approving the transmission line under Section 164 of the Electricity Act, 2003 ⁵⁰ as issued by the respective State Government read with CEA (Technical standards for Construction of Electrical Plants and Electrical Lines) Regulations, 2010 ⁵¹ shall be published the said approval.	Applicable

48 https://cea.nic.in/wp-content/uploads/2020/02/tech_std_reg.pdf

49 <https://www.peda.gov.in/assets/media/regardinguploadingofdocumentsonpedaswebsite.zip>

50 https://mnre.gov.in/img/documents/uploads/file_f-1615355045648.PDF

51 <https://legislative.gov.in/sites/default/files/A1996-40.pdf>

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Punjab
11.	Approval of Evacuation Scheme – The RPG shall obtain an approval for evacuation of power from the respective authority.	State DISCOM (Punjab State Power Corporation Limited)	<u>As per point XIII of the Eligibility Criteria</u> under the <u>Punjab Tender</u> ⁵² issued through the PM Kusum Scheme, DISCOM shall give approval for evacuation of power from the solar plant.	Applicable
12.	Certificate for commissioning of Solar Power Plant at Project Site – RPG shall obtain a certificate of commissioning at the project site and a certificate of commissioning of Solar Power Plant by the Nodal Agency.	<u>PEDA</u>	As per the Punjab Tender issued under the PM Kusum Scheme, the RPG shall obtain a commissioning certificate from the respective authority.	Applicable
13.	Import Duty on Plant equipment	Ministry of New & Renewable Energy (MNRE)	As per Government <u>Notification</u> (No. 283/3/2018) ⁵³ dated March 09, 2021 under the First Schedule to the Customs Tariff Act, 1975 a basic customs duty on solar PV cells and modules / panels shall be imposed however, such duty shall be imposed from April 1, 2022.	Exempted - until April 1, 2022 please refer our Incentive list under Query 5
14.	NOC from Panchayat	Department of Rural development and Panchayat, Punjab	As per Section 4 of The Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996 ⁵⁴ the Gram Sabha shall approve plans, programs and projects for social and economic development before such plans, programs and projects are taken up for implementation by the Panchayat at the village level.	Applicable
15.	NOC from Aviation Ministry	Ministry of Power or Ministry of New and Renewable Energy, as the case may be.	As per the <u>Notification</u> (GSR 751 (E) dated February 13, 2014 ⁵⁵ issued by Ministry of Defence for the purpose of setting up of solar plant an NOC from the aviation ministry shall be obtained	Applicable

ALP Comment: While we have provided herein under the approvals that will be required, given that the law in relation to renewable energy is evolving, the same will have to be revisited at the time of installation of the Solar Project / the AgriPV project.

52 https://incog.gov.in/Mod_Noc/power/General_Guidelines%20_Power%20Projects.pdf

53 https://prsindia.org/files/bills_acts/bills_states/punjab/2021/PUNJAB%20RENEWABLE%20ENERGY%20SECURITY,REFORM,TERMINATION%20AND%20RE-DETERMINATION%20OF%20POWER%20TARIFF%20BILL,2021.pdf

54 Section 3, Section 4 and Section 6 of the 1978 Banks Act.

55 Section 7 of the 1978 Banks Act.

QUERY 2: List the barriers for an AgriPV project to be installed on agricultural land for additional large-scale solar generation, co-located with agriculture. Analyze the possibility for a new, commercial or hybrid category for an AgriPV project, so that power generated from it may either be used by farmer himself or sold through government utility, through PPA.

ALP Response:

ALP Note: Please refer to ALP Responses as provided under **IGEF Queries and ALP Responses with respect to Uttar Pradesh under Query 2** of this Report. The list of barriers provided thereunder is also applicable to the State of Punjab.

- In case of Punjab, from the perusal of information available in the public domain, we note instances of reopening of certain PPAs to renegotiate tariff prices. The State Government of Punjab has reopened discussions/ negotiations by passing a law in its Legislative Assembly. The Punjab Renewable Energy Security Reform, Termination, and Redetermination of Power Tariff Bill, 2021⁵⁶ which was unanimously passed in the state Legislative Assembly proposes to renegotiate tariff prices set out by state electricity regulatory commission on the signing of the PPAs with the RPGs. Consequently, uncertainty even post execution of PPAs in respect of tariff prices is a negative factor in undertaking the AgriPV project.
- It may also be noted that in case a stakeholder is desirous of setting up a new commercial or hybrid category AgriPV project, he / she / it may do so in terms of the extant laws as detailed herein and the Punjab New and Renewable Sources of Energy (NRSE) Policy, 2012 (“**Punjab NRSE Policy**”), as amended from time to time. It is important to mention that for the purposes of undertaking a new commercial or hybrid category AgriPV project, the relevant stakeholder will be required to obtain approvals as detailed herein under our response to Query 1.

QUERY 3: List potential practices or avenues to obtain a construction permit on agricultural land under present legal framework and authorities to be contacted. The possible avenues/offices of redressal for obtaining permit/permission for an AgriPV project in each state.

ALP Response:

ALP Note: Please refer to ALP Responses as provided under **IGEF Queries and ALP Responses with respect to Uttar Pradesh under Query 3** of this Report. The same are also applicable to the State of Punjab.

Construction Permits are not required for setting up solar PV plants in the State of Punjab. According to our informal discussions with the officials at PEDDA, the agency has stated that no permits would be required after the LoA is awarded by the agency and LoA would suffice for the same in the state.

QUERY 4: Does legislation in place permit farmers to take credit against agricultural land as collateral? If yes, is it actually happening? Any barriers that the farmers face? Are banks able to seize the collateral in case of default?

ALP Response:

- (i) In terms of The Punjab Agricultural Credit Operations and Miscellaneous Provisions (Banks) Act, 1978 (“**1978 Banks Act**”) which extends to the whole of Punjab was formulated to make provisions to facilitate adequate flow of credit for agricultural production and development through banks and other institutional credit agencies.
- (ii) In terms of the 1978 Banks Act, agriculturists shall be free to avail credit facilities from banks and / or other financial institutions and create charge / mortgage on their agricultural land in favour of the said lenders. In addition to charge on agricultural land, agricultural land owners are free to create charge on crop and other movable property in favor of the lenders. It may however be noted that in case the agriculturalist have availed credit from bank and / or other financial institutions, he / she / it shall be required to obtain a prior permissions of the bank and / or other financial institutions to lease / create tenancy on the said land. Any lease / tenancy created in contravention shall be void⁵⁷⁵⁸⁵⁹.
- (iii) In addition to this, 1978 Banks Act explicitly provides the bank to acquire and dispose of immovable property or interest in respect to any kind of financial assistance availed by the agriculturist.⁶⁰⁶¹
- (iv) Yes, we confirm that farmers in Punjab avail credit against agricultural land as collateral. It may however, be pertinent to mention that given that farms and farmers are located in rural areas in India, they prefer availing credit from private lenders in and around the area than from banks and / or financial institutions. Additionally, it may be noted that the circle rates i.e. the benchmark rate designated by state government for sale and purchase of agricultural land is lesser than other categories of land. Also, given the locational disadvantage, lack of awareness of benchmark for valuation, at the time of providing agricultural land as security, the valuation of the agricultural land becomes a challenge.

57 <https://pmkusum.uhbnv.org.in/2019-01-13--Final%20EOI%20-PM%20KUSUM%20Component%20A-HARAYNA.pdf>

58 Land belonging to the inhabitants of the village, i.e. Panchayat land.

59 Saur Urja Nigam Haryana Limited was an unlisted public company which is classified as a State Government company.

60 http://haryanadp.gov.in/Portals/0/PVCL-Rules-1964-Eng%2813_12_2013%29.pdf

61 Clause 5 of the Gram Panchayat Lease Policy applicable to Haryana.

QUERY 5: Financial implications for the solar project developer / owner as well as for the farmer. Please also highlight any tax implication on farmer/developer for establishing AgriPV power plant on the land of farmer. Whether developer and/or farmer may continue to have access to bank loans for their respective businesses i.e. AgriPV solar farms and agriculture respectively. Whether benefits/subsidies/minimum support price for farming may continue, even if agricultural land is also used for AgriPV power plant?

ALP Response:

ALP Note: Please refer to ALP Responses as provided under **IGEF Queries and ALP Responses with respect to Uttar Pradesh under Query 5** of this Report. The same are also applicable to the State of Punjab.

- (i) Please be advised that there may be other business models that the farmer and / or the developer may discuss and agree to in such case, tax implications will have to be assessed. However, we can confirm that 'Agricultural Income' whether that of the farmer and / or the developer (undertaking farming activity together with solar power generation) shall be exempt from payment of the income tax.
- (ii) Yes, we confirm that the developer and/or farmer can continue to have access to bank loans for their respective businesses i.e. AgriPV solar farms and agriculture respectively.
- (iii) Yes, in view of initiation of an AgriPV project there is no impact on the benefits/subsidies/minimum support price for farming and the same will continue unhindered.
- (iv) In addition to the above, other than the exemption mentioned herein above, it is also pertinent to mention and note the following exemptions under the Income Tax Act, 1961 and the Punjab New and Renewable Sources of Energy (NRSE) Policy, 2012 ("**Punjab NRSE Policy**"), as amended from time to time:

POLICY / ACT	INCENTIVES
Income Tax Act, 1961 (Appendix 1, Rule 5, Part-A, Tangible Assets III.8.XIII.(i) and (k))	As per the prevailing income-tax laws, 40% depreciation on Written-Down Value (WDV) is permitted on year on year basis. In addition, additional depreciation @ 20% shall also be allowed in first year.
Punjab NRSE Policy	<ul style="list-style-type: none"> • <u>For grid interfacing</u>: Punjab State Power Corporation (PSPCL) will provide jumpers at the interconnection point as defined in the relevant regulations or tariff order for evacuation of power to grid substation. • If the power is proposed to be sold to PSPCL on preferential tariff on long term basis, then the transmission line and associated bay at PSPCL grid sub-station along with ABT compliant check meters and associated equipment will be provided by PSPCL. • In all other cases, the private developer will be required to lay its own transmission lines from the switchyard of its generation facility to the PSPCL/Punjab State Transmission Corporation Limited (PSTCL) grid substation at its own cost in addition to all equipment required for evacuation of power in its own generating facility switchyard. All Associated equipment(s) at the PSPCL grid substation for accepting energy from the project including up gradation required will be provided by PSPCL. • <u>Power wheeling</u>: PSPCL/PSTCL will undertake to transmit the NRSE power through its grid, to consumers located in the State without any transmission and wheeling charges on the energy fed to the grid, irrespective of the distance from the generating station. • MNRE has allowed exemption in excise duty and concession in customs duty to project developer. • NRSE will be fully exempted from levy of Electrical Duty. 100% Electricity Duty from power consumer from state licensee during construction and testing of the project shall be waived. • NRSE power projects are to be fully exempt from Value Added Tax (VAT) and any cess thereupon. • 100% exemption from entry tax in respect of all supplies (including capital goods, structure and raw materials) made for setting up and trial operations of the projects. • 100% exemption from payment of fee and stamp duty for registration/lease deed charges for the land required for the project. • Agricultural land will be allowed to be used for setting up in the state and no Change in Land Use, External Development Charges /or any other charges/fees for the same will be payable. • Solar PV power projects will be exempt from obtaining any NOC/consent under the pollution control laws from the PPCB. • Solar power plants set up for generation of electricity from Solar Energy will be accorded the status of "Industry" in terms of the industrial policy of the state and all incentives available to new industrial projects will be applicable to solar power plants. Benefits under Mega projects policy can also be availed subject to the approvals and conditions prescribed by the Concerned Administrative Department.

QUERY 6: Research any legal basis or legal aspects for states to consider the introduction of a new type of land category recognizing AgriPV (apart from KUSUM component A, any experience in the state assuring construction permit for AgriPV projects as well as all benefits associated with farming on agricultural land).

ALP Response:

ALP Note: Please refer to ALP Responses as provided under **IGEF Queries and ALP Responses with respect to Uttar Pradesh under Query 6** of this Report. The same are also applicable to the State of Punjab.

QUERY 7: Recommendations to accelerate construction permits for AgriPV projects in each state on agricultural land.

ALP Response:

- (i) In our view, while no construction permits are required, the purposes of acceleration of the requirements and certificates as detailed under our response under Query 3 above, we recommend liaising with PEDDA and CERC prior to filing the required documents to understand the requirements and duly comply with the same and avoid any delays as a result of shortcomings and ensure issuance of the certificate of accreditation in a timely manner.
- (ii) Other than recommendations in relation to acceleration to construction permits requested under this Query 7, we have provided herein under some additional recommendations for the AgriPV sector:

Single Window Clearance	For the purposes of undertaking an AgriPV project, a single window clearance system should be constituted wherein all applications for undertaking such project be submitted to a state specified nodal agency and the said agency assists in obtaining all necessary approvals.
Incentives	<ul style="list-style-type: none"> • The AgriPV sector may be considered/notified as separate land category; • Encourage farmers to undertake AgriPV directly by providing bank financing on reduced rates of interest; • Waiver of duty on solar PV cells and modules / panels for the AgriPV Sector beyond April 1, 2022; • Waiver / reduction of tax rates including Goods and Service Tax for the AgriPV Sector.

Haryana

(a) **Relevant Legislations, Policies, Rules & Regulations:** For the purposes of our analysis and providing our responses, we have analyzed the following legislations, policies, rules and regulations:

- The Haryana Agriculture Credit Operations and Miscellaneous Provisions (Banks) Act, 1973;
- The Electricity Act, 2003;
- Punjab Security of Land Tenure Act, 1953 (as applicable to the State of Haryana);
- Agricultural Land Act, 1955;
- The Punjab Village Common Lands (Regulation) Rules, 1964 (as applicable to the State of Haryana);
- Haryana Solar Power Policy, 2016;
- Haryana Solar Power Policy Amendment 2019;
- The PM Kusum Scheme;
- Foreign Exchange Management Act, 1999 and the Foreign Direct Investment Policy, 2020

(b) **Haryana Renewable Energy Development Agency (“HAREDA”)**

- In Haryana, the HAREDA acting through the Chairman and its directors is the designated State Nodal Agency for promoting and developing renewable energy sources in the State. HAREDA is entrusted with implementing various central and state monitored schemes and projects in the area of renewable energy.
- However, it is pertinent to mention that unlike the states of Uttar Pradesh and Punjab wherein the nodal agencies are the implementing agencies, in the State of Haryana, the Uttar Haryana Bijli Vitran Nigam Limited (“**UHBVN**”) and Dakshin Haryana Bijli Vitran Limited (“**DHBVN**”) (herein after referred as “**Haryana DISCOMS**”) are the implementing agencies for implementation of **Component A** under the PM Kusum Scheme. UHBVN and DHBVN invites bids for setting up Grid Connected Solar Power Plants of 0.5 MW / 1.0 MW / 1.5 MW / 2 MW (AC) capacity primarily on barren land / uncultivable land / pasturelands / marshlands owned by individual farmers preferably located within 5 km radius of the identified 33/11 kV sub-stations for maximum capacity mentioned herein under Expression of Interest (“**EOI**”)⁶² of Solar Power Generators (“**SPGs**”) hereto.
- For the purposes of participating in the bidding process, the EOIs are required to provide the instructions and information as per the EOI of SPGs issued by the UHBVN/DHBVN under the PM Kusum Scheme, Summary of such instructions and information is provided herein under **Schedule IV** hereto (“**Haryana Summary of Instructions & Information**”).

(c) **Haryana Solar Policy, 2016**

It is pertinent to mention that in terms of the Haryana Solar Power Policy 2016, as amended from time to time, the Government of Haryana shall facilitate the lease/sub-lease of Panchayat Land i.e. ‘Shamilat Deh Land’⁶³ through SUN Haryana⁶⁴ i.e. Saur Urja Nigam Haryana or directly through Panchayat (as per prevailing government policies) for setting up of Solar Power Projects. That, the said lease may be granted for a minimum period of 30 (thirty) years.

(d) **Punjab Security of Land Tenure Act, 1953 (as applicable to the State of Haryana); and (ii) Agriculture Land Act, 1955 (hereinafter referred to as the “Haryana Tenancy Legislations”).**

Please note that in the state of Haryana, the lease and tenancy of land is regulated by the Haryana Tenancy Legislations. However, it is pertinent to mention that the Haryana Tenancy Legislations do not provide for leasing of specific categories of land or its end use. In view of the Haryana Tenancy Legislations providing the broad framework for leasing arrangements and the corresponding absence of explicit restriction / prohibition, it may be stated that land may be leased for any purpose *inter alia* including for AgriPV / Solar projects.

62 Section 6 (5) of FEMA

63 Regulation 3

64 Office Memorandum dated 13th May 2011

ALP Note: Unlike the UP Revenue Code, there is no specific enabling provision under the Haryana Tenancy Legislations providing for establishment of solar projects and leasing arrangements therefore. This lacunae creates ambiguity and may lead to farmers entering into informal arrangements leading to potential exploitation.

(e) Gram Panchayat Lands Lease Policy under the Punjab Village Common Lands (Regulation) Rules, 1964⁶⁵ (“Gram Panchayat Lease Policy applicable to Haryana”)

It may be noted that in terms of Gram Panchayat Lease Policy applicable to Haryana as applicable to Haryana, Panchayat may with the prior approval of the State Government, lease out its land by way of allotment for a period not exceeding 33 (thirty-three years) which shall be extendable for an additional period not exceeding 33 (thirty-three years). The said lease may be granted for *inter alia* setting up infrastructure facilities, units of public utility nature, Special Economic Zone Projects and Industrial Development or for such purposes as may be approved by the State Government, which lease shall be for the benefit of village community. In view of the above, land under the control of the Panchayats / Shamilat Deh Land may be leased for installation of solar projects⁶⁶. That, it is pertinent to mention that the land may be leased by way of an auction, terms and conditions of which shall be announced at the time of auction. It may also be noted that the:

- (i) The auction of lease vested in the Panchayat shall be conducted in the presence and under the supervision of the Block Development and Panchayat Officer and in case of his inability, an Extension Officer of the Block.
- (ii) A copy of every auction notice shall be sent to the Block Development and Panchayat Officer concerned 15 (fifteen) days before the date of auction.
- (iii) The Block Development and Panchayat Officer or the Extension Officer shall be present at every auction.

On the expiry of the lease period, the land shall automatically revert to the Panchayat and no separate proceeding under any law shall be required to terminate the lease or to take the possession thereof. The Panchayat shall be competent to take over the possession of the leased premises including the construction thereon, if any, for which no compensation shall be payable.

(f) Foreign Exchange Management Act, 1999 (“FEMA”) and the Foreign Direct Investment Policy (“FDI Policy”)

Please note in terms of FEMA⁶⁷, a person resident outside India, may hold an immoveable property in India only when such person was a resident of India or in case such person inherited the property from a person who was resident in India. FEMA read with Foreign Exchange Management (Acquisition and Transfer of Immoveable Property in India) Regulations, 2018 clarifies that a person resident outside India or an Overseas citizen cannot acquire an agricultural land in India⁶⁸.

In addition to the above, the FDI Policy, issued by the Department for Promotion of Industry and Internal Trade, Ministry of Commerce & Industry which regulates foreign investments in India provides for restriction on person resident outside India from investing into any entity that is involved in the agricultural sector/activity.

In view of the above, it is pertinent to mention that investments / acquisition by persons / entities which are not persons resident in India, in agricultural land, is restricted.

ALP Note: As stated above, ‘Land’ is a State subject and the relevant State Governments have exclusive powers to draw-up / adopt laws, regulations and policies in relation to ‘Land’. It is pertinent to mention that the while the laws, regulations and polices drawn-up by the relevant State Government targeting establishment of renewable and more specifically solar power projects enable solar projects to be established on agricultural land without conversion of land use (“CLU”), however, restrictions under FEMA and its Regulations may be in contradiction of the State specific guidelines. By way of illustration, in case of farmer desiring to lease land to a private developer for an AgriPV project, it is likely that the private developer (either having existing foreign investment or desirous of raising offshore funds) may necessarily require CLU even though the state specific solar energy policy does not have a specific requirement for CLU.

65 http://environmentclearance.nic.in/writereaddata/Draft_EIA_2020.pdf

66 <https://main.sci.gov.in/judgment/judis/14617.pdf>

67 <https://pib.gov.in/newsite/printrelease.aspx?relid=137373>

68 14.7.16.pdf (hspcb.gov.in)

(g) IGEF Queries and ALP Responses with respect to Haryana:

We have separately dealt with each query by IGEF under the Terms of Reference (“TOR”) and provided herein under our responses. For ease of reference and understanding, while providing our responses, we have *ad verbatim* reproduced the queries raised by IGEF:

QUERY 1: List the legal requirements of permits/ licenses to establish a multi-MW (1 to 10 MW) size solar project in Uttar Pradesh, Punjab and Haryana on agricultural land.

ALP Response:

The regulatory and policy framework for AgriPV solar project sector in India is largely derived from the PM Kusum Scheme (which scheme has been drawn up from the existing solar policies) as applied and adopted by various states. It may be noted that as on date PM Kusum Scheme as part of Component A (discussed above) envisages and provides for only Grid Connected Solar Power Plants of up to 2 MW (AC) capacity. The state of Haryana has adopted and applied the PM Kusum Scheme to AgriPV projects within the state.

From a perusal of the PM Kusum Scheme read with policies / state legislations in relation to solar power generation, our finding is that the permits under PM Kusum Scheme for AgriPV projects overlap the permits required for setting up a multi-MW size solar project. Therefore, to the extent that the PM Kusum Scheme does not specifically provide for projects other than the grid connected Solar Power Plants beyond 2 MW capacity, the same may be set up as commercial or hybrid projects by placing reliance upon the existing solar policies within the state, even though there is no specific mention or carve out for AgriPV projects currently.

We have provided herein under the indicative list of approvals that will be required for establishing a multi-level size Solar Project / the AgriPV project in Haryana.

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Haryana
1.	Environmental Clearance	Ministry of Environment, Forests & Climate Change (“MoEF&CC”), New Delhi	<p>It may be noted that Schedule I of the MoEF&CC EIA Notification 2006 lists the projects / activities for which prior environmental clearance will be required.</p> <p>Given that solar projects and / or AgriPV projects are not listed in Schedule I of the MoEF&CC EIA Notification 2006, therefore no environmental clearance will be required for undertaking installation of solar projects and / or AgriPV⁶⁹.</p> <p>Additionally, MoEF&CC has issued a draft notification in March 2020⁷⁰ that exempts Solar Photo Voltaic Power Projects from obtaining environmental clearances. This notification has yet to come in force.</p>	Exempted – <i>Please refer to our incentive list under Query 5</i>

69 [openpdffile.php\(cpcb.nic.in\)](http://openpdffile.php(cpcb.nic.in))

70 http://moef.gov.in/wp-content/uploads/2019/05/54th-Minutes-uploaded_0.pdf

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Haryana
2.	Forest Clearance The Forest (Conservation) Act, 1980	MoEF&CC and State Forest Department	<p>Section 2 of The Forest (Conservation) Act, 1980 read with Rule 6 of the Forest Conservation Rules, 2003 provides that a forest clearance certificate is required to be obtained in case forest land is being used for non-forest purposes. It is pertinent to mention that The Forest (Conservation) Act, 1980 or the Indian Forest Act, 1927 does not provide for the meaning or definition of the term 'Forest' or 'Forest Land' and the meaning of the same is dealt with under the judgement rendered by the Hon'ble Supreme Court of India in T.N. Godavarman Thirumulkpad v. Union of India (AIR1997SC1228)⁷¹ date December 12, 1996 which provides that:</p> <p><i>“the word ‘forest’ must be understood according to its dictionary meaning. This description covers all statutorily recognized forests, whether designated as reserved, protected or otherwise for the purpose of Section 2 (i) of the Forest Conservation Act. The term ‘forest land’, occurring in Section 2, will not only include “forest” as understood in the dictionary sense, but also any area recorded as forest in the Government record irrespective of the ownership.”</i></p> <p>The requirement for obtaining a forest clearance will depend on the location where the Solar Project / AgriPV Project is proposed to be installed.</p>	Exempted – Unless Land is Forest Land
3.	Wildlife Clearance Wildlife (Protection) Act, 1972	MoEF&CC	<p>Wildlife clearance will only be required in case the Solar Project / AgriPV Project which is proposed to be constructed lies within an Ecologically Sensitive Area and is not located within 10 km of any National Park/Wildlife Sanctuary.</p> <p>Further, in case the location of the Solar Project / AgriPV project does not contravene any international biodiversity or ecosystem conservation conventions, wildlife clearances will not be required.</p>	Exempted unless falling within the ecological area

71 https://greentribunal.gov.in/gen_pdf_test.php?filepath=L25ndF9kb2N1bWVudHMvRWZpbGluZ19kb2N1bWVudHMvbmd0ZG9jL2Nhc2Vkb2MvMDCwM-TEwMjAwNzU5MjAxNy8wNC8wMS8yNS8wNF8yNV8wMDFfMTYxNDc0ODY1MzkzMy5wZGY=

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Haryana
4.	Consent to Establish / Operate Air (Prevention and Control of Pollution) Act, 1981. Water (Prevention and Control of Pollution) Act, 1974	Haryana Pollution Control Board (“HSPCB”)	<p>The Ministry of Environment, Forest and Climate Change <i>vide</i> its notification dated March 5, 2016⁷² has exempted the category of white industries from obtaining Environment Clearance.</p> <p>HSPCB has put Solar Power Generation through Solar Photovoltaic Plants producing less than 25MW power,⁷³ in the exempted category from the consent management system and the Central Pollution Control Board <i>vide</i> its clarification dated January 18, 2017⁷⁴ has exempted white category industries from obtaining consent from respective State Pollution Control Boards to Establish / obtain consent to operate.</p> <p>In our view, as per the extant notification, an intimation to the HSPCB in re installation of a Solar Power / AgriPV Plan should suffice.</p>	Exempted – <i>only intimation requirement to HSPCB</i>
5.	Authorization under Hazardous Waste Management Rules Hazardous and other waste (Management & Transboundary Movements) Rules, 2008 E-waste (Management & Handling) Rules, 2011. Hazardous and other waste (Management & Transboundary Movements) Rules, 2016	Central Pollution Control Board	<p>As per the Minutes of Meeting dated February 17 and February 18, 2016⁷⁵ held by the Ministry of Environment, Forest and Climate Change, it was discussed that the waste from solar cells are not covered in any of the schedules of Hazardous Waste (Management, Handling and Trans-boundary Movement) Rules, 2008 and of e-waste (Management & Handling) Rules, 2011.</p> <p>In light of the order dated February 27, 2019⁷⁶ issued by National Green Tribunal, the MNRE has issued a draft blueprint⁷⁷ for Management of Antimony Containing Glass from End-of-Life of the Solar PV Panels. It may be noted that in terms of the draft blueprint: (i) the recycling of end of life solar panel glass containing Antimony may be made mandatory on the generators as part of their environmental liability; (ii) producers of solar panels may be responsible for ensuring recycling of end-of-life glass panels as part of their extended producer’s responsibility as in case of E-waste, used led acid batteries, packaging material etc.; and (iii) generators shall be required to ensure sound handling of unused solar panel waste.</p> <p>However, formal rules/ guidelines in this regard are yet to be formalized and passed.</p>	Guidelines still in draft form and have not been notified. Upon notification, there will be obligations in respect of recycling and disposal.

72 <https://docs.google.com/viewerng/viewer?url=https://www.eqmagpro.com/wp-content/uploads/2019/03/DraftBluePrintAntimony.pdf&hl=en>

73 https://cea.nic.in/wp-content/uploads/2020/04/registration_units.pdf

74 <https://pmkusum.uhbvn.org.in/2019-01-13--Final%20EOI%20-PM%20KUSUM%20Component%20A-HARAYNA.pdf>

75 Chief Electrical Inspector Department, Haryana – SCO NO 117-118, TOP FLOOR, SECTOR 17-B, CHANDIGARH (ceiharyana.in)

76 <https://cercind.gov.in/Act-with-amendment.pdf>

77 https://cea.nic.in/wp-content/uploads/2020/02/tech_std_reg.pdf

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Haryana
6.	Accreditation by State Agency – Haryana Electricity Regulatory Commission designates the Haryana Energy Development Agency as the ‘State Agency’ for the purposes of the REC Regulations.	Haryana Renewable Energy Development Agency (“HAREDA”)	RPG shall be required to obtain an accreditation certificate as per Annexure- I of the notification issued by Central Electricity Regulatory Commission dated November 5, 2015.	Applicable
7.	Registration of Solar Power Plant by Central Agency	Ministry of Power, Central Electricity Authority (CEA)	RPG company shall obtain a registration certificate as per Annexure-II of the Notification issued by Central Electricity Regulatory Commission Dated November 5, 2015. As per the notification dated April 13, 2018 ⁷⁸ issued by the Ministry of Power all electricity generating units producing 0.5 MW or more will have to register themselves with the Central Electricity Authority and obtain a unique registration number.	Applicable
8.	Letter of Award	UHBVN/DHBVN (Haryana DISCOMS)	Haryana DISCOMS will issue LOA only to successful applicants who fulfil the criteria as prescribed in Clause 7⁷⁹ of the Haryana EOI .	Applicable
9.	Approval of Electrical Drawings – Before the commencement of Renewable Solar Power Plant the RPG shall obtain approval of electrical drawings.	Chief Electrical Inspector Department, Haryana	The Chief Electrical Inspector Department, Haryana , ⁸⁰ electrical drawing for the solar power plant shall be as per the instructions and procedure provided by the Chief Electrical Inspector department, Haryana Additionally, such drawing schedule shall be approved by the Haryana Electrical Inspector as per the guideline provided for under Regulation 43 of the Central Electricity Authority (Measures Relating to safety and electrical Supply) Regulations, 2010.	Applicable
10.	Approvals for Transmission line –Before the commencement of REPP the RPG shall obtain approval for laying down the transmission line which will transfer the power from the power plant to the sub-station	Haryana Electricity Regulatory Commission (“HERC”)	A notice approving the transmission line under Section 164 of the Electricity Act, 2003 ⁸¹ as issued by the respective State Government read with CEA (Technical standards for Construction of Electrical Plants and Electrical Lines) Regulations, 2010 ⁸² shall be published the said approval.	Applicable

78 <https://cdnbbsr.s3waas.gov.in/s3f80ff32e08a25270b5f252ce39522f72/uploads/2020/12/2020120946.pdf>

79 2019-01-13--Final EOI -PM KUSUM Component A-HARAYNA (3).pdf

80 <https://legislative.gov.in/sites/default/files/A1996-40.pdf>

81 https://ncog.gov.in/Mod_Noc/power/General_Guidelines%20Power%20Projects.pdf

82 Section 4 and Section 5 of the 1973 Credit Act.

S.No.	Type of Permit / License / Clearance	Authority	Current Status of Clearance	Applicability to the State of Haryana
11.	Approval of Evacuation Scheme - The RPG shall obtain an approval for evacuation of power from the respective authority.	UHBVN/DHBVN (Haryana DISCOMS)	Power evacuation facility shall be provided as per Clause 4.1⁸³ of the Haryana Solar Power Policy, 2016	Applicable
12.	Certificate for commissioning of Solar Power Plant at Project Site – RPG shall obtain a certificate of commissioning at the project site and a certificate of commissioning of Solar Power Plant by the Nodal Agency.	Haryana DISCOMS	As per Haryana Expression of Interest⁸⁴ issued under the PM Kusum Scheme, the RPG shall obtain a commissioning certificate from the respective authority.	Applicable
13.	Import Duty on Plant equipment	Ministry of New & Renewable Energy (MNRE)	As per Government Notification dated March 09, 2021 under the First Schedule to the Customs Tariff Act, 1975 a basic customs duty shall be imposed however, such duty shall be imposed from April 1, 2022.	Exempted - until April 1, 2022 please refer our Incentive list under Query 5
14.	NOC from Panchayat	Development & Panchayats Department, Government of Haryana	As per Section 4 of The Provisions of the Panchayats (Extension to the Scheduled Areas) Act, 1996 ⁸⁵ the Gram Sabha shall approve plans, programs and projects for social and economic development before such plans, programs and projects are taken up for implementation by the Panchayat at the village level.	Applicable
15.	NOC from Aviation Ministry	Ministry of Power or Ministry of New and Renewable Energy, as the case may be.	As per the Notification (GSR 751 (E) dated February 13, 2014 ⁸⁶ issued by Ministry of Defence for the purpose of setting up of solar plant an NOC from the aviation ministry shall be obtained	Applicable

ALP Comment: While we have provided herein under the approvals that will be required, given that the law in relation to renewable energy is evolving, the same will have to be revisited at the time of installation of the Solar Project / the AgriPV project.

83 Section 3 of the 1973 Act.

84 Section 7 of the 1973 Act.

85 Section 8 of the 1973 Act.

86 To be updated post discussions with PEDAs.

QUERY 2: List the barriers for an AgriPV project to be installed on agricultural land for additional large-scale solar generation, co-located with agriculture. Analyse the possibility for a new, commercial or hybrid category for an AgriPV project, so that power generated from it may either be used by farmer himself or sold through government utility, through PPA.

ALP Response:

ALP Note: Please refer to ALP Responses as provided under **IGEF Queries and ALP Responses with respect to Uttar Pradesh under Query 2** of this Report. The same are also applicable to the State of Haryana.

- In the state of Haryana, given that the Nodal Agency and the Implementation Agency are different, there may be lack of coordination between the departments. This may lead to ambiguity for stakeholders as to which department to apply for what approval making the process more cumbersome.
- It may also be noted that in case a stakeholder is desirous of setting up a new commercial or hybrid category AgriPV project, he / she / it may do so in terms of the extant laws as detailed herein and the Haryana Solar Policy, 2016, as amended from time to time. It is important to mention that for the purposes of undertaking a new commercial or hybrid category AgriPV project, the relevant stakeholder will be required to obtain approvals as detailed herein under our response to Query 1.

QUERY 3: List potential practices or avenues to obtain a construction permit on agricultural land under present legal framework and authorities to be contacted. The possible avenues/offices of redressal for obtaining permit/permission for an AgriPV project in each state.

ALP Response:

ALP Note: Please refer to ALP Responses as provided under **IGEF Queries and ALP Responses with respect to Uttar Pradesh under Query 3** of this Report. The same are also applicable to the State of Haryana.

QUERY 4: Does legislation in place permit farmers to take credit against agricultural land as collateral? If yes, is it actually happening? Any barriers that the farmers face? Are banks able to seize the collateral in case of default?

ALP Response:

- (i) The Haryana Agriculture Credit Operations and Miscellaneous Provisions (Banks) Act, 1973 (“1973 Act”) which extends to whole of Haryana was formulated to make provisions to facilitate adequate flow of credit for agriculture production and development through banks and institutional credit agencies.
- (ii) In terms of the 1973 Act, agricultural land owners shall be free to avail credit facilities from banks and / or other financial institutions and create charge / mortgage on their agriculture land in favour of the said lenders.⁸⁷ Further, charge on agriculture land, agriculture land owners are free to create charge on crop and other movable property in favour of the lenders. It may however, be noted that in case the agriculturalist have availed credit from bank and / or other financial institutions, he / she / it shall be required to obtain a prior permissions of the bank and / or other financial institutions to lease / create tenancy on the said land. Any lease / tenancy created in contravention shall be void^{88,89,90}.

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- (iii) In addition to this, 1973 Act explicitly provides for the right of the bank through the order of the prescribed authority to acquire and dispose of immovable property or interest in respect to any kind of financial assistance availed by the agriculturist.⁹¹⁹²
- (iv) Yes, we confirm that farmers in Haryana avail credit against agricultural land as collateral. It may however, be pertinent to mention that given that farms and farmers are located in rural areas in India, they prefer availing credit from private lenders in and around the area than from banks and / or financial institutions. Additionally, it may be noted that the circle rates i.e. the benchmark rate designated by state government for sale and purchase of agricultural land is lesser than other categories of land. Also, given the locational disadvantage, lack of awareness of benchmark for valuation, at the time of providing agricultural land as security, the valuation of the agricultural land becomes a challenge.

Query 5: Financial implications for the solar project developer / owner as well as for the farmer. Please also highlight any tax implication on farmer/developer for establishing AgriPV power plant on the land of farmer. Whether developer and/or farmer may continue to have access to bank loans for their respective businesses i.e. AgriPV solar farms and agriculture respectively. Whether benefits/subsidies/minimum support price for farming may continue, even if agricultural land is also used for AgriPV power plant?

ALP Response:

ALP Note: Please refer to ALP Responses as provided under **IGEF Queries and ALP Responses with respect to Uttar Pradesh under Query 5** of this Report. The same are also applicable to the State of Haryana.

- (i) Please be advised that there may be other business models that the farmer and / or the developer may discuss and agree to in such case, tax implications will have to be assessed. However, we can confirm that 'Agricultural Income' whether that of the farmer and / or the developer shall be exempt from payment of the income tax.
- (ii) Yes, we confirm that the developer and/or farmer can continue to have access to bank loans for their respective businesses i.e. AgriPV solar farms and agriculture respectively.
- (iii) Yes, in view of initiation of an AgriPV project there is no impact on the applicable benefits/subsidies/minimum support price for farming and the same should continue unhindered.
- (iv) In addition to the above, other than the exemption mentioned herein above, it is also pertinent to mention and note the following exemptions under the Income Tax Act, 1961 Act and the Haryana Solar Power Policy, 2016:

POLICY / ACT	INCENTIVES
Income Tax Act, 1961 (Appendix 1, Rule 5, Part-A, Tangible Assets III.8.XIII.(i) and (k))	As per the prevailing income-tax laws, 40% depreciation on Written-Down Value (“WDV”) is permitted on year on year basis. In addition, additional depreciation @ 20% shall also be allowed in first year.
Haryana Solar Policy, 2016	<ul style="list-style-type: none"> • All expenses for power evacuation, transmission, distribution line and synchronizing equipment to be as per HERC orders on Renewable energy Tariff & other issues, as modified from time to time. • State transmission utility/Transmission/Distribution Licensee to bear cost of transmission line up to 10 km from the inter-connection point, beyond 10 km, cost to be borne equally between IPP and the licensee. • Cost of any augmentation required after the interconnection point to be borne by the concerned Transmission/Distribution Licensee. • Exemption of Electricity Duty & Electricity Taxes & Cess, Wheeling, Transmission & distribution, cross subsidy charges, surcharges and Reactive Power Charges. • All electricity taxes & cess, electricity duty, wheeling charges, cross subsidy charges, Transmission & distribution charges and surcharges to be totally waived off for Ground mounted and Roof Top Solar Power Projects. • All new MW scale solar generating projects to be treated as “Industry” in terms of Industrial Policy of the State and all the incentives available to industrial units under the industrial policy to be available to the solar power producers/units. • MW scale project shall not require any change of Land Use approval from Town & Country Planning Department. • Project to be exempted from External Development Charges, scrutiny fee and infrastructure development charges but in case of special service, External Development Charges to be charged on pro-rata basis. Details of such projects to be intimated to the Town & Country Planning Department. • After expiry of PPA or when plant ceases to operate on the land, land use to revert to the original status of land. • SPP do not require any clearance from the Haryana Pollution Control Board. • Forest clearance, if required, shall be facilitated by a single window authority clearance agency of the Renewable Energy Department. • MW scale Projects to get 100% exemption from payment of fee and stamp duty charges for registration of rent/lease deed for the land required for setting up of these projects. • The developers setting up the ground mounted MW scale solar power plant may also use the space in between the installed solar panels for commercial floriculture/horticulture related activities provided that it does not affect solar power generation. • For grid connected solar power projects, installed for sale of power, the application shall be accompanied with the Earnest Money Deposit (EMD) of Rs.2.00 lacs per MW (Rs.200/- per KW) in the shape of demand draft, which shall be refunded after signing of PPA.

Query 6: Research any legal basis or legal aspects for states to consider the introduction of a new type of land category recognizing AgriPV (apart from KUSUM component A, any experience in the state assuring construction permit for AgriPV projects as well as all benefits associated with farming on agricultural land).

ALP Response:

ALP Note: Please refer to ALP Responses as provided under **IGEF Queries and ALP Responses with respect to Uttar Pradesh under Query 6** of this Report. The same are also applicable to the State of Haryana.

Query 7: Recommendations to accelerate construction permits for AgriPV projects in each state on agricultural land⁹³.

ALP Response:

- (iii) In our view, while no construction permits are required, the purposes of acceleration of the requirements and certificates as detailed under our response under Query 3 above, we recommend liaisoning with HAREDA / Haryana DISCOMS and CERC prior to filing the required documents to understand the requirements and duly comply with the same and avoid any delays as a result of shortcomings and ensure issuance of the certificate of accreditation in a timely manner.
- (iv) Other than recommendations in relation to acceleration to construction permits requested under this Query 7, we have provided herein under some additional recommendations for the AgriPV sector:

Single Window Clearance	For the purposes of undertaking an AgriPV project, a single window clearance system should be constituted wherein all applications for undertaking such project be submitted to a state specified nodal agency and the said agency assists in obtaining all necessary approvals.
Incentives	<ul style="list-style-type: none"> • The AgriPV sector may be considered/notified as separate land category; • Encourage farmers to undertake AgriPV directly by providing bank financing on reduced rates of interest; • Waiver of import duty on solar PV cells and modules / panels for the AgriPV Sector beyond April 1, 2022;

Schedule I

UP Summary of Instructions & Information

1. Selection of bidders for procurement of power from AgriPV project for aggregate capacity of 106 MW shall be done through Tariff based Competitive Bidding Process.
2. Bidder shall deploy only commercially established and operational technologies for AgriPV project.
3. Bidder shall submit bids for the development of project with a minimum individual capacity of 0.5 MW; maximum shall be 2 MW. The bidder may participate for the UP Substation List, however, they are not allowed to bid more than once for a particular substation.
4. Solar Power Generator (“SPG”) shall generate minimum energy within the permissible lower limit of CUF declared by the SPG.
5. After completion of evaluation process, a LoA will be issued to the successful bidder to sign PPA with the procurer for duration of 25 (twenty five) years.
6. Bidders are required to quote single fixed tariff for 25 (twenty five) years. Tariff quoted has to be less than or equal to Rs. 3.10/kWh.
7. SPG will be responsible for construction of dedicated 11 kV line from SPP to sub-station, construction of Bay and related switchgear. The SPG can also get constructed the 11 kV lines through DISCOM by paying applicable charges.
8. SPG shall be responsible for the construction, operation & maintenance of the 11 kV line.
9. If more than 1 (one) bidders are awarded SPPs to be connected, then they shall be permitted to establish a common injection line.
10. SPG shall have to deposit the applicable connectivity charges to the DISCOMs.
11. SPG shall comply with the Grid Code and grid connectivity and other related regulations as applicable in the state of Uttar Pradesh.
12. RPGs who have their own land or who has land lease agreement will be eligible to participate and be treated as SPG.
13. The applicant has to furnish the certified copy of the land ownership documents as proof of land holding of the total required land for the applied capacity. The minimum land required is 1.5 Hectare for 1 MW proportionately of higher capacity. A copy of Khata/Khatauni showing the land in name of the concerned farmer/group of farmers is to be mandatorily attached.
14. If the interested SPG is not able to arrange the required equity for setting up of SPP then they may opt for setting up of SPP through a developer by signing a land lease agreement. The owner of the land will get lease rent on mutually agreed terms and conditions between the parties. The lease rent may be in terms of Rs. per year per acre of land or in terms of Rs. per unit energy generated per acre.
15. The Developer will be eligible to participate in the bid and will be entitled as SPG to sign PPA.
16. Date of execution of land lease agreement should be prior to the date of submission of bid.
17. The Project Developer desirous to set up the SPP on leased land should be a Company incorporated in India and registered under the Companies Act; OR A consortium having one member as Lead Member (Having 51% of shareholding). Post-selection, the consortium shall get itself registered under the Companies Act prior to signing of PPA; OR A LLC, after getting selected will have to register as a Company under the Companies Act, before signing of PPA, keeping the original shareholding of LLC unchanged.
18. LLPs are not eligible for participation.
19. The Bid shall contain a legally enforceable Consortium Agreement designating one of the Members to be the Lead Member who shall continue to hold minimum fifty one percent (51%) equity in the Project Company up to a period of one (3) year after commencement of supply of power.
20. The Lead Member of the Bidding Consortium shall be liable to the extent of 100% of the total proposed commitment of equity investment in the Project Company, i.e., for both its own liability as well as the liability of the other Members.
21. The selection of Project would be technology agnostic within PV technology and crystalline silicon or thin film or CPV, with or without Trackers can be installed.

22. Leasing of land will be a bi-partite agreement between the farmer and the developer, the farmer(s) may opt for payment of lease rent directly in their bank account by the DISCOM, from the payment due to the developer.
23. No financial eligibility will be required from farmers/group of farmers/cooperatives/ panchayats/ farmer producer organizations and water user associations.
24. For a developer setting up of Solar Power Plant on leased land, his Net worth shall not be less than Rs. 1.00 Crore per MW.
25. The computation of Net worth shall be based on unconsolidated audited annual accounts of the Company. For the purpose of the computation of Net worth, any one of the last three financial years and up to 7 days prior to Bid Deadline shall be considered.
26. The substation wise Cumulative capacity to be installed is 106 MW. Bidder may participate for all 24 substations.
27. Bid of a Project developer will be disqualified if it is found that its proprietor/partner/director/member has also submitted bid as proprietor/partner/director/member for another leased land for the same substation.
28. Selected bidders have to submit a PBG of Rs. 5 Lakh/MW.
29. The technical requirements of integrated grid operation are specified in the Indian Electricity Grid Code (IEGC).
30. The Bidder /SPG shall achieve Financial Closure 6 months of issuance of LOA.
31. Maximum time period allowed for commissioning of the full Project Capacity shall be limited to 12 months from the Date of issuance of LOA.
32. Project to be selected under this RfS provides for deployment of PV Technology. However, the selection of Project would be technology agnostic within PV technology and crystalline silicon or thin film or CPV, with or without Trackers can be installed.
33. If farmers/farmer bodies opt to set up the solar power plant through the developer then they will be entitled to lease rent as per mutually agreed terms and conditions.
34. Leasing of land will be a bi-partite agreement between farmer and the developer and procurer/ DISCOM.
35. No financial eligibility is required in case farmers/group of farmers/panchayats/ farmer producer organizations and water user associations opting to develop the project with their own investment and participating in the bid.
36. If a Developer is setting up Solar Power Plant on leased land, his net worth shall NOT be less than Rs. 1.00 Crore per MW.
37. Computation of net worth shall be based on unconsolidated audited annual accounts of any last three financial years and for a newly incorporated Company relying solely on its own credentials, where the annual account has not been prepared, the Net Worth criteria should be met not more than seven days prior to the last date of submission of response to RfS.
38. SPG shall obtain all approvals, permits and clearances required for setting up of the Project including those required from State Government and local bodies shall be in the scope of the SPG.

Schedule II

Nine-Fold Land Use Classification

- 1. Forests:** This includes all lands classed as forest under any legal enactment dealing with forests or administered as forests, whether state-owned or private, and whether wooded or maintained as potential forest land. The area of crops raised in the forest and grazing lands or areas open for grazing within the forests should remain included under the forest area.
- 2. Area under Non-agricultural Uses:** This includes all lands occupied by buildings, roads and railways or under water, e.g. rivers and canals and other lands put to uses other than agriculture.
- 3. Barren and Un-culturable Land:** includes all barren and unculturable land like mountains, deserts, etc. Land which cannot be brought under cultivation except at an exorbitant cost, should be classed as unculturable whether such land is in isolated blocks or within cultivated holdings.
- 4. Permanent Pastures and other Grazing Lands:** includes all grazing lands whether they are permanent pastures and meadows or not. Village common grazing land is included under this head.
- 5. Land under Miscellaneous Tree Crops, etc.:** This includes all cultivable land which is not included in 'Net area sown' but is put to some agricultural uses. Lands under Casurina trees, thatching grasses, bamboo bushes and other groves for fuel, etc. which are not included under 'Orchards' should be classed under this category.
- 6. Culturable Waste Land:** This includes lands available for cultivation, whether not taken up for cultivation or taken up for cultivation once but not cultivated during the current year and the last five years or more in succession for one reason or other. Such lands may be either fallow or covered with shrubs and jungles, which are not put to any use. They may be assessed or unassessed and may lie in isolated blocks or within cultivated holdings. Land once cultivated but not cultivated for five years in succession should also be included in this category at the end of the five years.
- 7. Fallow Lands other than Current Fallows:** This includes all lands, which were taken up for cultivation but are temporarily out of cultivation for a period of not less than one year and not more than five years.
- 8. Current Fallows:** This represents cropped area, which are kept fallow during the current year. For example, if any seeding area is not cropped against the same year it may be treated as current fallow.
- 9. Net area Sown:** This represents the total area sown with crops and orchards. Area sown more than once in the same year is counted only once.

Schedule III

Punjab Summary of Instructions & Information

1. The Government of Punjab endeavors to promote the installation of plants through SPGs who have land in their names in the revenue record of the State Government. PEDDA has been nominated as the Nodal Agency for implementation of the PM-KUSUM Scheme.
2. PEDDA is responsible for inviting of applications from the farmers, allocation of solar plants and signing of Implementation Agreements (“IAs”).
3. PEDDA has invited applications from farmers, group of farmers, Panchayats, co-operatives, farmer producer organizations and water user associations (hereinafter called Solar Power Generators”) for setting up solar PV plants of individual capacity 1, 1.5 or 2 MW.
4. The Punjab State Electricity Regulatory Commission (“PSERC”) has notified the levelized tariff @ Rs. 2.748/kwh. The generated power will be purchased by Punjab State Power Corporation Limited (“PSPCL”) at pre fixed levelised tariff of Rs. 2.748/Kwh.
5. The solar power will be purchased by the PSPCL for a period of 25 years.
6. Individual solar PV power plants of capacity 1MW, 1.5 MW or 2MW shall be set up for the total aggregate capacity of 220 MW. PSPCL has notified the 66KV substations and capacity of the solar power to be injected into each substation. The list of substations including the capacity of solar power plants to be set up is placed in the Annexure of the RfS. The solar power plants shall be set up near to the 66 KV substations, preferably within a range of 5 kms.
7. For participating in the RfS process, the applicants shall have to get themselves registered with the eProcurement website. The SPG has to submit Earnest Money Deposit of Rs. 1 Lakh/MW through the IPG mode with the application or in the form of Bank Guarantee (BG) valid for a period of six months. The applicant has to upload the scanned copy of the BG on the website along with the application and submit the original Bank Guarantee at PEDDA head office before the last date and time for submissions of Applications.
8. The SPG willing to set up a solar PV power plant shall fill the application form and submit the same along with the required documents, prescribed processing fee and EMD online. Physical forms are not accepted.
9. In case, total aggregate capacity of solar power plants of the eligible applications received for a particular sub-station is less than or equal to the capacity notified for connectivity at the substation, Letter of Award (LoA) will be issued to all eligible applicants for that sub-station for setting up solar power plant and procurement of solar power at the pre fixed levelized tariff of Rs. 2.478/kwh.
10. If the capacity of received applications is more than the capacity for the sub-station, then e-reverse competitive bidding will be carried out. Allocation will be based upon the lowest tariff ordered in ascending order until the target power capacity notified for each substation is achieved.
11. The selected SPG has to sign an Implementation Agreement (“IA”) with PEDDA for implementation of the project within one month from the date of issue of the LOA only after the submission of Performance Bank Guarantee (PBG) to PSPCL by the SPG.
12. The administration of PPA, connectivity of power plants and release of payment shall be the responsibility of PSPCL.
13. The selected SPG shall submit PBG of Rs. 5 Lakh/MW to PSPCL. The PBG will be returned to the SPG after successful commissioning of the solar power plant.
14. Power purchase agreement (PPA) would be signed with the SPG and PSPCL within 2 months from the date of the LOA. PPA will be effective for a period of 25 years from the commercial operation date. PPA can be extended through mutual agreement between PSPCL and SPG beyond 25 years.
15. There shall be no limit on DC Capacity of the plant, however, the injection of power on the AC side cannot be more than the allocated MW capacity.
16. PSPCL will accept the energy corresponding to CUF of 21%. The SPP has to generate minimum energy corresponding to CUF of 15%.

17. Any energy fed in excess of the CUF of 21% shall be treated as dump power. If the peak capacity reaches higher than the contracted capacity and causes any disturbance, the SPG will have to reduce the output and pay the penalty/charges.
19. PSPCL will be responsible for providing connectivity to the solar power plant at the 11kV side of the nearest 66 kV grid substation. SPG shall bear the cost of laying of 11kV transmission line, installation of switchgear and related equipment. Alternatively, the SPG can get constructed line and other works through PSPCL by paying the applicable costs. The SPG will bear the cost of the transmission line and will be responsible for maintaining it.
20. SPG is to commission the power plant within 12 months of issuance of LoA. An inspection of the power plant will be conducted after receiving a written request from the SPG and certify the commissioning of the plant. In case of failure, PSPCL will encash the PBG.
21. Sub-station wise separate list of applications will be prepared. The LoA will be issued in accordance with the capacity of the sub-station.
22. The COD will be considered as the date of commissioning.

Eligibility Terms & Conditions

23. The solar PV power plant capacity to be allocated is 1MW, 1.5MW or 2 MW. SPGs having ownership of land in their name in the revenue record of the State Government since or before 31.08.2021. If it is transferred on will/succession basis, then the time of holding of the land of the person from whom land has been transferred shall be since/or 31.08.2021.
24. Minimum land requirement is 4.5 acres for 1 MW, 6.75 acres for 1.5 MW and 9 acres for 2 MW. The land should be consolidated at one place so that there may not be any difficulty for setting up the plant.
25. The applicant has to present a certificate issued by the village patwari that SPG has the ownership and eligibility, and that the land is free from all disputes and does not fall in Section 4 of Forest Act.
26. Further, the applicant also has to submit the non-encumbrance certificate issued by Dept. of Revenue, Punjab.
27. SPGs or its members/partners/directors are eligible to apply only for one SPP for a particular sub-station and they cannot apply jointly and/or individually for another power plant for that substation. The applications of such applicants will be rejected if the proprietor/partner/director/member of the SPG has also submitted application for another power plant for that substation.
28. The SPG shall also obtain all necessary clearances as required for setting up of the power plants as mentioned in the PPA.
29. The Allottee/SPG can implement the project through SPV (100% owned company) subject to that the SPV shall be formed under Companies Act 2013 before the signing of the IA.
30. The allottee has to submit a certificate of the CA certifying the net worth along with a certified copy of Bank Statement of the company and return of allotment of equity shares on the date not more than 7 days prior to signing of IA. The allottee has to transfer/lease out the land in the name of the company.
31. If the SPG is not able to arrange the required equity then they can opt for developing the SPP through a developer which will then be considered SPGs and PEDDA will sign the IA with such an SPG. The land owner will get lease rent as agreed between the parties in this case.
32. The lease rent may be in terms of Rs. per year per acre of land or in terms of Rs per unit energy generated by the plant. The farmer may opt for payment of lease rent directly into his bank account by PSPCL deducted from the payments to be made to the developer.
33. A copy of the land lease agreement has to be mutually finalized, duly executed and notarized shall be submitted to PEDDA before the signing of the IA.
34. The allottee has to decide the manner (in their own name/by forming a company/through the developer mode) in which they want to setup the plant within 7 days of the issue of LoA, complete the formalities and submit the same to PEDDA before signing of IA.
35. The timeline for signing the IA and PPA will have to remain the same, i.e., within one month and two months from the date of the LOA.

36. The net worth of the developer should be not less than Rs. 1 Cr for 1 MW, Rs. 1.5 Crores for 1.5 MW and Rs. 2 Crs for 2 MW capacity according to the financial statements of FY 2019-20. The developer shall provide the details of computation of net worth duly certified by statutory auditor. certified copies of balance sheet, profit & loss account, cash flow and bank statement for the FY 2019-20 shall be submitted. This will be along with a request for permission to setup the project through developer in support of net-worth and for confirmation of balance in cash & bank.
37. The SPG will submit a copy of the detailed project report (DPR) of the project submitted to the Financial Institution for financial closure to the PEDDA within 6 months from the issue of LoA.
38. All applicable CERC/PSEER/CEA regulations and applicable guidelines of MNRE/PSPCL shall be adhered by the SPG.
39. After completion of 25 years, the SPG and PSPCL can extend the period of PPA on mutually agreed terms and conditions. In case of no further extension of PPA, SPG can convert the land back to agriculture land and avail the existing facilities for irrigation purpose.

Schedule IV

Haryana Summary of Instructions & Information

1. UHBVN and DHBVN invites substation wise expression of interest for SPG.
2. SPG for setting up of decentralized grid connected ground / stilt mounted solar power plant of capacity 500KW to 2MW under PM Kusum Scheme, to connect to respective 33/11 KV sub-station of rural areas notified by Haryana Discoms.
3. The Solar Power Plant will be installed preferably within 5km radius of respective 33/11KV substation.
4. The solar power generations will be purchased by Discoms at a pre-fixed levelized tariff of Rs. 3.11/kWh determined by HERC in Order dated 20.12.2019.
5. In case the SPG not able to arrange equity required for setting up the Solar Power plant, they can opt for installing the Solar Power Plant through developer(s).
6. The land owner will get lease rent as mutually agreed between the parties. The ease rent may be in terms of Rs per year per acre of land or in terms of as per unit energy generated per acre of land or in terms of Rs per unit energy generated per acre of land area.
7. The terms of the Land lease Agreement may be finalized on mutual consent of concerned parties.
8. Such Developers who have signed lease agreement with the ("SPG") for setting up of solar power plant can also apply under the Scheme.
9. SPG will not be allowed to apply for more than one Solar Power Plant for a particular 33/11kV substation.
10. Eligible applicants can download the instructions and application form (Form- A) from the online web portal of Haryana Discoms and submit their registration for setting up of Solar Energy Plant or Leasing of land for setting up of Solar Energy Plant.
11. SPG who are willing to lease/ rent their land for setting up of solar power plant by developer shall ensure their registration on the UHBVN / DHBVN.
12. The list of such applicant desirous to lease their land for setting up solar energy plant under the scheme will be displayed on UHBVN / DHBVN website.
13. Developers willing to participate in EOI to setup solar power plants on lease land should have signed lease agreement with the land owner or with any of the eligible applicants who have registered themselves on UHBVN / DHBVN website for leasing out their land.
14. SPG will submit the EOI for setting up Solar Plant in Form-A, on the website of the UHBVN / DHBVN.
15. The SPGs may seek assistance for online submission from Sub Divisional Office / Executive Engineer Office falling nearest to the notified 33/11 KV substation of UHBVN / DHBVN.
16. SPG will get Registration ID which is to be secured by the SPG for the future correspondence.
17. SPG shall develop the necessary land and related infrastructure set up the solar power plant and ensure timely completion of project and connectivity of the solar power plant from 33/11 KV substation as per the prescribed time lines.
18. SPG shall submit all necessary documents related to the ownership of land.
19. SPG shall obtain all necessary approvals and consent for related document from the appropriate authorities.
20. The design, construction, completion, testing and commissioning of the project will be carried out by the SPG.
21. To supply the power generated continuously to the distribution corporation during the period of 25 years stipulated in the contract.
22. SPG will ensure adequate arrangements for interconnecting solar power plant, metering point, delivery point with feeding 33/11 KV substation.
23. The solar power projects shall be ensured to be free from any outage during the contract period.
24. Application for setting up of solar power plant having capacity 500KW to maximum 2 MW can be applied under the Scheme.
25. The land requirement for setting up a solar power plant shall be 4 Acres per MW.

26. SPGs having their own land or have land lease agreement shall be eligible for participating under this scheme.
27. Developer desirous to set up the solar power plant on leased land shall meet one of the following eligibility criteria:
 - i. A Company registered under the Indian Companies Act, 1956 amended from time to time OR,
 - ii. Consortium having one member is as Lead Member (having 51% of shareholding), shall get it register under the Companies Acts, 1956 after getting selected as SPG under Scheme OR,
 - iii. Limited Liability Company OR,
 - iv. Partnership Company OR,
 - v. Registered Proprietorship Company
28. Leasing of land will be a bi-partite agreement between the farmer and the developer and Discoms will not be held responsible for the failure in getting the land leased out to a developer.
29. If a Developer is setting up of Solar Power Plant on leased land, his Net worth shall not be less than Rs. 1.00 Crore per MW
30. The Developer shall submit the requisite document in support of the same duly certified from Chartered Accountant.
31. A non-refundable application fee of Rs 5000 per MW of the applied capacity shall be submitted by the applicant through online Mode on the UHBVN / DHBVN website.
32. Earnest Money Deposit (EMD) of Rs. One lakh/MW in form of Bank Guarantee with a validity at least for a period of 6 months. EMD of the applicants not selected under the scheme shall be returned within 15 days from the date of issuance of LOA.
33. Successful participant shall have to submit Performance Bank guarantee (PBG) of Rs 5 lakh/MW within 30days from the date of issuance of Letter of Award (LOA).
34. LOA will be issued to the applicants and the electricity produced from the solar plant will be purchased by the Discoms at pre-fixed tariff of R 3.11 per kWh determined by the Haryana Electricity Commission (HERC) vide Order dated 20.12.2019.
35. Selection of the bidders will be on the lowest tariff offered in the ascending order as quoted by the bidder in the e-reverse auction.
36. The EOI of an SPG will also be disqualified if it is found that its proprietor / partner / director / member has also filed EOI as proprietor / partner / director / member for another SPG for the same substation.
37. MNRE has allocated a total capacity of 10MW for UHBVNL and 15MW for DHBVNL in FY 2019-20 for all the substations under component 'A' of the KUSUM Scheme.
38. Power Purchase Agreement shall be signed by SPG with the UHBVN / DHBVN within a period of two months from the date of issuance of LOA.
39. PPA shall be for a period of 25 years from the Commercial Operation Date (COD) of solar power plant.
40. PPA can be extended beyond the period of 25 years with mutual consent of SPG and UHBVN/DHBVN.
41. As a measure of payment protection, UHBVN/DHBVN shall provide letter of Credit (LC) and ESCROW account to SPG as per the terms and conditions specified in the PPA.
42. Electricity purchased from these solar power plants will be accounted by UHBVN/DHBVN to meet Renewable Purchase Obligation.
43. SPG will be free to adopt any technology based on solar energy.
44. SPG shall complete the Project Financing Arrangements for its Project and shall provide relevant documents to UHBVN/DHBVN in this regard within six Months from the date of issuance of LOA.
45. It is mandatory for SPG to maintain Capacity Utilization Factor (CUF) of at least 15% annually during the entire period of PPA.
46. SPG should commission the Solar Plant within the period of 9 months from the date of issuance of LOA by UHBVN/ DHBVN.
47. Commercial Operation Date (COD) shall be considered as the actual date of commissioning of the solar power plant as declared by the Commissioning Committee of UHBVN/DHBVN.

48. State Nodal Agency (SNA) will coordinate with States/UTs, DISCOMs and farmers for implementation of the scheme.
49. SNA will assist the farmers in project development activities.
50. SNAs shall ensure publicity of the scheme and create awareness through advertisements etc., and monitor the implementation of the scheme.
51. SPG shall participate in the selection process to be carried out by DISCOMs. In case of selection, they have to sign PPA and install the plant as per provisions of these guidelines and applicable rules and regulations.

DISCLAIMER

1. We have undertaken a study to provide insights into land regulations in the context of Agriphotovoltaics projects (“**AgriPV**”) development in Uttar Pradesh, Punjab and Haryana (“**Identified States**”) on behalf of and solely for IGEF.
2. The key objective for undertaking this study for IGEF are as follows:
 - (i) To review applicable legislations related to implementation of a private sector commercial AgriPV project of up to 10 MW.
 - (ii) To provide legal study detailing the process and steps necessary to develop an AgriPV project as per the rules and regulations in the Identified States.
3. Our views, opinions and observations are limited to the laws of India and we have not opined on any other laws / policies.
4. We express no opinion as to the consequence or application of any law existing and applicable after such date, and decline any continuing obligation after the date of this Report to advise on any changes in the foregoing or any change of circumstances of which we may become aware that may affect our observations contained herein.
5. This Report has been prepared on the basis of information available in the public domain. We have not engaged in any formal discussions and / or filed any representation before / with any Governmental Authority / Department.

For and on behalf of **ATLAS LAW PARTNERS**

NITI PAUL

PARTNER



Legal assessment of AgriPV in Rajasthan

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1. OVERVIEW OF LAWS RELATED TO AGRICULTURAL LAND IN RAJASTHAN

Rajasthan is the largest state of India as per the geographical area. It is located in the Western part of the country which gets the sunlight almost the entire year round, except the monsoon season which is limited to less than a month. Due to the climatic conditions, one of the major challenges for farmers in this state is heavy reliance on rains for sowing their crops and in most parts of the State, at most, two crops are harvested which leaves the land fallow for a substantial period of time. Given the prevailing climatic conditions, Rajasthan has a solar potential of 142GW, as assessed by the Government of Rajasthan.¹

There are two basic laws governing agricultural lands in Rajasthan viz. The Rajasthan Tenancy Act, 1955 [hereinafter referred to as “Tenancy Act”] and The Rajasthan Land Revenue Act, 1956 [hereinafter referred to as “Land Revenue Act”].

1.1 Tenancy Act

In 1955, in order to assimilate various land laws in Rajasthan, the Rajasthan Tenancy Act, 1955 came into force with the primary objective of defining the rights and obligations of agricultural tenants and farmers in Rajasthan. As per Section 142 of the Tenancy Act, there are four types of tenants:

1. Khatedar Tenants,
2. Gair Khatedar Tenants,
3. Maliks, and
4. Tenants of Khudkasht.

The majority of farmers in Rajasthan fall under the first category - Khatedar tenants. These are the tenants whose names are entered in the Revenue Records which is also called the Jamabandi.³ The Jamabandi is a register maintained by the Revenue Authorities - mostly by the Tehsildar, in which names of persons who are the owners (tenants) of land is mentioned.

Other types of tenants are temporary tenants whose names are entered on a temporary basis but the system of having other types of tenants (second, third and fourth) is discouraged and they continue to exist in the Tenancy Act for broadly an academic purpose.

There are certain limitations to Khatedari rights, which is mentioned in Section 164 of the Tenancy Act. Rights cannot accrue on any person if the land is pasture land, public lands - such as canal, river bed, the land being used for shifting agriculture, forest etc. These limitations have been put in place because all lands that are not falling in the four categories of tenants, are owned by the State of Rajasthan. These lands are called Sawai Chak.

The State Government also has the power to declare, by notification, lands which are to be included under Section 16 of the Tenancy Act.

¹ Rajasthan Solar Energy Policy, 2019, Government of Rajasthan, Preface, <https://energy.rajasthan.gov.in/content/dam/raj/energy/rrecl/pdf/Home%20Page/Rajasthan%20Solar%20Energy%20Policy2019.pdf>

² Mathur & Mathur, Tenancy Law in Rajasthan (9th ed.), Rajasthan Tenancy Act, 1955, Section 14 Page 71

³ Jamabandi, Apna Khata, Government of Rajasthan, <https://apnakhata.raj.nic.in/LrclLogin.aspx>

⁴ Mathur & Mathur, Tenancy Law in Rajasthan (9th ed.), Rajasthan Tenancy Act, 1955, Section 16 Page 99

The primary rights of tenants have been granted⁵ by the Tenancy Act which inter alia include -

1. Right to a residential house,
2. Right to written lease and counterpart,
3. Attestation of leases in lieu of registration,
4. Transferability of khatedar's interest,
5. Right to mortgage the property, and
6. Right to let or sublet.

These primary rights are important to note because this forms the basis of the use of land for other purposes such as use for the generation of renewable energy.

The types of land in Rajasthan include the following types:⁶

1. **Nehari (Artificially irrigated):** This characterisation is for lands that fall in the catchment area of a major or minor irrigation project in Rajasthan.
2. **Chahi (Well Irrigated):** This includes the lands which are irrigated using groundwater, ponds etc. but does not include lands in the Nehri category.
3. **Barani (Unirrigated):** The lowest category of land for yield which is not irrigated but totally dependent on seasonal rain. However, this land is cultivable. Majority of lands in Rajasthan fall in this category.
4. **Banjar (Fallow):** Lands that are not being used for any purpose and this includes desert areas as well.

Each District and Sub-Division has its own characterisation of land-based on local conditions, however, the broad classification is - Nehari, Chahi, Barani, Fertile Zone, Semi Fertile Zone, Hilly Zone, Semi Desert Zone and Desert Zone. There is no uniform manner of classification but the factors such as - rainfall in the area, irrigation methods and local conditions are required to be considered for the classification. Based on the classification, the rate of rent and ceiling limit of land is fixed.

Another important aspect which the Tenancy Act prescribes is the mechanism for the succession of tenants and division of holdings⁷. It is pertinent to mention that given the recent Supreme Court⁸ decision related to females being rights in ancestral property - there is a huge surge in the number of cases related to succession. The succession is governed as per personal law.

From the perspective of developing renewable energy resources, section 42 of the Tenancy Act provides that -

1. The tenant has a right to mortgage their land under certain circumstances.
2. Make improvements in his holding by - any work which adds materially to the value of the holding and which is consistent with the purpose for which it was let.
3. Construct a house for his own occupation, shed or store or any other construction for agricultural purposes.

1.2 Land Revenue Act

From an administrative and legal perspective, the State has been divided into seven Divisional headquarters. Each division is headed by the Divisional Commissioner. Each Divisional headquarters has four or more districts and each district is headed by a District Collector. Each district has various Sub-Divisions, which are headed by Sub-Divisional Officers (SDO). The Sub-Divisions are divided into various Tehsils, headed by a Tehsildar. The above-mentioned officers are under the direct supervisory control of the Department of Revenue - which is a department of the State of Rajasthan, generally headed by a Principal Secretary or an Additional Chief Secretary.⁹

⁵ Mathur & Mathur, Tenancy Law in Rajasthan (9th ed.), Rajasthan Tenancy Act, 1955, Section 31-37 Page 154-176

⁶ The Accountant General (Economic & Revenue Sector Audit) Rajasthan, Jaipur, Revenue Audit Manual, Page 16-17, <https://cag.gov.in/uploads/media/REV-ENUE-AUDIT-MANUAL-LAND-REVENUE-20200929122511.pdf>

⁷ Mathur & Mathur, Tenancy Law in Rajasthan (9th ed.), Rajasthan Tenancy Act, 1955, Section 40, Succession to Tenants - When a tenant dies intestate, his interest in his holding shall devolve in accordance with the personal law to which he was subject at the time of his death, Page 181

⁸ Vineeta Sharma v. Rakesh Sharma & Ors., Diary No. 3206 OF 2018, Supreme Court Judgement Dated 11.08.2020, https://main.sci.gov.in/supremecourt/2018/32601/32601_2018_33_1501_23387_Judgement_11-Aug-2020.pdf

⁹ Mathur & Mathur, Law of Land Revenue in Rajasthan (4th ed.), Rajasthan Land Revenue Act, 1956, Section 15 Page 63

The Revenue Department exercises supervisory authority over all revenue officers. In cases of judicial matters arising out of the Tenancy Act or the Land Revenue Act, the Board of Revenue is the highest court of appeal. The Board of Revenue is an independent quasi-judicial authority and it has been given the powers and functions as per the provisions of the Land Revenue Act.

Table 1: Hierarchy of Revenue Officers in Rajasthan

Additional Chief Secretary/ Principal Secretary, Revenue Department Secretary	Divisional Commissioner	District Collector	Sub-Divisional Officer	Tehsildar	Inspector Land Records	Patwari
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Table 2: Hierarchy of Revenue Courts in Rajasthan

Board of Revenue	Revenue Appellate Authority	Divisional Commissioner	District Collector	Sub-Divisional Officer	Tehsildar
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1.3 Conversion Rules

The power to exercise control over the use of land is also given to the revenue officers and it is exercised on the basis of notifications issued by the Revenue Department from time to time. One of the important rules which have an implication on solar power generation is the Rajasthan Land Revenue (Conversion of agricultural land for non-agricultural purposes in rural areas) Rules, 2007¹⁰. Any agricultural land in a rural area can only be used for agricultural purposes unless a proper application has been made under the provisions of the Rules. Rule 3 provides for the purposes for which any agricultural land may be converted in a rural area. The relevant portion is reproduced for reference:

“Rule 3. Purposes for which Agricultural land may be converted.– Any agricultural land held in the Khatedari tenancy of the applicant, may be converted in rural area for the following purposes:–

.
.

(xi) Solar farm/Solar Plant/Solar Power Plant, Wind Farm/Wind power plant.”

In order to promote generation of electricity using renewable sources, Rule 6B was introduced in the Rules which states the following:

“6B. Use of khatedari land for Solar Farm/Solar Plant/Solar Power Plant. Wind farm/Wind Power Plant.–

Notwithstanding anything contained in these rules, a khatedar tenant may use or sublet his khatedari land for Solar Farm/Solar plant/Solar Power Plant, Wind farm/Wind Power plant and no conversion shall be required for such use. The area, so used, shall remain in his khatedari but the khatedar tenant shall inform 30 days before such intended use of land to Tehsildar and the Rajasthan Renewable Energy Corporation in Form E. The Tehsildar shall put a note in Jamabandi regarding such use of land after receiving such information which shall remain on record till such use.

Provided that any person who holds or acquires land in the excess of ceiling area applicable to him with the prior permission of the State Government or authority appointed in this behalf under the Rajasthan Imposition of Ceiling on Agricultural Holdings Act, 1973, may use such land for Solar Farm/Solar Plant/Solar Power Plant, Wind farm/Wind Power Plant after obtaining the prior approval of the State Government.]

Provided further that if any khatedar tenant desires for conversion of agricultural and for Solar farm/Solar Plant/Solar Power Plant, Wind Farm/Wind power plant he may submit an application complete in all respects in Form-A along with the documents prescribed therein and proof of deposit of conversion charges to the prescribed authority. On receipt of completed application the prescribed authority may issue conversion order in the manner prescribed in rule 9.”

¹⁰ Rajasthan Land Revenue (Conversion of agricultural Land for non-agricultural purposes in rural areas) Rules, 2017, <https://landrevenue.rajasthan.gov.in/content/dam/landrevenue/revenuedepartment/Rules/conversion%2017-05-2019.pdf>

Rule 911 provides for the procedure to be followed for conversion of land:

9. Prescribed Authority for conversion. - (1) A khatedar tenant, seeking permission for conversion of agricultural land for any non-agricultural purpose shall submit an application online or in physical format to the authority prescribed below in Form-A along with the documents specified therein and a copy of receipt as proof of the payment of amount of conversion charges. If application is submitted online than hard copy of complete application shall also be required to submit within 7 days to the prescribed authority:

(j) Solar farm/Solar Plant/Solar Power Plant, Wind Farm/Wind Power Plant

- (i) Sub Divisional Officer - Where total area does not exceed 50,000 sq. meters.
- (ii) Collector - Where total area does not exceed the ceiling area.
- (iii) State Government - All cases where the total area exceeds the ceiling area.

Rule 712 provides for conversion charges payable to the State Government when any land is converted from agricultural to non-agricultural land:

7. Conversion charges. - The premium payable for conversion of agricultural land for non-agricultural purposes, for the area not covered by rule 5, 6, 6A, 6B and 6C, shall be as under:

Purpose	Rate
(iv) Industrial Area / Industrial Purpose / Industrial Estate	Rs. 5/- per sq.mt. or 5% amount mentioned of the DLC rate of agriculture land, or 5% amount of the purchase rate of that agriculture land as mentioned in the registered sale deed, if any, whichever is higher
(xi) Solar farm/ Solar Plant/ Solar Power Plant, Wind Farm/Wind power plant	10% of the rate prescribed for industrial purpose

11 Rajasthan Land Revenue (Conversion of agricultural Land for non-agricultural purposes in rural areas) Rules, 2017, Rule 9, Internal Page 9, <https://landrevenue.rajasthan.gov.in/content/dam/landrevenue/revenuedepartment/Rules/conversion%2017-05-2019.pdf>

12 Rajasthan Land Revenue (Conversion of agricultural Land for non-agricultural purposes in rural areas) Rules, 2017, Rule 7, Internal Page 6, <https://landrevenue.rajasthan.gov.in/content/dam/landrevenue/revenuedepartment/Rules/conversion%2017-05-2019.pdf>

1.4 Ceiling Act

Until 1973, Chapter III of the Tenancy Act provided for ceiling limits for land in Rajasthan which was changed with the enactment of the Rajasthan Imposition of Ceiling on Agricultural Holding Act, 1973. The Act provides for ceiling limits for various categories of land (as mentioned above) and the ceiling limit. Any area which is held by a person, in excess of ceiling area, will be considered as agricultural land owned by the State Government, after following the due process of law provided in the Ceiling Act. For large scale projects, it is often seen that the ceiling area limit is breached and permission is required to be taken from the State Government seeking exemption from the ceiling limits.

The ceiling limits are prescribed under Section 4 of the Act and they are subject to change by notification from the government from time to time. The general ceiling limit for land which has assured irrigation and is capable of growing two crops in a year is 18 acres per family

2. OVERVIEW OF POWER SECTOR AND RENEWABLE ENERGY IN RAJASTHAN

The governing ministry in the Government of Rajasthan which exercises administrative and budgetary powers over all the government entities is the Energy Department.¹³ There are five main entities that are under the direct control and supervision of the energy department:

1. Rajasthan Rajya Vidyut Utpadan Nigam Limited [RVUNL]:¹⁴ The operation and maintenance of the Rajasthan State-owned power stations fall under the ambit of this Company.
2. Rajasthan Rajya Vidyut Prasan Nigam Limited [RVPNL]:¹⁵ This Company is responsible for the setting up of transmission lines and sub-stations for maintenance of an efficient supply of electricity in the State.
3. Rajasthan Rajya Urja Vikas Nigam Limited [RUVNL]:¹⁶ It is responsible for the business of trading power.
4. Rajasthan Renewable Energy Corporation Limited [RRECL]:¹⁷ Formed after the merger of Rajasthan Energy Development Agency (REDA) and Rajasthan State Power Corporation Limited (RSPCL), RRECL is the State Nodal Agency for promoting and developing non-conventional energy sources in the State and acts as a State Designated Agency (SDA) for enforcement of provisions of the Energy Conservation Act, 2001.
5. Power Distribution Companies / (DISCOMs): They are responsible for setting up a distribution network for electricity. They are required to maintain the standards and procedures as prescribed by the Electricity Act, 2003 as well as guidelines issued by the RERC.
 - a. Jaipur Vidyut Vitran Nigam Limited [JVVNL]¹⁸
 - b. Ajmer Vidyut Vitran Nigam Limited [AVVNL]¹⁹
 - c. Jodhpur Vidyut Vitran Nigam Limited [JdVVNL]²⁰

In addition to the government entities, Rajasthan Electricity Regulatory Commission [RERC]²¹ acts as an independent regulatory body for the State of Rajasthan. The primary objectives and jurisdiction of the RERC are mentioned as per the mandate given by the Electricity Act, 2003. A list of major functions exercised by the RERC is as follows:

Firstly, upon data being provided by the DISCOMs, the RERC decides the standards for supply of electricity including but not limited to tariff for supply of electricity for various categories of consumers.

¹³ Rajasthan Energy Department, Government of Rajasthan, <https://energy.rajasthan.gov.in/content/raj/energy-department/department-of-energy/en/home.html#>

¹⁴ Rajasthan Rajya Vidyut Utpadan Nigam Limited, Government of Rajasthan, <https://energy.rajasthan.gov.in/content/raj/energy-department/rvunl/en/home.html#>

¹⁵ Rajasthan Rajya Vidyut Prasaran Nigam Limited, Government of Rajasthan, <https://energy.rajasthan.gov.in/content/raj/energy-department/rajasthan-rajya-vidyut-prasaran-limited/en/home.html#>

¹⁶ Rajasthan Rajya Urja Vikas Nigam Limited, Government of Rajasthan, <https://energy.rajasthan.gov.in/content/raj/energy-department/rajasthan-urja-vikas-nigam-ltd-/en/home.html#>

¹⁷ Rajasthan Renewable Energy Corporation Limited, Government of Rajasthan, <https://energy.rajasthan.gov.in/content/raj/energy-department/rrecl/en/home.html#>

¹⁸ Jaipur Vidyut Vitran Nigam Limited, Government of Rajasthan, <https://energy.rajasthan.gov.in/content/raj/energy-department/jaipur-vidyut-vitran-nigam-ltd-/en/home.html#>

¹⁹ Ajmer Vidyut Vitran Nigam Limited, Government of Rajasthan, <https://energy.rajasthan.gov.in/content/raj/energy-department/awnl/en/home.html#>

²⁰ Jodhpur Vidyut Vitran Nigam Limited, Government of Rajasthan, <https://energy.rajasthan.gov.in/content/raj/energy-department/jodhpur-vidyut-vitran-nigam-limited/en/home.html#>

²¹ Rajasthan Electricity Regulatory Commission, Government of Rajasthan, <https://rerc.rajasthan.gov.in/>

Secondly, lays down guidelines and mechanisms for the introduction of new energy sources and their integration with the existing electricity distribution and manufacturing network. This includes laying down guidelines for rooftop solar, open access regulations, net metering regulations etc.

Thirdly, it acts as an independent dispute resolution body for disputes arising between generating companies and distribution companies through agreements for the purchase of power within the state of Rajasthan.

Fourthly, as per the provisions of the Electricity Act, it also acts as an Advisory Body on issues related to the power sector in Rajasthan. This includes undertaking independent studies and audits upon instructions on the State Government.

2.1 Rajasthan Solar Energy Policy

The development of the solar energy sector in the State of Rajasthan requires coordination between two main departments viz. The revenue department and the energy department. Due to the overlapping of various provisions of law and lack of one comprehensive legislation governing solar energy, the State Government under the aegis of RRECL has published the Rajasthan Solar Energy Policy, 2019.²² The salient features of this document are as follows:

1. It is not legislation and it is merely an aspirational document. The contents of the Rajasthan Solar Energy Policy have to be enforced by bringing about various changes in the law, regulations, notifications by suitable methods given the respective legislations. Each department has been entrusted with the responsibility to ensure that the contents of the Solar Policy are effected, by bringing suitable changes in through their respective departments.
2. The policy document clearly states that RRECL shall act as a Nodal Agency for effective coordination between the departments.
3. The contents of the Solar Energy Policy will be a guiding principle for the RERC - which is the State's energy regulator.

The broad structure of the Solar Policy can be divided into two parts:

1. Project-based provisions and incentives²³
There are five types of projects that the Rajasthan Solar Policy recognises which include:
 - a. Rooftop PV Solar Power Systems
 - b. Decentralised Grid Connected Solar Power Systems
 - c. Off-Grid Solar Applications
 - d. Utility Grid Power Projects
 - e. Solar Projects with Storage Systems
2. Registration and Approvals²⁴
For better coordination and reduced turnaround time for all approval of solar projects, two committees have been formed by the State Government. The committees are called the - State Level Screening Committee (SLSC) and State Level Empowered Committee (SLEC). For projects with large scale investment, the SLEC has been empowered to issue clearances.

For other projects, SLSC has the jurisdiction to issue appropriate approvals, as per the Rajasthan Solar Policy.

²² Rajasthan Solar Energy Policy, 2019, Government of Rajasthan, <https://energy.rajasthan.gov.in/content/dam/raj/energy/rrecl/pdf/Home%20Page/Rajasthan%20Solar%20Energy%20Policy2019.pdf>

²³ Rajasthan Solar Energy Policy, 2019, Government of Rajasthan, Page 17 <https://energy.rajasthan.gov.in/content/dam/raj/energy/rrecl/pdf/Home%20Page/Rajasthan%20Solar%20Energy%20Policy2019.pdf>

²⁴ Rajasthan Solar Energy Policy, 2019, Government of Rajasthan, Page 25 <https://energy.rajasthan.gov.in/content/dam/raj/energy/rrecl/pdf/Home%20Page/Rajasthan%20Solar%20Energy%20Policy2019.pdf>

Table 3: Constitution of Committees under the Rajasthan Solar Energy Policy²⁵

State Level Screening Committee	State Level Empowered Committee
Principal Secretary / Secretary, Energy, Government of Rajasthan [Chairperson]	Chief Secretary, Government of Rajasthan [Chairperson]
Chairman & Managing Director, RVPN	Principal Secretary / Secretary, Revenue
Managing Director, RREC	Principal Secretary / Secretary, Energy
Managing Director, DISCOM	Principal Secretary / Secretary, Water Resources Department
Director (Finance), RREC	Chairman, RREC
Director (Technical), RREC	CMD, RVPN
	Principal Chief Conservator of Forest, Forest Department
	District Collector of the concerning district
	MD, RREC

3. LEGAL REQUIREMENTS OF PERMITS / LICENSES TO ESTABLISH A MULTI-MW (1 - 10 MW) SIZE SOLAR PROJECT IN RAJASTHAN ON AGRICULTURAL LAND

The procedure for seeking approvals is prescribed in the Rajasthan Solar Energy Policy, 2019. The Nodal Agency for setting up a solar power plant in Rajasthan is the RREC. The following procedure is to be followed for the establishment of a 1-10MW project:

3.1 Registration of the Company with RREC.²⁶

Each company that wishes to set up a solar power plant will have to get itself registered with the nodal agency. The documents which are sought at the time of the registration are as follows:

1. Certified copy of the constitutional documents of the company in which generation of power from renewable sources should be the main object of the company.
2. A valid power of attorney in favour of an authorised person to sign the documents.
3. Copy of PAN for Income Tax purposes.
4. Annual Audited accounts of the company for the last three years and un-audited accounts for the current financial year.
5. Document showing net worth of the company in the prescribed format. The net worth of the company should be more than Rs. 1 crore/MW in case of projects under the Open Access Scheme.
6. Power Purchase Agreements in case of direct sale to the third party.

3.2 In-Principle Consent

The State Government has formed two committees - SLSC and SLEC for granting approvals to new solar projects in Rajasthan. For projects which are falling in the category of 1MW to 10MW, the approval will be given by the SLSC which is headed by the Principal Secretary, Energy, Government of Rajasthan. However, all the documents will be forwarded to the SLSC by the Nodal Agency - RREC. For seeking in-principle consent, the following documents are needed:

1. **Details of Land:** The new solar power developer will have to identify and provide Khasra wise details along with a copy of the Jamabandi of the land for setting up the project. Intimation by the tenant to the RREC or Tehsildar in 'Form - E'²⁷ as per the Rajasthan Land Revenue (Conversion of agricultural land for non-agricultural purposes in rural areas) Rules, 2007 will also be required to be annexed along with the application.

²⁵ Rajasthan Solar Energy Policy, 2019, Government of Rajasthan, Clause 17 Page 30 <https://energy.rajasthan.gov.in/content/dam/raj/energy/rrec/pdf/Home%20Page/Rajasthan%20Solar%20Energy%20Policy2019.pdf>

²⁶ Rajasthan Renewable Energy Corporation Limited, Government of Rajasthan, <https://energy.rajasthan.gov.in/content/raj/energy-department/rrec/en/home.html#>

²⁷ Rajasthan Land Revenue (Conversion of agricultural Land for non-agricultural purposes in rural areas) Rules, 2017, Form - E, Internal Page 26 <https://>

2. **Proposed Power Evacuation Plan:** The solar power developer will have to mention how the power will be evacuated from the project. This includes an assessment of the existing power distribution network of the DISCOM as well as the network of the RVPN.
3. **Power Purchase Agreement:** The developer will also submit a copy of the Power Purchase Agreement when seeking in-principle consent.

Upon receiving these documents, the RREC will forward the documents to the SLSC for seeking in-principle consent. The SLSC may raise queries that will have to be answered before consent is granted.

3.3 After in-principle consent

The steps to be followed after the in-principle consent is granted is as follows:

1. **Submission of Security Deposit:** The developer will have to submit a security deposit of Rs. 10,00,000 per MW in the form of a Bank Guarantee within one month from the date of issue of in-principle consent .
2. **Approval of Power Evacuation Plan:** A commissioning request is to be submitted to the Connectivity Committee formed by Chief Engineer, Rajasthan Discoms Power Procurement Centre (RDPPC). The RDPPC, after examining the current infrastructure and other technical aspects, prepares a report along with its recommendations.
3. **Commissioning Committee, RREC:** After the recommendations are received from RDPPC, the commissioning committee of RREC takes a decision and forwards its recommendations to the SLSC.

3.4 Final Approval

On the basis of the recommendations from RREC, connectivity report from RVPN and after examining details of land etc, the final approval is granted by SLSC for projects up to 10 MW. In case there is any deficiency, the matter may be referred back to the RREC for further evaluation.

3.5 Post-Final Approval

After the final approval is granted, an application is required to be submitted to the Energy Department, Government of Rajasthan under Section 68 of the Electricity Act, 2003 for laying the transmission line up to the Grid Sub-Station of RVPN or DISCOM for which the power evacuation plan has been granted. The relevant portion of Section 68(2) is reproduced as follows:

Section 68. Overhead Lines

(1) An overhead line shall, with prior approval of the Appropriate Government, be installed or kept installed above ground in accordance with the provisions of sub-section (2).

The commissioning of the project can start after the said approval has been granted by the Energy Department. It is pertinent to note that there is no separate requirement for seeking construction approval either from the government or any local authority.

4. LIST OF BARRIERS FOR AN AGRIPV PROJECT TO BE INSTALLED ON AGRICULTURAL LAND FOR ADDITIONAL LARGE-SCALE SOLAR GENERATION CO-LOCATED WITH AGRICULTURE. ANALYSE THE POSSIBILITY FOR A NEW, COMMERCIAL OR HYBRID CATEGORY FOR AN AGRIPV PROJECT, SO THAT POWER GENERATED FROM IT MAY EITHER BE USED BY FARMER HIMSELF OR SOLD THROUGH GOVERNMENT UTILITY, THROUGH PPA.

The Indian Government has set an ambitious goal of achieving 100GW of installed capacity of solar photovoltaics by 2022 in response to the global consensus to reduce carbon footprint.²⁹ With agriculture being the main source of employment for people in Rajasthan, the co-development of solar power projects with agriculture will go a long way in ensuring that energy needs are met in a sustainable manner. There are, however, some bottlenecks for developing a large scale solar generation along with agriculture which is highlighted in the subsequent paragraphs. The major legal bottlenecks can be divided into two main categories:

- A. Land related issues
- B. Procedural issues for setting up a solar power plant

In order to better understand the bottlenecks, it is important to note that AgriPV is a relatively new concept for Rajasthan and this category of projects find no mention in any legislation, policy, notification or circular issued by the government.

4.1 Land Related Issues

The land-related issues that act as a bottleneck for an AgriPV project can be broadly classified as follows:

- A. Lack of a comprehensive policy on utilisation of land for AgriPV.
- B. Lack of reliable land records.

4.1.1 Lack of Comprehensive Policy

The Rajasthan Tenancy Act and the Land Revenue Act are legislations that primarily govern the use of land in Rajasthan. Both these legislations are more than 60 years old and the amendments in these provisions have been sporadic and mostly through subordinate legislation such as - notifications and circulars.

Firstly, the main issue arising due to this is that subordinate legislations are subject to change very swiftly and it does not create a sustainable environment for attracting investment for large scale development.

Secondly, the Acts do not even mention renewable energy because it was not even envisaged when the Acts were enacted by the legislature. Due to this, there are just two types of land uses which have been mentioned in the Tenancy Act - Agricultural Purpose and Non-Agricultural Purpose. All lands are bundled in these two categories and there is no possibility of land falling in both categories (like for example, in the case of AgriPV).

Thirdly, for using any land for solar power development, recourse has to be taken to the Conversion Rules. The Conversion Rules (6-B) stipulates that no conversion is needed if the land is being used for solar power development, but in effect, the Rules only provide for an exemption from the procedure being followed for a normal conversion. The effect of Rule 6-B is that the land is still recorded as agricultural land but it is being used for a non-agricultural purpose. The non-agricultural use of the land itself takes it away from the ambit of agriculture which is one of the main bottlenecks for developing an AgriPV project. For all practical purposes and for the purposes of the revenue records, the land under the solar power project is a 'non-agricultural land'.

²⁹ National Solar Energy Federation of India, Agrivoltaics in India: An overview of operational projects and relevant policies (January, 2021), Page 9, https://www.energyforum.in/fileadmin/user_upload/india/media_elements/Photos_And_Gallery/20201210_SmarterE_AgroPV/20201212_NSEFI_on_AgriPV_in_India_1_01.pdf

4.1.2 Lack of Reliable Land Records

Land Revenue Act empowers the officers such as Tehsildar and Patwari to maintain land records and update them regularly. It is observed that most of the time, the land records are not reliable for the reasons mentioned below:

Firstly, the land records are often not updated. As per the provisions of the Tenancy Act, the land records are required to be changed (mutated) in case of the death of the tenant as per personal law.³⁰ Surprisingly, no time frame has been provided for this to happen and in almost all cases, the land records are not updated for years. This makes them unreliable for the purposes of large scale development as it is likely that land will either be under dispute and has the capacity to hamper the development of the project.

Secondly, due to reference to personal law for succession, all disputes are amenable to civil court's jurisdiction. The questions of succession often take years to get settled and the land in question is often rendered unusable for large scale development due to a lack of consensus between the parties.

Thirdly, the Supreme Court has recently held that females are also entitled to a share in the Hindu Undivided Family property.³¹ It is a landmark decision in the field of female empowerment. However, the local authorities are reluctant to include the names of females in the records and this causes difficulties if the land has been sold to a third party. It also poses problems in executing a lease deed on land by the solar developer because the actual owners of the land are often unknown and not available in the public domain.

Fourthly, the land records are not a record of possession. This causes a major problem in cases where the land is owned by a certain person and it is in possession of another person. Due to a lack of updated land records, the proposed lease deeds with the solar project developer is often delayed. In case, the agreement has been signed with the owner (tenant), taking possession of the land becomes another huge bottleneck.

Lastly, the land records are not digitalised. There has been an attempt to scan the records but it is not akin to being a digital record. There is no GIS mapping of the land and boundary disputes are often seen between the parties. This is a bottleneck, not only for AgriPV but also for other solar developments in the State of Rajasthan.

4.2 Procedural Issues for setting up an AgriPV Solar Development

There are several procedural issues that may arise in setting up a new AgriPV solar development. The legal procedural issues are highlighted below:

Firstly, Rajasthan Solar Energy Policy, 2019 is an aspirational document and guiding document for all government stakeholders for the development of solar energy in Rajasthan. As per Clause 33,³² the Solar Energy Policy also acts as a guiding document for the Rajasthan Electricity Regulatory Commission. However, the Solar Policy does not enlist AgriPV as its priority area. Schemes that have been given incentives include Rooftop PV, Electric Charging Stations, Mini Drinking Supply³³ System etc. Without a proper assessment by the State Government and effective support in the implementation, it would be difficult to set up an AgriPV project.

Secondly, the RREC (as per Clause 31)³⁴ has been given the responsibility to undertake studies in renewable energy for further policy interventions. This includes the assessment of analysing various suitable technologies and implementation models. However, at the time of this assessment, there is no study conducted by RREC for AgriPV solar projects. It is pertinent to mention that changes in the Solar Policy are made on the basis of recommendations by the RREC and in the absence of any study conducted, it is unlikely that AgriPV will find a mention in the next Solar Policy which is due in 2023. This is probably due to lack of awareness about the possibilities that AgriPV offers to farmers and solar development companies.

30 Mathur & Mathur, Tenancy Law in Rajasthan (9th ed.), Rajasthan Tenancy Act, 1955, Section 40 Page 181

31 Vineeta Sharma v. Rakesh Sharma & Ors., Diary No. 3206 OF 2018, Supreme Court Judgement Dated 11.08.2020, https://main.sci.gov.in/supremecourt/2018/32601/32601_2018_33_1501_23387_Judgement_11-Aug-2020.pdf

32 Rajasthan Solar Energy Policy, 2019, Government of Rajasthan, Clause 33 Page 43 <https://energy.rajasthan.gov.in/content/dam/raj/energy/rrecl/pdf/Home%20Page/Rajasthan%20Solar%20Energy%20Policy2019.pdf>

33 Rajasthan Solar Energy Policy, 2019, Government of Rajasthan, Clause 29 Page 41 <https://energy.rajasthan.gov.in/content/dam/raj/energy/rrecl/pdf/Home%20Page/Rajasthan%20Solar%20Energy%20Policy2019.pdf>

34 Rajasthan Solar Energy Policy, 2019, Government of Rajasthan, Clause 31 Page 42 <https://energy.rajasthan.gov.in/content/dam/raj/energy/rrecl/pdf/Home%20Page/Rajasthan%20Solar%20Energy%20Policy2019.pdf>

Thirdly, the procedural mechanism provided for a solar project promotes only large scale developments and does not support smaller developments. The developer has been given the responsibility to follow the six steps - registration, in-principle approval, land allotment & availability, power evacuation plan, final approval and permission under section 6835 of the Electricity Act. This is not possible for small scale developments, but it is pertinent to mention that in order to promote AgriPV projects and to build a consensus about its effective working, smaller projects, in tune with RooftopPV are required to be promoted. In RooftopPV, approval has to be taken by the developer on a one-time basis and it can install rooftop solar plants on various locations, without having to seek lengthy and time consuming approvals.

Fourthly, RREC is the State Nodal agency for promoting solar energy in Rajasthan. Given the specific aspects related to AgriPV and land, a standard lease document can be drafted and prepared, keeping in mind the recommendations of the revenue department and the energy department. There is a clear lack of a standard lease document which can be used by farmers when working with AgriPV solar power developers. A government approved lease agreement or model lease agreement would build a lot of confidence in farmers towards acceptability of the relatively new concept of AgriPV solar development.

4.3 The Way Forward

The first step would be to include AgriPV as one of the priority areas in the Rajasthan Solar Energy Policy. The introduction of AgriPV solar power in the Policy would act as a guiding model for all state agencies to align their policies towards promoting a new hybrid category for AgriPV solar projects. Inclusion in the Solar Policy is required to be coupled with introduction of specific regulations by the Rajasthan Electricity Regulatory Commission (RERC) for AgriPV solar plants. This can form the basis on which DISCOMs can purchase electricity from AgriPV projects either through bidding or through a PPA.

The above mentioned recommendation is in addition to the changes needed on each aspect highlighted as a bottleneck for development of AgriPV solar plants in the preceding paragraphs.

5. LIST OF POTENTIAL PRACTICES OR AVENUES TO OBTAIN A CONSTRUCTION PERMIT ON AGRICULTURAL LAND UNDER PRESENT LEGAL FRAMEWORK AND AUTHORITIES TO BE CONTACTED. THE POSSIBLE AVENUES/OFFICES OF REDRESSAL FOR OBTAINING PERMIT/ PERMISSION FOR AN AGRIPV PROJECT IN RAJASTHAN

5.1 Recommendations to accelerate Construction Permits for AgriPV Projects in Rajasthan on Agricultural Land

The construction of an AgriPV project involves construction of a structure on the land which is of temporary nature which can be removed or decommissioned either upon termination of lease or expiry of the lease deed.

The Rajasthan Tenancy Act, 1955 is the legislation which provides for permissions to be taken for Improvements in Land³⁶. Construction of an AgriPV project on agricultural land falls under the category of improvement in land. Section 66 of the Act provides that:

Right of Khatedar tenants to make improvements -

1. A Khatedar tenant may make any improvement in his holding:
 - Provided that the State Government from time to time -
 - a. Restrict, in public interest, the making of such improvements as if is referred in sub-clause (a) of clause (19) of section 5 in the areas to be notified for this purpose; and
 - b. Make rules to regulate the making of any such improvement in areas not covered by any such notification.
2. Notwithstanding anything contained in Sub-Section (1), no sanction is necessary for the construction of a temporary structure.
3. Any improvement made in a holding shall form part of the holding.

35 The Electricity Act, 2003, Government of India, Section 68 Internal Page 54, <https://cercind.gov.in/Act-with-amendment.pdf>

36 Mathur & Mathur, Tenancy Law in Rajasthan (9th ed.), Rajasthan Tenancy Act, 1955, Section 66 Page 314

From the reading of the Act, it is clear that a two step process has been defined:

Firstly, any improvement in the land can be regulated by making rules.

Secondly, no sanction is required for temporary improvements.

In light of the above, the State Government had notified Form - E37 in the Rajasthan Land Revenue (Conversion of agricultural land for non-agricultural purposes in rural areas) Rules, 2007. As per Form - E, an intimation has to be given to the Tehsildar informing that a solar power plant is going to be installed on the land. The Tehsildar, as per the Rajasthan Land Revenue Act, has the primary responsibility for maintaining land records and also removing illegal encroachments.

Moreover, there is a specific mention in the Act which provides for an exemption from seeking any permission for temporary structures. The installation of an AgriPV plant on the land is a temporary structure, made under a lease agreement with the tenant. Therefore, no separate permission is required for construction of the AgriPV power plant.

6. DOES LEGISLATION IN PLACE PERMIT FARMERS TO TAKE CREDIT AGAINST AGRICULTURAL LAND AS COLLATERAL? IF YES, IS IT ACTUALLY HAPPENING? ANY BARRIERS THAT THE FARMERS FACE? ARE BANKS ABLE TO SEIZE THE COLLATERAL IN CASE OF DEFAULT?

The primary legislations in Rajasthan permitting farmers to take credit against agricultural land are - Rajasthan Tenancy Act³⁸ and The Rajasthan Agricultural Credit Operations (Removal of Difficulties) Act, 1974³⁹.

As per section 43 of the Rajasthan Tenancy Act, the khatedar has a right to mortgage the land in the manner prescribed. Section 43 is reproduced as under:

6.1. Mortgage

(1) A Khatedar tenant, or with the general or special permission of the State Government or any officer authorised by it in this behalf a Gair Khatedar tenant may hypothecate or mortgage his interest in the whole or part of his holding for the purpose of obtaining loan from the State Government or Land Development Bank as defined in the Rajasthan Co-operative Societies Act, 1965 (Act 13 of 1965) or a Co-operative Society registered or deemed to be registered as such under the said Act or any Scheduled Bank or any other institution notified by the State Government in that behalf.

(2) A Khatedar tenant may transfer his interest in the whole or part of his holding in the form of usufructuary mortgage to any person but such mortgage must provide that the mortgage amount shall be deemed to be paid off by the usufruct of the property within a specified time not exceeding five years. and in the absence of such period being specified such mortgage shall be deemed to be for five years :

Provided that on or after the publication of the Rajasthan Tenancy (Penchant) Act, 1970 in the official Gazette no Khatedar tenant being a member of a scheduled caste or schedule tribe shall so transfer his rights in the whole or a part of his holding to any person who is not a member of a scheduled caste or a scheduled tribe.

(3) A usufructuary mortgage under sub-section (2) shall. upon the expiry of the period mentioned herein before be deemed to have been satisfied in full without any payment whatsoever by the mortgagor. and the mortgage debt shall be deemed to have been extinguished and the mortgaged land redeemed and the possession thereof shall be delivered by the mortgagee to the mortgagor free from,all encumbrances.

(4) A usufructuary mortgage of any land -made before the commencement of this Act shall. upon the expiry of the period mentioned in the mortgage-deed or twenty years- from the date of execution thereof. whichever period is less. be deemed to have been satisfied in full without any payment whatsoever by the mortgagor and the mortgage debt shall accordingly be deemed to have been extinguished and thereupon the mortgaged land shall be redeemed and possession thereof shall be delivered to the mortgagor free from all encumbrances.

37 Rajasthan Land Revenue (Conversion of agricultural Land for non-agricultural purposes in rural areas) Rules, 2017, Form - E, Internal Page 26 <https://landrevenue.rajasthan.gov.in/content/dam/landrevenue/revenuedepartment/Rules/conversion%2017-05-2019.pdf>

38 Rajasthan Tenancy Act,1955, Government of Rajasthan, [http://www.bareactslive.com/Raj/rj001.htm#:~:text=%2D%20Proviso%20to%20sub%2Dsection%20,\(it%2C%20a%20holder%20of%20Khadkash](http://www.bareactslive.com/Raj/rj001.htm#:~:text=%2D%20Proviso%20to%20sub%2Dsection%20,(it%2C%20a%20holder%20of%20Khadkash)

39 The Rajasthan Agricultural Credit Operations (Removal of Difficulties) Act, 1974, Government of Rajasthan, <http://www.bareactslive.com/RAJ/RJ021.HTM>

(4-A) A usufructuary mortgage of any land made after the commencement of this Act and subsisting on the date of the commencement of the Rajasthan Tenancy (Amendment) Ordinance, 1975 shall upon the expiry of the period mentioned in the mortgage deed or live years from the date of execution thereof, whichever period expires first, be deemed to have been satisfied in full without any payment whatsoever by the mortgagor and mortgage debt shall accordingly be deemed to have been extinguished and thereupon the mortgaged land shall be redeemed and possession thereof shall be delivered to the mortgagor free from all encumbrances.

(4-B) Where a usufructuary mortgage has once been made for any term under Subsection (2) or under Sub-section (4), no further usufructuary mortgage of the same land shall be made within two years of the expiry of the first mentioned mortgage.

(4-C) Where a usufructuary mortgage stands redeemed under sub-section (4-A) from a date earlier than the date of commencement of the Rajasthan Tenancy (Amendment) Ordinance, 1975, such redemption shall not be deemed to have been rendered the mortgagee liable to pay to the mortgagor any penalty or mesne profits or both for the period from the date such redemption and the date of such commencement.

(4-D) On the redemption of the mortgage under sub-section (2) or sub-section (4-A) the mortgagee shall deliver to the mortgagor all documents in his possession or power relating to the mortgaged property and shall re-transfer the property to the mortgagor and put him in possession thereof at his cost free from the mortgage and from all encumbrances created by him and those claiming under him within three months from the date of redemption of the mortgage:

Provided that in cases where the usufructuary mortgage has been redeemed under sub-section (4-A) from a date earlier than the date of the commencement of the Rajasthan Tenancy (Amendment) Ordinance, 1975, the delivery of documents, re-transfer and delivery of the possession of the property as aforesaid, unless already made, be effected within three months from the date of the commencement of the Rajasthan Tenancy (Amendment) Act, 1976.

(4-E) Any mortgagee who, without sufficient cause, fails to put the mortgagor in possession of the property within a period of three months as specified in subsection (4-D) shall on conviction, be punishable with imprisonment for a term which may extend to one year or with fine which may extend to Rs. 1000/- or both. The offence shall be cognizable and bailable and may be compounded by the mortgagor.

(5) Without prejudice to the provisions contained in sub-section (4-E), if the mortgagee does not so re-deliver the possession of the land mortgaged, he shall be liable to ejectment in accordance with Section 183-A.

From the provisions, it is clear that the State Government has created a separate code with penal provisions to ensure that land can be mortgaged. This departure from the normal course taken by banks in recovery has acted as a deterrent for giving loans.

6.2 The bottlenecks faced by farmers and financial institutions for lending to farmers is as follows:

Firstly, The provisions of the Rajasthan Agricultural Credit Operations (Removal of Difficulties) Act, 1974 provides for registration of charge and mortgage in favour of banks. The recovery mechanism, however, provides for an application to be made to an official specified by the State Government. The Act further provides that the official is required to conduct a hearing in which the defaulting farmer is required to be heard. There is also a requirement to serve a formal notice calling him to pay and a time period of three months must have elapsed after determination of liability by such authority. This is the biggest barrier that banks and financial institutions face when lending to farmers. The process of approaching a State Government notified authority and recourse to hearings, before recovery can be made, is detrimental to the interest of the Banks.

Secondly, the banks and financial institutions are more inclined to lend under the Kisan Credit Card (KCC) Scheme⁴⁰ - Master Circular issued by the Reserve Bank of India on 3 July 2017. Under the KCC Scheme, the banks cannot take land as a security. The mode of taking security is through pledging of agricultural produce. Therefore, even the farmers are reluctant to pledge their land for getting loans for agricultural purposes. Under the KCC, all Banks are required to provide adequate and timely credit support to the farmers.

⁴⁰ Master Circular - Kisan Credit Card (KCC) Scheme, Reserve Bank of India, <https://www.rbi.org.in/commonman/English/Scripts/Notification.aspx?Id=2311>

Thirdly, the private banks and other financial institutions are not inclined to lend on the basis of agricultural land. The loans are being advanced for agricultural purposes on the basis of pledging the house, movable property etc as security. For illustration, if a farmer is desirous of getting a loan, he will have to keep his house as collateral but no bank will be willing to accept his agricultural land as security.

Fourthly, section 11(2) of the Credit Act provides that a farmer who has availed the benefit of financial assistance from a bank by creating a charge or mortgage on any land or interest; cannot create any tenancy rights or lease the land to any third person without taking prior permission in writing from the bank. It further provides that any lease done in contravention of this provision shall be void. This is very important from an AgriPV project perspective because the land which is required to be taken will require prior consent from the bank or financial institution.

7. FINANCIAL IMPLICATIONS FOR THE SOLAR PROJECT DEVELOPER/OWNER AS WELL AS FARMER. PLEASE ALSO HIGHLIGHT ANY TAX IMPLICATION ON FARMER/DEVELOPER FOR ESTABLISHING AGRIPV POWER PLANT ON LAND OF THE FARMER. WHETHER DEVELOPER AND/OR FARMER MAY CONTINUE TO HAVE ACCESS TO BANK LOANS FOR THEIR RESPECTIVE BUSINESSES VIZ. AGRIPV SOLAR FARMS AND AGRICULTURE RESPECTIVELY. WHETHER BENEFITS/SUBSIDIES/MINIMUM SUPPORT PRICE FOR FARMING MAY CONTINUE, EVEN IF AGRICULTURAL LAND IS ALSO USED FOR AGRIPV POWER PLANT?

7.1 Incidence of Tax

There are three basic taxes that have been analysed in an AgriPV project viz. Goods and Services Tax, Income Tax and Local Taxes. GST and IT is imposed by the Central Government while Local Taxes fall within the purview of State Government.

7.1.1 Goods and Services Tax

The incidence of tax will arise when the land is leased from the farmer. The rent payable will include an incidence of GST which is payable at the rate of 18%. This includes an element of Central GST applicable at the rate of 9% and State GST applicable at the same rate i.e. 9%.⁴¹

7.1.2 Income Tax

Income Tax will be payable by the solar developer on the income generated from the operations. The farmer will have to pay income tax as well. Generally, income from agricultural sources is exempted under the Income Tax Act, 1961.⁴² However, the scope of agricultural income will not include the incidence of rental from land for the purposes of a solar power plant. This income will be taxed under a separate head and will be chargeable to tax as per the provisions of the Income Tax Act.

7.1.3 State Taxes

Local authorities (Panchayats and Municipalities)⁴³ have been given the power to charge user development fee etc. for developing roads and public facilities. However, currently, no such fee or tax has been levied on solar power generation in the State of Rajasthan. It is also not a part of the Solar Policy and there is a clear focus on developing Rajasthan as a major frontrunner in new solar projects.

Table 4: Highlights of taxes payable

	Solar Developer	Farmer
GST	Yes	No
Income Tax	Yes	Yes
Local Taxes	No	No

41 Goods & Services Tax, CBIC, Government of India, <https://cbic-gst.gov.in/gst-goods-services-rates.html>.

42 Income Tax Act, 1961, Government of India, Section 10 <https://www.incometaxindia.gov.in/pages/acts/income-tax-act.aspx>.

43 Rajasthan Municipalities Act, 2009, Government of Rajasthan, https://upload.indiacode.nic.in/showfile?actid=AC_RJ_83_1125_00001_00001_1612524193363&type=rule&filename=rajasthan_municipalities_act,_2009_date_11.09.2009.pdf

7.2 Access to Benefits associated with Agricultural Land

The rights given to tenants in Rajasthan are governed by the Rajasthan Tenancy Act and any access to benefits can only be curtailed by an amendment in the legislation. Until now, there is no such legislation or policy which curtails the benefits granted to farmers whose land is being used for development of solar power projects. To the contrary, Rajasthan has exempted the conversion of land for non-agricultural purposes when being used for solar power generation. Furthermore, there is also exemption from payment of conversion charges in order to promote the use of land for production of electricity using solar energy.

7.3 Access to Bank Loans by Farmer and AgriPV Developer

The rights of the AgriPV developer for accessing bank loans is not governed by any State legislation. The access to bank loans falls within the purview of the Reserve Bank of India which issues directions from time to time. There is no notification or direction by the RBI which limits access to bank loans either to the AgriPV developer or the farmer, if an AgriPV solar farm is developed on the land of the farmer.

8. RESEARCH ANY LEGAL BASIS OR LEGAL ASPECTS FOR STATES TO CONSIDER INTRODUCTION OF NEW TYPE OF LAND CATEGORY RECOGNISING AGRIPV (APART FROM KUSUM COMPONENT A), ANY EXPERIENCE IN THE STATE ASSURING CONSTRUCTION OF AGRIPV PROJECTS AS WELL AS BENEFITS ASSOCIATED WITH FARMING OF AGRICULTURAL LAND?

Rajasthan Solar Energy Policy makes a specific mention to decentralised grid connected solar power projects, and follows the model proposed by the Central Government in the Pradhan Mantri Kisan Urja Suraksha Evam Utthan Mahabhiyan (PM KUSUM) Scheme⁴⁴. Clause 8 of the Solar Policy encourages setting up such solar power plants within the vicinity of grid sub-stations on agricultural land. There is however, a major difference from the KUSUM Category - A, which is mentioned in Clause 8.2.145 which is reproduced below:

8.2.1 Farmers, on their own or through a developer, can set up decentralised power projects on their non-cultivable agricultural land as per clause 8.1.

Whereas, the KUSUM Scheme is wider and provides the following:

The REPP under the scheme would be implemented primarily on Barren / uncultivable land. Agricultural land is also permitted under the scheme provided that solar plants are installed in stilt fashion (i.e. raised structure for installation of Solar panels) and with adequate spacing between panel rows for ensuring that farming activity is not affected. The RPG would be free to adopt any renewable energy source or technology while responding to the bid. However, in case of cultivable land with solar plants, the same may be installed on stilts, so that the farmers continue to cultivate the land, apart from getting the benefit of lease rent. In such a case DISCOM may also float bids (in case of specific substations) where setting up of solar projects on stilts may be mandatorily required, and bids for energy tariff invited accordingly.

That based on the KUSUM Scheme and the provisions of the Rajasthan Solar Policy, a new hybrid land category for supporting the AgriPV projects in Rajasthan can be made with the following basic legal changes:

⁴⁴ Guidelines for Implementation of Pradhan Mantri Kisan Urja Suraksha evam Utthan Mahabhiyan (PM KUSUM) Scheme, Government of India <https://mnre.gov.in/img/documents/uploads/8065c8f7b9614c5ab2e8a7e30dfc29d5.pdf#page=2>.

⁴⁵ Rajasthan Solar Energy Policy, 2019, Government of Rajasthan, Clause 8.2.1 Page 18 <https://energy.rajasthan.gov.in/content/dam/raj/energy/rrecl/pdf/Home%20Page/Rajasthan%20Solar%20Energy%20Policy2019.pdf>

Firstly, In order to promote AgriPV as a means of supporting farmers in the State of Rajasthan, an amendment to the Rajasthan Tenancy Act can be brought to include AgriPV as an agricultural activity and provide for a specific mention that all benefits associated with tenancy of land will continue, even if an AgriPV project is being established on the land.

Secondly, as a stop gap arrangement, amendment can be made to the Rajasthan Land Revenue (Conversion of agricultural land for non-agricultural purposes in rural areas) Rules, 2007 to include a specific reference to AgriPV projects. The purpose of this amendment is to ensure that agricultural land will continue to retain its nature, in spite of the setting up of a solar power plant.

Thirdly, a specific amendment to the Rajasthan Imposition of Ceiling on Agricultural Holdings Act, 1973⁴⁶ is required to be made to exempt large scale solar AgriPV projects from the ambit of ceiling law. The reasoning for such a change can be that land is just being taken on lease and the farmer continues to use the land and ceiling law is not applicable. This exemption will go a long way in ensuring smoother and faster approval for projects.

Fourthly, for assuring construction of AgriPV solar power plants, the Rajasthan Solar Energy Policy 2019 is required to be changed to include AgriPV as one of the priority areas and removing the reference to usage of only “arid and unusable land” for solar energy purposes.

Fifthly, specific regulations related to AgriPV power generation can be made by the Rajasthan Electricity Regulatory Commission (RERC). The RERC, in the past, had made similar regulations for rooftop solar plants as well. This will provide regulatory certainty for solar power developers as well as farmers.

Therefore, there is a sound legal basis for the introduction of a new hybrid land category for promoting AgriPV solar power plant.

46 The Rajasthan Imposition of Ceiling on Agricultural Holdings Act, 1973, Government of Rajasthan, https://www.indiacode.nic.in/bit-stream/123456789/15972/1/the_rajasthan_imposition_of_ceiling_on_agricultural_holding_act%2C_1973.pdf

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