



SOLAR POWER DEVELOPERS ASSOCIATION

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November 20, 2020

To,

**Shri Indu Shekhar Chaturvedi**

**Secretary**

Ministry of New and Renewable Energy

Government of India.

**Subject: Request to advice SECI to approve solar developer's request for reduced land requirement for awarded projects using efficient Mono PERC modules.**

Dear Sir,

At the outset, we would like to thank the Ministry of New and Renewable Energy (MNRE) for all its support and responsiveness to the sector, enabling us to tackle the coronavirus (COVID-19) pandemic.

Over the years the Government has supported the need to increase the usage of advanced technologies in the renewable energy sphere, particularly in the solar energy sector. Technological advancement of solar modules have become a key to increase the efficiency of the project. However, given that large – scale deployment of solar energy projects requires vast stretches of land. Over the years, the solar Independent Power Producers (IPPs) have made concerted efforts to ensure that the land acquired is in sync with the developments on the module efficiency that are continuing for optimum generation.

In this regard, we would like to bring to your notice that many solar power developers, in the past couple of months, have started to use Mono PERC modules to increase efficiency of their projects. It is also pertinent to note that **land requirement is 20-30% less in Mono polycrystalline passivated emitter and rear cell (PERC) module** usage when compared to polycrystalline (poly) modules which have been used for solar projects presently. .

Mono PERC cells have now become significantly more affordable and have taken over the Indian market. The higher efficiencies in photovoltaic (PV) ultimately results in lower costs, so, eventually, with mass volumes and competition, high-efficiency modules get priced at the same level or even lower than the conventional ones. **A comparison of the efficiency of poly modules and Mono PERC modules is provided in Table 1 in Annexure I, enclosed for your reference.**

The improved efficiency of the Mono PERC modules allows solar developers to generate the same quantum of energy on a smaller stretch of land, thereby freeing up the additional strip of land. We would like to draw your attention to the operative portion of the RFS:

**15 FINANCIAL CLOSURE OR PROJECT FINANCING ARRANGEMENTS AND LAND ARRANGEMENTS....**



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**(v) Land arrangements:**

a. The SPD shall be entirely responsible for acquiring the land required for setting up the project and SECI shall not in any manner be responsible for the same.

b. **The SPD shall demonstrate possession of 100% (hundred percent) of the land identified for the Project within 12 months from the Effective Date of the PPA** (for e.g. if Effective Date of the PPA is 07.03.2019, then the above deadline shall be 07.03.2020). **The SPD shall be required to demonstrate possession of a minimum area of 1.5 ha/MW for the Project Capacity.** In this regard, the SPD shall submit documents/ Lease Agreement to establish possession/ right to use 100% of the required land in the name of the SPD or its Affiliate. In case the land is in the name of the Affiliate, the land should be transferred in the name of the SPD before the SCD. Wherever leasing of private land is involved, the lease should allow the transfer of land to the lenders or SECI, in case of default of the SPD.

The above requirement in the RFS has been for projects that have zero percent DC overloading. However, now, land requirement will be different for various technologies in the market. Further, it may vary across different developers depending on several other factors that includes their bid capacity, quoted price, technical specifications and location of the project.

In newer bids, starting SECI Solar Tranche 8, the requirement for demonstrating land as a Conditions Subsequent has been shifted to the Scheduled Commissioning Date (SCD) of the project. This has led to the improvement of 'Ease Of Doing' business in the solar sector.

Additionally, for the wind sector, for various tranches starting SECI I, the above requirement of demonstrating land has been pushed to SCD after the issuance of LoAs and PPAs. This was done to resolve the land issues in different states faced by the developers. In the interests of the RE development in India, a precedent has been set up, where land requirement is now shifted from FC date to the SCD by SECI.

**We would, therefore, request you to waive of the requirement of establishing possession of the required land in the name of the developer or a lease agreement to that effect on any date prior to the SCD.**

We look forward to your kind consideration in the above matter.

Thanking you.

Yours Sincerely,

Praveen Golash  
Joint Secretary- SPDA



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**Annexure- I**

**Table 1 - Comparison of the efficiency of Polycrystalline modules vs Mono PERC modules**

| <b>Module Type</b> | <b>Make</b> | <b>Dimensions</b> | <b>Module Area (Sq.m)</b> | <b>Increase in Area against Poly</b> | <b>Average Wp</b> | <b>Increase in Wp</b> | <b>Improvement in efficiency</b> |
|--------------------|-------------|-------------------|---------------------------|--------------------------------------|-------------------|-----------------------|----------------------------------|
| Polycrystalline    | Znshine     | 1960×992×35 mm    | 1.944                     | -                                    | 335               |                       | -                                |
| Mono PERC          | Jinko       | 2182×1029×40 mm   | 2.245                     | 15%                                  | 462.5             | 38%                   | 23%                              |
| Mono PERC          | Longi       | 2094x1038x35 mm   | 2.174                     | 12%                                  | 447.5             | 34%                   | 22%                              |