



SOLAR POWER DEVELOPERS ASSOCIATION

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To,
The Secretary
Ministry of New & Renewable Energy
Govt. of India
New Delhi

Sub: Issues impacting solar sector in India

Dear Sir,

It is heartening to note that renewable energy has grown at stupendous pace in last 5 years with installed capacity reaching above 77 GW. To fight the global menace of climate change, it is critical that India continues its march even more strongly towards sustainable and clean energy in future.

In this context, we wish to inform you that in solar is facing headwinds due to multiple challenges which need to be resolved for reviving the growth. Some of the critical issues that are impacting the sector along with suggestions are provided below:

1. **Issues with GST rate:**

As a heralding reform, GST was implemented by Govt. of India in July 2017. However, as far as solar industry is concerned, there was ambiguity in tax structure. As per schedule notified under GST law, the procurement of Solar Power Generating Station (SPGS) was kept under concession rate bracket of 5% in line vision of low-cost electricity for all and Solar Mission 2022.

However, the clarification issued by Ministry after 31st GST council meeting held on 22nd Dec 2018 has resulted in increase in effective GST rate from 5% to 8.9% on solar power generation which has resulted in increase in cost of electricity. This is fundamentally against the Governments objective of promoting solar power for sustainable development and its commitment towards Paris agreement on climate change. It is requested that Govt. reviews its decision and decrease the taxes to reasonable levels.

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2. Time extension for delay in commissioning of projects due to safeguard duty

As mentioned earlier, safeguard duty had detrimental impact on industry. The projects especially which were to be commissioned during August – October 2018 as their construction was at peak when safeguard duty was imposed. Imposition of safeguard duty led to d as the disruptions at all the ports resulting in halt / slowdown, delay in clearance of modules thereby resulting in delay in commissioning of projects. According to duty rates, developers were compelled to shell out Rs. 60 Cr per 100 MW of capacity. This resulted in massive squeeze in cash flow situation as amount of duty was not budgeted and was way beyond contingencies budgets of the project. It may be appreciated that arranging funds for such heavy-duty charges would take reasonable time, cost and effort which took some time.

Further, due to safeguard duty custom clearance at ports became a bottleneck and it took 3-4 weeks as compared to 7 days to clear the modules. As a result, a significant number of projects got delayed and liquidated damages have been levied on developers for delays. It is requested that in light of hardship faced by industry, a pragmatic view may be taken and all solar projects with SCOD between 30.7.2018 to 30.10.2018 may kindly be allowed 30 days of time extension.

3. Integrated manufacturing policy

As mentioned above, Govt. of India has for right reasons wishes to promote solar equipment manufacturing in India. It was conceptualised that entire value chain from ingots to module shall be produced in India. Under the scheme, investors were incentivised with capital subsidy under M-SIPS scheme. The matter was submitted to Expenditure committee in Ministry of Finance, however proposal was not approved. Subsequently, SECI adopted a different approach and brought manufacturing linked tenders. As widely, know, despite multiple extensions of timelines it failed to evince any interest of investors.

We strongly believe that solar manufacturing in India is very critical for long term energy security. However, there are constraints in terms of financing, high capital costs and uncompetitive electricity prices. Govt. must address these challenges and come out with a comprehensive framework with suitable incentive structure and promote an enabling eco-system to see to it that India can emerge as hub for solar equipment manufacturing.

4. Funding challenges

Bank funding plays a very critical and significant role in nation building as the same is an important element in funding of infrastructure projects. A solar power project has a very small construction timeline and is easy to execute and operate. The cash flows also get stabilized in just a couple of months with customers being

Central and State Govt utilities. In many sectors like power transmission and roads, the leverage goes beyond equity contribution through innovative structures like Invit, IDF etc. However, it has been brought to our notice by certain leading solar developers that off late leading PSU banks like SBI have made the lending norms to the sector extremely stringent leading to making the projects unviable for Solar Power Developers (SPDs).

Few of the stringent norms being adopted by PSU Banks are enumerated below:

- **Debt to Equity Ratio of 65:35**. Most of the infrastructure and solar projects in India and abroad have been funded in the ratio of 75:25 considering the small timelines for construction, stability of cash flows post commissioning and low counterparty risk owing to sovereign payment liability. Investment and asset creation by private sector can increase only if the funding mix of debt and equity is optimized given the low equity IRRs. Hence, the Debt to Equity ratio needs to be revised to 75:25 for solar sector.
- **Average Debt Service Coverage Ratios of 1.35**: For a solar industry, the acceptable average DSCR must be around 1.20 due to factors like govt bodies as customer, certainty of generation etc. An average DSCR of 1.35 and above will make most projects ineligible for debt funding as margins of developers are not exorbitant. Hence, the Debt Service Coverage Ratios needs to be kept at 1.20 for solar sector.
- **Door to door tenor of 15 years**: The tenor of debt must be atleast 18- 20 years as underlying PPA's are for 25 years and there is a tail of cash flows. A lower tenor will result in lower DSCR.
- **Appraisal at P90**: For a solar industry, this norm is purely academic and theoretical as actual generations, due to DC loading and improved module efficiency, actual generation is around P50 levels. Appraisal at P90 levels leads to lower debt entitlement. Hence, appraisal is suggested to be kept at P75 for solar sector.
- **Low Cost of funding**: The funding costs in India are extremely high even though the counterparty is Sovereign, or sub sovereign and the execution risks are very low. This can also be addressed to some extent by bringing solar sector under priority sector lending.

If the funding norms for the solar sector are not eased and fast tracked, this would derail the 100 GW Solar Mission by 2022, set by Hon'ble Prime Minister

5. **Modifications in placement of Private Infrastructure Investment Trust (InvITs)**

Indian renewable energy sector will require massive capital to attain capacity addition target of 175 GW by 2022. Given, the state of banking sector in India, it is critical that developers get access to cost effective capital markets which can provide them with long term capital at competitive rate of interest. Infrastructure Investment Trust (InvIT) is one such platform that has a potential to provide access to new set of investors who seek long term yields in a tax effective manner. Govt. of India has taken right step by launching InvIT as a securitisation vehicle that has a potential to boost infrastructure investment in general and solar investment in specific manifold.

As present, there is no InvIT (public or private) in solar generation space in India although business is fundamentally attuned to an InViT structure due to annuity nature of cash flows. However, there are some constraints that need to be removed to fast tracking adoption of inViT as mentioned below:

- **Removal of requirement of minimum 5 investors or cap of 25% stake for each investor:** It has been the experience of issuers trying to raise funds through private InViT route that getting 5 investors to come together is quite challenging since all the investors have different requirements and it becomes time consuming to get them to agree on common terms which often can derail the process. Hence, this requirement should be relaxed.
- **Taxation benefits:** Private InViTs do not enjoy same tax benefits as listed ones such as pass through status, exemption from dividend distribution tax on dividend received from SPVs, lower rate of withholding tax on interest paid to unit holders from capital gains tax and MAT etc. Tax benefits are critical and hence must be allowed to attract more investors to the market

6. **Approval for 5 years funds from international capital market instruments for repayment of INR debt for infrastructure assets**

The funding requirement of renewable energy sector is pegged at Rs.3 lakh crores of which 2.25 lakh is expected to come from debt while rest will be infused through equity. Given massive requirement, it is expected that Indian banking system may not be able to fund entire capex. In this backdrop, Indian companies have already started approaching international bond market for funding needs. The bond investors do not want construction risk of projects and wish to invest in only operational projects. Hence, companies can utilise funds raised under this route to refinance the existing INR debt.

The present regulations of RBI have provision in which allows foreign parent can invest in Indian subsidiary in form of USD or INR denominated with minimum maturity of 5 years for refinancing rupee debt or meeting working capital requirements. However, an Indian company without a foreign parent cannot raise

5-year ECB to repay rupee debt. They are only allowed to raise minimum 10-year ECB to refinance rupee debt and international investors' appetite is very limited for such a long tenor. This puts Indian owned companies at a disadvantage as compared to their foreign counterparts for raising international debt capital.

It is hence, requested that in order to maintain relative competitiveness of the Indian owned renewable energy companies, a specific approval be provided to raise USD ECB under Track-I for refinancing existing INR debt or for meeting working capital requirements.

7. Line of credit (LOC) offered by Govt of India for developing Nations

GOI is providing LOC facility through Exim bank for developing countries under infrastructure development & economic assistance scheme (IDEAS). LOC facility is a G2G arrangement subject to procurement of goods & services from Indian companies only through a bidding route with 75 % goods compulsory manufactured within India. Some of these terms of the LOC scheme are hindering the effective utilization of the scheme in solar power development in African countries. It is requested that facility may also include provisions to provide soft loans to Indian developers for setting up large scale solar power plants in African countries based on MOU/Feed-In Tariff mechanism.

8. Delayed payments

Renewable energy sector is being marred by the delay in payments to IPPs across all states and jurisdictions. It must be appreciated that the financial viability of any project is dependent on the realisation of revenue accrued from sale of power the DISCOMs which are primary off takers of renewable power in the country. However, many Discoms including like of Andhra Pradesh, Telengana, Tamil Nadu have defaulted consistently and have delayed payments with period ranging from 6-12 months. This is severely impacting affecting the viability of projects and putting strain on finances resulting in default in debt service obligations, issues with working capital etc.

As a plausible solution to this conundrum, we request you to consider an arrangement similar to what was effective for public sector thermal power projects till October 2016, under which tripartite agreement were signed between RBI, Union Government and State Government whereby any state defaulting dues to public sector companies risked deduction from annual transfers. This ensured timely payment to generators. Further, option of mandating the DISCOMs to set aside a share of their revenues towards making payment to generators can be also considered.

9. Uploading of Discom payment data in public domain

As mentioned above, delayed payments are a major cause of concern for RE generators. We believe that there is urgent need of bringing more transparency

in the matter so that DISCOMs can be held accountable for delays. Ministry of Power has already taken up the initiative and has created a portal called as "PRAAPTI" wherein data for delays in payment is available for each utility. It is suggested that renewable energy generators may also be added to the portal. Alternately, MNRE can launch a portal of its own for the purpose.

10. Ceiling Tariff

Solar power tariff depends on multiple factors which are mentioned below:

- Forecast of solar radiation at a particular location for bidding a project
- Pricing forecast of solar modules which contribute 60% of the project cost
- Forecast of currency exchange rates
- Cost of capital goods at prevailing market conditions, land and transmission infrastructure
- Debt lending rate
- Expected RoI

Every state has its own uniqueness in terms of granting permits and clearances, land acquisition processes, evacuation possibilities, logistics, availability of work forces etc. required during project execution. Price

11. Grid Curtailment

Few states like Karnataka, Tamil Nadu, Telengana and Andhra Pradesh are repeatedly backing- down renewable energy power on pretext of grid safety. This has been happening despite these plants being set up after proper load flow analysis and approval of state transmission companies. Further to the above, government instrumentalities are not providing appropriate reasons for such curtailment.

RE generators are facing huge revenue loss on account on such unplanned curtailments. This can be further be appreciated from the fact that while conventional power plants have two-part tariff i.e. fixed charge and variable charge, RE generators have only one-part tariff. In case of non-drawl by state utilities, conventional generators get paid for fixed charges, but that is not the case with RE. In situations, when RE generators are not able to supply or sell power to the grid, they are facing irrevocable losses to investments.

While we fully appreciate that for safe operation of the grid, electricity demand and supply always need to be matched and imbalance in energy increases the threat of blackout if it is not managed with systematic planning Solar and wind are dependent on forces of nature and therefore subject to seasonal and diurnal changes. The target to achieve 227 GW renewable energy 2022 will be in jeopardy if suitable measures are always not deployed for absorbing RE into grid while keeping demand supply matched

12. Load restriction

One of the prime reasons of higher generation by solar power plants is the higher DC loading i.e for 100 MW AC capacity, developers typically install 140-150 MW DC capacity. This was primarily done to compensate for degradation of solar module which leads to decline in generation with duration of operations. Higher DC loading has also enabled developers to offer competitive tariffs.

The practice is quite common and widely accepted. As the matter of fact in some of PPAs, variation of +5% was explicitly mentioned. However, in recent times, SLDCs have started resorting to load restriction (to name plate capacity / AC Capacity) due to which solar power developers (SPDs) are facing regular issue of generation backing down / curtailment / tripping for their projects.

The case in point is of 2000 MW Pavagada Solar Park in which all the developers have been facing regular curtailments. Load limitation is significantly impacting the profitability of projects as such additional generation was factored in financial models while bidding.

In addition to above, it may be appreciated that solar generation profile follows a bell curve in which peak generation happens only for 2-3 hours in day and that too in summer months when radiation is sufficiently high and hence impact on grid is limited. Considering the factors mentioned above, SPDA hereby requests you to allow variation of + 5% deviation from name plate capacity as prudent utility practice.

13. Dispute resolution committee

In last few years, solar sector has witnessed significant increase in number of disputes, which have translated into litigations. These litigations have resulted into significant wastage of effort, time and money on part of disputing parties. Existing provision in MNRE guidelines have provisions of resolution of disputes resolution only through legal framework i.e Central Commission (Tariff related) or Arbitration process (Non-Tariff related). As a result, plenty of PPAs are disputed in SECI / NTPC only on generic issues i.e land, evacuation and Government related permissions etc. affecting PPA milestones. Occurrence of such common issues lead to disputes in PPAs and matter remain pending in legal process for indefinite period of time.

SPDA had requested MNRE for the formation of Dispute Resolution Committee (DRE) aiming at resolution of such issues in expedited manner with fixed timeline. It is noteworthy that directions in this regard were issued to NTPC/MNRE/SECI by Principal Secretary to Prime Minister after meeting held on 26.11. 2018. However, formation of this DRE is still pending which is essential to resolve the disputes towards ease of doing business.

14. Relaxation in Standard Bidding Guidelines

- a. **Financial Closure:** The present guidelines require solar power developers to attain financial closure within 12 months of from date of PPA failing which the procurer has right to encash performance guarantee. The projects are 100% funded by the project owner through its internal sources or bank loans without any VGF / Subsidy from the Govt. The risk delay in project commissioning lies with Project owners and liable for liquidated damages and encashment of PBG. Therefore, requirement of any interim milestones shall be waived off.

In order to monitor the progress of the project the Procurer may conduct progress review meetings on monthly basis to plan the timelines for procurement of power from the project(s) accordingly.

- b. **Commissioning:** As per the present guidelines, COD is defined as date on which commissioning certificate is issued upon successful commissioning of the full capacity of the Project or the last part capacity of the Project as the case may be. Further, while early commissioning is allowed, tariff at which such power is procured till SCOD in 75% of PPA tariff.

It is requested that the commissioning and COD of the project should be considered on the date of power flows into grid irrespective of the quantum of energy. In order to achieve the solar mission on time, early commissioning of the projects should be rewarded and not to be penalized by reducing the tariff percentage

- c. **Project Commissioning Schedule:** As per the present guidelines, the projects are required to be commissioned within a period of 15 months from the date of execution of the PPA in case of solar parks and 18 months in case of non-solar park projects.

In case of CTU connected projects, there is process of getting connectivity with the CTU as per ISTS Regulations as prescribed by CERC and the commencement of constructing the ISTS infrastructure can only be done after signing the LTA Agreement with CTU. Therefore, it requires substantial time period. Hence, it is requested that this guideline may be reversed to original timelines which were 21 months and 24 months respectively.

- d. **Force majeure:** As per the present regulations, the PPA should contain provisions about force majeure definitions, exclusions, applicability and available relief on account of Force Majeure, as per the industry standards.

We propose to include the circumstances and events which are beyond reasonable control of Developer(s) due to which the Developer be unable to perform its obligations under the Agreement as Force Majeure events. RoW issues can be covered under Force Majeure events in case the project is commissioned as its installed capacity, but transmission line could not be completed due to RoW issues. Law and Order issues can also be covered under Force Majeure events due to which the Project Developer(s) has not been able to perform its obligations.

Govt. orders for imposition of new rules such as demonetization, imposition of new taxes and duties directly / indirectly affecting the implementation of projects and causing disruption in day to day business activities can be covered under Force Majeure events

We hereby request that provision may be amended and must guideline may state that PPA should contain provisions with regard to force majeure definitions, exclusions, applicability and available relief on account of Force Majeure, issues pertaining to delay in land process and permissions, connectivity, statutory permissions and clearances etc. related to Govt, Right of Way (RoW) and disruptions in the project activities due to reasons beyond the control of Solar Project Developer.

- e. **Change in Controlling Shareholding:** The present guidelines require that successful bidder, if being a single company, shall ensure that its shareholding in the SPV/project company executing the PPA shall not fall below 51% (fifty-one per cent) at any time prior to 1 (one) year from the COD.

It is pertinent here to note that 100 GW solar mission has the potential to grow upto 300 GW; which will require enormous equity investment to the tune of 50 Billion USD and a gigantic debt financing to the tune of 168 Billion USD. Arranging such huge equity and debt sources may require financial restructuring of the project assets by the investors and financial institutions; therefore, there should not be any lock-in the controlling shareholding after COD.

- f. **PPA Period:** The guidelines state that PPA period should be 25 years. The module suppliers are ready to provide the generation warranties for more than 30 years. Therefore, plant life cycle should be considered as 30 years. Increased PPA Period shall be very helpful in further reducing the tariff as the Bank loans can be granted with 24 years loan tenure (80% of PPA period)
- g. **Generation Compensation for Offtake Constraints:** The current provision regarding transmission Constraint state that the excess generation by the SPD in the succeeding 3 (three) Contract Years, shall be procured by the Procurer at the PPA tariff so as to offset this loss

For Grid Unavailability, the excess generation by the SPD equal to this generation loss shall be procured by the Procurer at the PPA tariff so as to offset this loss in the succeeding 3 (three) Contract Years(c) Backdown: 50% of [(Average Generation per hour during the month) × (number of backdown hours during the month) × PPA Tariff]

Solar projects are facing huge grid curtailments across the country and no compensation has been paid under the existing mechanism. The instructions for backing down of generation are given verbally. We request that such practice should be stopped and communication of backdown should be strictly through written notices.

- h. Sale of excess power:** The present provision of SBG states that in case the availability is more than the maximum CUF specified, the Solar Power Generator will be free to sell it to any other entity provided first right of refusal will vest with the Procurer(s). In case the Procurer purchases the excess generation, the same may be done at 75% (seventy-five per cent) of the PPA tariff, and provision to this effect shall be clearly indicated in the RfS document.

We request that guidelines be amended and should state that, in case the Procurer purchases the excess generation, the same may be done at 100% (hundred per cent) of the PPA tariff. In case the Procurer refuses to purchase excess energy, the SPD shall be provided energy banking facility for sale of excess energy to any other entity, and provision to this effect shall be clearly indicated in the RfS document.

- i. Capacity Ceiling for allocation to a Bidder:** As per present guidelines, single bidder is eligible for allocation of entire capacity in the solar park schemes and 50 % capacity of tenders in non-solar park schemes. Allocation of such large capacity to single bidder dilutes the Government's objective of "Opportunity for all". More importantly, Indian solar industry has grown with 70-100 mid & large scale solar power developers established in the country. Therefore, open allocation of entire capacity or 50 % capacity to single bidder actually restricts the competitive spirit of medium scale developers in comparison to big groups also operating in the sector. Allocation of entire capacity to single bidder also increases the risks on banks and bank will be funding for entire capacity depending on the contract performance of single company/group. In view of above, it is requested to restrict the bid/allocation capacity maximum to 20% of tender size for every bidder participating in solar parks/non-solar parks biddings. It will increase the effective participation from small and medium players operating in the sector. Bank funds will also be distributed among large stake holder mitigating their risks of dependency of single company/group
- j. Project site specified by the Procurer:** Identification of 100% (hundred per cent) land and provision of documents/ agreements to indicate in-principle

availability of at least 25% (twenty-five per cent) of land at the initiation of bidding, and possession of 90% (ninety per cent) of land within 1 (one) months of the execution of the PPA and the balance 10% (ten per cent), within 2 (two) months thereafter.

Any changes / alterations in the land area after the bid submission may lead to time and cost overrun in the project which is beyond the control of Bidders. Therefore, the bidding for solar park tenders should only be conducted after 100% land is in possession of Solar Park Implementing Agency (SPIA). This will help in reducing the tariff as the risk of any alterations in the land area shall be mitigated with above changes.

All essential infrastructure facilities such as Boundary wall, approach roads including internal roads inside solar park, street lighting including periphery lighting, drainage system including storm water collection system, corridor for power evacuation from solar projects, construction power including water supply for construction etc. must be ready at the time of handing over of land / signing of Implementation Service Agreement.

Regarding distribution of solar park charges reference may be drawn from REWA Ultra Mega Solar Park

- k. No Objection Certificate (NOC)/ Environmental Clearance (if applicable) for the Project:** Environment Clearance for Solar Projects to be removed from Bidding Documents. MoEF has already exempted the Solar Projects under Green Category.
- l. Bank Guarantees:** As per the present guidelines, the Solar Power Generator is required provide the following bank guarantees to the Procurer in terms of the RfS and the PPA:
- Earnest Money Deposit (EMD), to be fixed by the Procurer [but not to be more than 2% (two percent) of the Solar PV power project cost, as determined by CERC, if any, for the financial year in which the bids are invited or the estimated project cost], to be submitted in the form of a bank guarantee along with response to RfS.
 - Performance Bank Guarantee (PBG), to be fixed by the Procurer [but not to be more than 4% (four percent), in case of site specified by the Procurer, and 5% (five percent), in case of site selected by the Solar Power Generator, of the Project cost, as determined by CERC, if any, for the financial year in which the bids are invited or the estimated project cost] to be submitted at the time of signing of the PPA.

Following suggestion are made:

- Earnest Money Deposit (EMD), to be fixed by the Procurer [but not to be more than 1% (one percent) of the Solar PV power project cost, as per Industry standard, to be submitted in the form of a bank guarantee along with response to RfS.
- Performance Bank Guarantee (PBG), shall be fixed by the Procurer but not to be more than 2% (two percent), of the Solar PV power project cost, as per Industry standard, to be submitted in the form of a bank guarantee before signing of PPA.

15. ISTS charges waiver:

As per Ministry of Power's notification dated 13th Feb 2018, for generation projects based on solar and wind resources, no interstate transmission charges and losses for projects that get commissioned till 31st March, 2018. It is requested that for faster growth of renewables, the period may be extended by another 5 years.

16. Removal of hurdles in getting open access

As per Electricity Act, 2003, all the state transmission and distribution utilities are required to provide mandatory open access to consumers desiring to avail power from alternate sources. However, in recent past, it has been observed that state Discoms have become increasingly reluctant to grant permissions and have practically blocked the growth of open access market. In the states, where permissions are being granted the cross subsidy and additional surcharge has been made prohibitively high which renders the alternate source of power unviable.

Open access as a concept was introduced to promote competition in electricity market and hence needs to be promoted. It is requested that state DISCOMs be mandated to allow certain percentage of consumers to opt for open access. Further, cross subsidy surcharge and additional surcharge must be revised and be brought to rational levels.

17. Land Issues

Land acquisition has been one of the biggest bottlenecks in installation of renewable energy projects and often is only factor that results in delays in project execution. Some of the suggestions in this regard are provided below:

- **Identification of Wasteland & Allocation for RE Projects:** Wasteland in all States should be identified. Govt. should formulate a policy for allocation of wasteland to RE Projects with associated infrastructure
- **NA Conversion of land:** Allow exemption for NA Conversion / Deemed Conversion of land for RE Projects (no fees to be paid)
- **Exemption from Ceiling Limits:** RE Projects may be exempted from taking approval for land ceiling limits
- **Time Bound Approvals:** States should formulate policy regarding timelines for approvals, which should be strictly adhered to
- **Acquisition of Patta land / Khatedar Land:** Allow acquisition of patta land / leased land on right to use basis
- **Exemption from payment of Registration Fees & Stamp Duty:** Allow 100% exemption from payment of Registration Fees & Stamp Duty for setting up of RE Projects
- **Digitization of Land Records:** States to speed up digitization of land / revenue records

We sincerely hope that you will acknowledge the concerns of industry in this matter and take affirmative action. We will be happy to meet you in person and explain the issue in detail at a mutually convenient date and time.

Thanking You

Your Sincerely



Praveen Golash
Joint Secretary
Solar Power Developers Association