



SOLAR POWER DEVELOPERS ASSOCIATION

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Shekhar Dutt, SM, IAS(Retd)
Director General, SPD/
Former Governor of Chhattisgarh State

Date- 09.05.2018

Subject: Request for increasing the timelines for execution of solar projects with timelines of meeting FC conditions.

Dear Shri Anand Kumar,

Greetings from Solar Power Developers Association (SPDA).

The pace of solar capacity addition under 100 GW National Solar Mission by 2022 and 40 % energy mix by 2030 wherein Solar capacity is expected to make highest contribution than any RE source needs a fail-proof system in terms of connectivity and evacuation.

On behalf of solar industry, SPDA has been consistently raising concerns over stringent and inadequate timelines for completion of **Financial closure** (FC Conditions) and **Commissioning** of solar projects.

The allowable timelines to meet FC conditions (Clause 12) and commissioning (Clause 14.3) are governed by the "Guidelines For Tariff Based Competitive Bidding Process For Procurement Of Power From Grid Connected Solar Projects" notified in Aug 2017 by Ministry of Power. The said guidelines provide for the following timelines:

Financial closure:	7 months from execution of PPA
Commissioning below 250 MW projects:	13 months from execution of PPA
Commissioning above 250 MW projects:	15 months from execution of PPA

Stringent timelines of Financial closure (FC)

In order to meet FC conditions, a Solar Power Developer is obligated to arrange 100 % land ownership within 7 months of execution of PPA, (ii) obtain connectivity from respective STU/CTU and (iii) make project financing arrangement from the banks within 7 months timelines after execution of PPA.

Currently around 10,000 MW of solar tenders are out for bidding outside solar park category. MNRE trajectory has already set out its target to allocate 60,000 MW

सोलर एनर्जी कोर्पोरेशन ऑफ इंडिया लि.
Solar Energy Corporation of India Ltd.
09 MAY 2018
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एन टी सी लिमिटेड
NTPC Limited
09 MAY 2018
Regional & Dispatch Cell (GOSP) N. Delhi-3
प्राप्ती किता / RECEIVED

Ministry of New and Renewable Energy
Daak Received
09 MAY 2018
Block-14, CGO Complex
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solar projects in next two years and majority of this capacity shall be developed outside solar park.

As per the MNRE norms (i.e. land requirement @1.5 hectare/MW), **around 2,50,000 acres** of land is required for execution of above capacities.

You will appreciate that **Land acquisition** is very critical and the most time-consuming activity of the project for every developer. All other activities i.e. obtaining evacuation permission at the nearest substation, bank financing and obtaining other necessary permissions/ clearances of the solar project are **solely dependent** on the land ownership rights in the project company.

Taking the reference from a 100 MW solar project size, this requires around 400 acres/150 Hectares of contiguous land. The 'contiguity' aspect of the land is very crucial to maintain the economical viability of the projects and also to utilise the land resource effectively. The complexity of land acquisition is directly linked with number of sellers involved in the land area required. Most of the land parcels are usually jointly owned by the family members in rural areas. Ensuring the availability of each member in family-owned land at every step of the land acquisition is an unmeasurable effort. These aspects are often not in the control of the developers. From the title search of every parcel to the negotiation of land prices, and finally the aggregation of all the joint owners to carry out the sale deed registration for every parcel requires considerable time and enormous effort.

In addition the above, other major aspects like irradiation of the land area, connectivity with roads, feasibility with evacuation substation, type of soil and land prices etc may not be aligned with each other. Therefore, developers are sometimes constrained to change the land location to maintain the economical viability the solar projects and have to carryout entire land acquisition process afresh, in case the originally identified parcel of land fails on one or more of the above parameters. However, the stringent timelines coupled with levy of substantial penalties for any delays in FC conditions leaves no option for developers but to pay the land prices even if much higher than the circle rates. Moreover, the mischievous elements in and around the site area also tend to unduly influence the land sellers to delay the acquisition to drive up the land acquisition costs, which ultimately delays the land acquisition.

Every state has different timelines to give permissions for 'Change in land use' (Agriculture to Non-agriculture), land ceiling rules and even transfer in ownerships.

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In the considerable experience of Solar Power Developers, all these processes and attendant challenges are extremely difficult to complete within 7 months. These delays have a cascading effect and are the primary causes for delays in meeting FC conditions and ultimately, the scheduled commissioning of solar projects.

It is important to highlight that these delays in land acquisition have also impacted the commissioning of solar projects within the solar parks wherein the responsibility of arranging land and connectivity was in the scope of Government authorities as solar park developers. In fact, the commissioning of solar projects in Ananthpuram (AP) Solar parks, Pavagada (Karnataka) solar parks, UP solar parks and Bhadla solar parks, wherein Government Authorities were the SPDs, were delayed on account of land and connectivity related issues.

Thus, it is clear that these issues plague the entire process of development of Solar Power, whether by private or public entities, and these issues need urgent attention and action.

Now, while the mere process of land acquisition is bereft with issues, as stated hereinabove, however, even after the acquisition of land, obtaining all other necessary permissions and clearances including the SNA registration, NOC from Gram Panchayats, Building plan approvals, labour related compliances, NOC from forest (if applicable) etc. requires additional time after completion of land acquisition process.

In the above scenario, we are given to understand that solar projects with thousands of MW capacity have filed for applications for extension of time extension for completion of Financial Closure and commissioning on account of Government delays in land related permissions, connectivity and permits & clearances.

Keeping the above in consideration, 7 (seven) months timelines are excessively stringent and unrealistic, given the ground realities, and thus inadequate.

We sincerely request you to analyse the issues raised by us, and provide for a longer, more realistic timeline, to help us execute the PPAs and develop the solar power projects in a financially viable and safe manner.

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Inadequate Timelines for Commissioning:

Upon completion of FC conditions, the entire project has to be executed in the subsequent 6 months in order to commission the overall project within 13 months from the effective date of PPA. Projects with capacity above 250 MW are provided 8 months to execute and commissioning the entire project in 15 months from effective date of PPA. In the recent ISTS connected solar tenders of SECI, the minimum project size is of 250 MW which can be developed in combination of multiple packages with minimum package size of 50 MW.

It is noteworthy that evacuation voltage is key deciding factor for sizing of plant equipment(s), whereas land topography and type of soil are key factors for deciding the plant layout of every solar project.

(i) Procurement of equipment

Due to mandatory technical requirements, every solar project with minimum 50 MW capacity have to be evacuated at 132 KV evacuation system (as compared to equipment for smaller capacity power plants which can be evacuated at 33 KV/66 KV systems). Accordingly, the sizing and specifications of all the electrical equipments are decided and have a minimum lead time for supply i.e. **5-7 months**. Further, equipments required for evacuation for 220 KV voltage have much higher lead time for supply i.e. **7-9 months** which also requires additional 2-3 months to complete the installation work.

You will appreciate that although the technical requirements of the above equipment are determinable at the time of evaluation of the project at the time of bidding, however, the Developer cannot reasonably place the orders for their supply before completing the process of land acquisition and financial closure. Thus, this is not, in practice, concurrent process. Since the equipment is often project/requirement specific, there is no possibility of acquiring them in advance, without certainty of execution of the project.

Thus, we submit that these expected timelines for acquisition of equipment must be taken into consideration while setting the deadlines under the PPA for completion of formalities.

(ii) Land Topography and Right of Way

Apart from supply of equipment, projects also suffer from unmeasurable delays from **Right of way issues** in the construction of Transmission line irrespective of the project size.



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Basis the feedback received from Industry members from their on-ground experience of project execution, land topography also changes after every 200-300 Acres of land area which also add-on to the challenges in execution of every project 50 MW and above capacity at single location.

Therefore, 6 months timelines provided for execution of all the solar projects below 250 MW capacity and 8 months timelines for 250 MW and above projects are not practical, and inadequate.

Reference from Wind Sector

We would like to draw the reference from the wind sector wherein the project sizes are restricted with size limitations of wind turbines (1-2 MW each) and are executed at multiple locations by acquiring very small land patches for a particular turbine and connected through common evacuation system.

Despite the relatively less demanding requirements and processes for land acquisition, wind projects are provided with a reasonable 18 Months timeline for commissioning from the execution of PPA with 3 months lead time for signing of PPA from the issuance of LOA.

Suggestions and Requests

It is important to mention that stringent and inadequate timelines for meeting FC conditions and execution of solar projects shall continue to pile up the cases for time extension with SECI/NTPC and MNRE and would also increase the number of disputes in State/Central Regulatory authorities on account of reasons stated above.

Given the issues faced by the Solar Power Sector, and the existing timelines, it is prayed that Solar Power Sector be treated with similar understanding, and the existing timelines be re-evaluated and enlarged to the extent reflect below:

- Minimum 21 months may be allowed for execution of solar projects below 250 MW capacity with minimum 12 months for meeting FC conditions from signing of PPAs.
- Minimum 24 Months may be allowed for execution of solar projects above 250 MW capacity with minimum 15 months for meeting FC conditions from signing of PPAs

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The increase in timelines may kindly be considered in the existing ISTS connected solar tenders by SECI and NTPC due for bidding in coming weeks and may also approve for same for changes in "Tariff based bidding guidelines" as referred above.

Look forward to your kind consideration in this regard.

Thanking You.

With warm regards

Yours Sincerely

Shekhar Dutt

Shri Anand Kumar, IAS
Secretary
Ministry of New and Renewable Energy (MNRE)
CGO Complex
New Delhi.

Copy to:

1. Chairman, National Thermal Power Corporation (NTPC)
2. Managing Director, Solar Energy Corporation of India (SECI)

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