

A Multi-Stake Holder Inputs

to

The Draft Policy of the Phase II of the National Solar Mission

27th December 2012

Background:

A core group of Renewable Energy stakeholders and enthusiasts came together a few months ago to work on an idea of setting up of a Multi-Stakeholder Advocacy Platform for Renewable Energy Solutions and development in India, which would be “technology neutral”, “size neutral”, “geography neutral” catering to both electricity and other forms of energy. The idea is to provide inputs to the Governments (both Union and States) on promotion of renewable energy deployment, development and up-scaling the same.

To take the idea forward, a meeting of stakeholders from across the spectrum was organized in Delhi on the 12th July to test the mood of the stakeholders on whether such an idea appealed to them too. The response for setting up of a platform for Renewable Energy was enthusiastically supported unanimously by the 50 odd representatives who attended the meeting, as well as from others who could not be physically present.

With the confidence of the support from stakeholders, it was decided to go ahead with the setting up of the platform, with the first step being the preparation of a detailed business plan and a road map for action for the coming years. This process has been completed and the formal registration of the platform is in progress.

While the process of setting up of the platform is work in progress, the opportunity as a “multi-stakeholder collective” to input into policy formulation arose with the draft policy for the Phase II of the National Solar Mission being announced by the Ministry of New and Renewable Energy and inviting comments from stakeholders.

In view of this, a stakeholder consultation was organized on the 19th December 2012 at Delhi for the sole purpose of getting stakeholder views on the “Draft Policy of Second Phase of the National Solar Mission”. A total of 20 stakeholders were physically present, while a few others sent in their comments ahead of the meeting.

Presented below are Platform’s views of the draft policy, with detailed recommendations on issues, based on concerns expressed and inputs provided by stakeholders.

Gratitude to MNRE:

At the outset, we the platform members express our profound gratitude to the Ministry of New and Renewable Energy, for inviting comments on the draft policy. We believe that such a consultative approach would go a long way in involving stakeholders to give their perspectives in policy formulation.

I. Summary of Recommendations

1. The current formulation of policy is a combination of a policy and strategy document and therefore, the platform recommends that the document makes a clear distinction between policy and strategy.
2. From a policy perspective, this presents an opportunity for the Government to come up with policies that would put India on a Long Term Low Carbon Energy Pathway by creating an environment that would facilitate investments to achieve this.
3. From a strategic perspective, the policy document should also identify areas such as transmission infrastructure development, RPO compliance, creating a renewable power market, facilitating global cooperation on technology and financing, tapping the Green Climate Fund of the UNFCCC, environmental protection amongst other issues, which predominantly falls in the domain of the Central Government.

Grid Connected

4. All Solar Technologies should require same treatment and therefore recommends that the targets for Solar PV and Solar CSP being kept flexible, with the minimum for CSP and PV both being set as 30% of the total target set for the period 2012-2017, with decision on remaining 40% as progress is achieved (around mid 2014)
5. In parallel to supporting solar PV, to ensure that a market for CSP projects is created, the Government should support projects that are already under execution to ensure and enhance investor confidence. Further:
 - a. A few demonstration projects that showcase the technical capability of CSP particularly with thermal storage be encouraged.
 - b. For CSP with storage, introduce appropriate tariff rationalization mechanism (peaking power benefits or separate bidding for storage based projects) should be considered.
 - c. While recognizing that the off-grid market for Solar PV is already mature and therefore, to create an environment for markets for off-grid application of CSP, a sub category for benchmarking tariff be done for small capacity CSP systems with thermal storage in areas where biomass is scant, while the same also done for small capacity solar biomass hybrid systems.
 - d. As separate policy for meeting the peak demand requirement “Peaking Power Policy” is on the anvil, and could look at CSP for preferential treatment, and same should also be reflected in the Solar Phase II guidelines.
6. Instead of Domestic Content Requirement being prescribed as a pre-requisite for selection, price or purchase preference could be considered for projects having a certain minimum percentage of domestic content. In order to encourage domestic industry, offer of tariff based incentives to the developers who are using the domestic modules

would be a good solution.. Further, Domestic Content Requirement should be same across all technologies.

7. Provide adequate support to State Government for setting up of a common evacuation infrastructure for solar generation projects.
8. Electricity Utilities should be encouraged to provide a good grid infrastructure, “Renewable Purchase Obligation” compliance and timely payments to solar developers by incentivizing (for instance to the extent of Rs. 0.25 per unit of solar power). This would lead to maximum leveraging of Central Government funding, while ensuring expansion of market and payment guarantees. It is well known that most utilities are cash starved and have a problem with payments to renewable power generating companies. An incentive to the utilities that fulfill renewable power Obligations could be given an incentive of this additional input from the Union Government. This could be at varying rates for solar power and other forms of renewable power.
9. The National Clean Energy Fund should be leveraged and utilized for funding infrastructure strengthening projects
10. The Government intention to actively tap the Green Climate Fund of the UN Framework Convention on Climate Change for its renewable/solar energy projects should be incorporated.
11. Extend the option of “Long Term Concessional term/rate Finance”, as against Viability Gap Funding upfront. The Long Term Concession finance could be either through IREDA or Commercial Banks or a combination of IREDA and Commercial Banks. This could also be in the form of refinancing commercial banks that extend debt fianace on the basis of "Project Viability' rather than one based on balance sheets of promoter companies.
12. Alternatively and additinally, the government may explore recurring VGF instead of a Fixed VGF, though, it is acknowledged that such recurring VGF would be very similar to Generation Based Incentives (GBI).
13. Support Payment Guarantee by Utilities to the developers by means of sovereign guarantees and/or incentives.
14. Explore options of creating a State level Cess on conventional power that could help fund some of these projects.
15. Explore the possibilities of sensitizing commercial banks to support renewable energy projects. Right now, most of the funding from commercial banks are merely “balance sheet funding” and not project funding. It is suggested that the policy document address the issue of bank financing for the renewable energy and particularly the solar sector.
16. Explore the option of creating a consortium of banks resulting in a renewable energy dedicated fund to ensure that renewable energy developers can get funding

17. National Clean Energy Fund, which is currently proposed for creating solar parks, should also be used for funding infrastructure and large scale solar generation projects.

Energy Access

18. Come up with institutional mechanism that would promote business models, create entrepreneurial capacity building, promoting social entrepreneurship and creating an environment which would bring in investors.
19. The package for energy access should address holistic energy needs of consumers and not just lighting needs. Therefore, there is no need to specify and restrict the loads of the consumers as the developers have the ability to provide for the needs of the households according to their purchasing power, household structure, and capacity of the mini-grid. What the government needs to specify is the minimum electricity that it is willing to subsidise. Extra electricity should be paid for by the consumers. The focus needs to be on performance.
20. There is a need to assess the past successes and failures of remote village electrification programme and of Phase I and frame a package of solutions which are based on the learning and lessons from Phase I implementation
21. The role of banks, especially cooperative banks and societies, in delivering subsidies to rural areas is crucial for the implementation of off-grid lighting. They need to be included in the implementation -plan of the mission. There are examples of how HDFC gives term loan for solar pumps or banks in Tamil Nadu now looking at options for financing renewable energy off-grid applications. Lessons from these could be used to incorporate the inclusion of banks and financial institution in the implementation plan
22. Other innovative models of financing needs to be worked out for off-grid electrification
23. While promoting mini-grids, the design should ensure that the systems be grid interactive when the conventional grid reaches the village. This will ensure that the tail end of the grid is not weak, help in strengthening the supply in a decentralised manner and importantly be sustainable in the long run. In the absence of this, the decentralized systems tend to collapse once grid connectivity reaches the village. This acts as a disincentive to investors.
24. The Policy should encourage hybrid systems for off-grid electricity generation too. Right now, there is no mention for hybrid system in any of the off grid schemes.
25. The multiple schemes for decentralized off-grid systems needs to be better coordinated if not merged and simplified

II. Additional Comments on Land and Environmental Issues

The current formulation of the Policy seems to indicate that it is not purely a “policy document” but a combination of a “policy and a strategy” document, with targets. It was therefore felt, that considering this, a number of issues, which a policy document would address is found missing. These are specifically related to:

- a. Land Allocation: What process shall be followed in land allocation? What would be the role of the Central/State governments? What are the policy mechanisms that would need to be put in place to ensure that land is made available to solar energy developers at an optimal rate, factoring in the competing use of land, jurisdictional issues (State Vs. Central Government), current difficulties or bottlenecks in converting agricultural land to commercial/ industrial land and so on. On land, there are also issues related to site location. These issues need to be made clear in the policy document, which ensures that a developer factors in all these norms and regulations before deciding on setting up the project. Yet another issue on land that came up was to come up with a set of criteria in identifying the locations for setting up solar parks. Central Government shall work with states to come up with land allocation policies including land conversion modalities.
- b. On siting of the project location, there is insufficient data available on solar insolation. While, there are 60 monitoring stations set up all over India to assess solar isolation and 60 more are being proposed, MNRE needs to ensure that the data is made available easily to developers well in advance to enable them to identify and choose the right site for setting up projects.

III. Highlights of discussions held during consultations:

1. **All Solar Technologies should require same treatment:** Other overarching comment on the draft policy is related to the higher focus on Solar Photo-Voltaic rather than CSP. The general mood of the stakeholders was that the allocation or targets for CSP was kept low, probably due to higher costs. Their fear was that, with 1,620 MW capacity creation of CSP up to 2017 resting with the State, getting the support from states for CSP projects may not be very forthcoming in light of the declining costs of Solar PV solutions.

But having said this, it was not that the platform believes that PV is inferior to CSP, but, felt that equal footing needs to be given to all technologies to ensure that technologies which are currently costlier can also compete in an environment which is conducive to its growth.

The views of the participants on CSP are as follows:

- CSP needs to be given the strategic importance of being in a position to provide energy security and power on demand. It has the capacity to meet the peak demand requirements and for a country like India, where peak demand shortages are huge, CSP would help to address this lacunae.
- Even the cost reduction potential for CSP is very high as technology related costs will keep declining as more volumes are added and a distinct possibility of the major components being indigenised. CSP as a hybrid option should also be explored. Hybridization of CSP with Gas and or Bio-mass would help meet the peak demand energy requirements of India.
- Small CSP (technologies are now available) in hybridization with bio-mass is also a good option for rural energy deployment to ensure energy access in rural India.
- CSP with thermal storage would increase the cost of installation and commissioning and therefore without adequate budgetary support from the Government, these projects are not likely to see the light of the day, Having said this, CSP's main advantage is its dispatchability through the use of competitive thermal storage technologies and hybridization to meet peak power requirement. Thus, appropriate tariff rationalization mechanism (peaking power benefits or separate bidding for storage based projects) should be considered.
- **Last but not the least, it was recognized that CSP in a hybrid mode could serve extremely well as both Grid as well as off-grid energy solution.**

2. Domestic Content Requirement:

- i. Of the six options on "Domestic Content Requirement Proposed", most stakeholders were of the view that, the first option, which suggests no usage of imported modules or cells would prove to be disastrous as the targets proposed by the Ministry is not likely to

be reached and it would also have a huge budgetary implications. The general perception was that with this option, in the long run, it would do more harm than good for solar energy penetration in India. There was a general consensus that purchase/ price preference would be an admirable tool to encourage domestic industries.

3. Strengthening Transmission Infrastructure:

One of the key areas where stakeholders felt that the policy document should address is with regard to “evacuation arrangement and improving, strengthening grid infrastructure”. This, they felt was critical to not only incentivize generation from renewables, but also to reduce the rate of failure of projects.

Transmission infrastructure should also focus on strengthening inter regional, intra-state and inter-state transmission network.

Grid Applications:

4. Viability Gap Funding Vs. Generation Based Incentives:

- a. General concerns were expressed about “Viability Gap Funding”, as the general mood of the stakeholders was that “Capital Subsidy” has been the cause of ruin of the Renewable Energy Sector in the past. .
- b. Most people acknowledged the fact the “Viability Gap Funding” in the form of a disguised capital subsidy had the potential to disincentivize performance or generation.

5. Financing

Finance was recognized as a major issue of concern largely because of

- a) No NVVN envisaged in this phase of the solar mission, with the exception of a small component of 800 MW
- b) No Schemes per se in the current formulation of the policy that would support Power Purchase Agreements.

Further the Government should explore the possibility of setting up an exclusive fund to enhance the implementation of solar mission. In this direction, the should explore innovative source of financing which can feed into the fund and which could not only provide the finance for renewable energy project but also provide it at a reduced cost from the current level. The Fund can then make financing available to renewable energy project developers/financers either through direct funding or by way of providing interest subsidies.

Specific Comments on Proposed Strategies for Off-Grid Applications:

6. The general perception amongst stakeholders is that, there is a lack of clarity on off-grid programmes in the draft policy. First, the targets for energy access, which is 20,000 villages over a period of 5 years was too small a target. Further, considering that the draft policy does not have a concrete approach or a road map to achieve the target, the group felt that even this target, though small it is, will be difficult to achieve without a comprehensive package.
 1. Capital Subsidy on Current Decentralised Renewable Energy Schemes:
 - i. The promotion of grid interactive mini-grids is necessary. But the financing model needs to be creative in order to sustain and upscale the operation at a commercial level.
 - ii. Stakeholders opined that “Capital subsidy” based model will not work.
 7. On Energy Access:
 - a) The current formulation seems that the energy access programme is just a lighting initiative
 - b) The target of 20,000 villages is extremely low.
 - c) There are multiple schemes right now and seemingly no coordination between or amongst them
 8. For Roof Top Solar Application, the current scheme of subsidizing 90% for only up to 1 kW systems will not encourage large establishments such as hotels and resorts to opt for such systems. Therefore, it is recommended that the cap on 1 kW be increased to say 10 kW but the subsidy amount could reduce
 9. For Solar Water Pumping systems, the policy document seems to refer to only DC pumping system. AC pumping systems should also be brought into the subsidy scheme.
 10. On Industrial Heating, the policy currently talks of allocating subsidies for a target which is determined in terms of area. This should be replaced by capacity.
 11. There is a desperate need to develop a comprehensive view of the multiplicity of schemes that are promoted by the Ministry of power and the MNRE. Efforts also need to be made to dovetail the road lighting scheme with that of PMGSY (Rural Roads Programme) of the Ministry of Rural Development.
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