Policy Framework

RENEWABLE ENERGY BASED MINI GRIDS

THE NEW PARADIGM FOR LAST MILE ELECTRICITY DELIVERY - READYING INDIA'S STATES

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Smart Power initiative has changed the rules of the game. Its innovative approach to establishing viable and sustainable Mini Grids has set off a revolution in the rural electrification space.

NATIONAL POLICY – UPBEAT ABOUT MINI GRIDS!

The Government of India has set itself the ambitious task of providing 'Power for All' by March 2019. The target is to connect around 240 million people (IEA, WEO India Report 2015) with reliable and affordable round-the-clock electricity supply. To achieve this objective, the Government is prioritizing grid expansion and strengthening, decentralized distributed generation, utility reforms and other measures under various initiatives such as the Deendayal Upadhaya Gram Jyoti Yojana (DDUGJY), National Solar Mission, 24x7 Power for All, Ujwal Discom Assurance Yojana (UDAY) and others.

Decentralized Renewable Energy (DRE) is an important last-mile intervention that has been successful in meeting the electricity needs of rural India. DRE-based Micro and Mini Grid solutions offer a number of technical and economic benefits – low gestation periods, reasonable size and economy, capacity to supply to domestic as well as enterprise loads, and the ability to interact with the utility grid. Once seen as an interim solution, Mini Grids are now viewed as a potential option to complement distribution company (discom) supply. A number of Mini Grid models have been successfully implemented in various parts of the country, particularly in States such as Uttar Pradesh (U.P.), Bihar, Chhattisgarh, Odisha and others. In the past these could not be scaled up because of the sector's uncertain policy and regulatory environment.

However, there have been several promising developments in this space. The amendments to the National (Power) Tariff Policy, and the drafting of a dedicated National Mini Grid Policy showcase India's intent to seal the gaps in policy for Mini Grids development and provide support for large-scale implementation of projects.

The Government of India revised the Tariff Policy in January 2016, which has now, for the first time, taken a comprehensive view of the power sector in the backdrop of achieving 24x7 supply. Interestingly, the policy acknowledges the role that Mini Grids can play in India's unserved and under-served areas, the substantial first costs associated and the risk to asset investments once the discom grid arrives. To de-risk the Mini Grids, the policy recommends that the discoms purchase power from them. The State Electricity Regulators have been asked to develop suitable regulatory mechanisms to support such transactions.

The Ministry of New and Renewable Energy (MNRE) is preparing a National Policy aimed at deploying 10,000 renewable energy based Micro and Mini Grids over the next five years to improve last mile access and supply clean power. The policy is expected to lay the essential terms and conditions for Mini Grid deployment for programs operated by the MNRE and recommend guidelines to States on project development, operations and maintenance. To promote participation, especially of new and relatively smaller ESCOs, a relaxation of certain

Mini Grids are expected to spur economic development by enhancing last mile access to clean and reliable electricity

norms is under consideration. One such relaxation is in the current requirement of accreditation from credit rating agencies necessary for empanelment and thus eligibility to access benefits such as central subsidies. The policy also proposes training support for potential Mini Grid ESCOs. For ensuring uniform and minimum performance standards across the sector, the policy envisages applying essential technical, safety and service delivery norms. For the sustainability of Mini Grids, in the context of co-operation with the discom grid, the policy has suggested alternative frameworks to allow them to exit or to co-exist. The projects are allowed to function in a standalone mode or feed the surplus power to the discom's grid.

The State Nodal Agencies (SNAs) are responsible for governing RE policies and implementing the programs in the States. The policy anticipates that the SNAs will assume a much larger role by accepting additional tasks such as collating and maintaining project information, monitoring performance, housing a single window channel for ease of project development, resolving grievances, facilitating ownership-transfer procedures, assisting regulatory matters and requests etc.

The endorsement of Mini Grids in the National Tariff Policy is the turning point for far-reaching and progressive changes and the announcement of the National Policy is one such immediate outcome at the national level. Such national measures will play an important role in providing market direction, impetus and in setting the tone of growth for the sector. It is crucial to make sure that on-the-ground challenges do not offset potential gains.

FROM ROAD MAPS TO REALITY: FACING IMPLEMENTATION CHALLENGES

ESCOs that implement Mini Grid projects face a number of challenges such as identifying appropriate project sites, procuring land, obtaining right-of-way sanctions, consent from local governments and other approvals. They also face the impending risk of competing with the local discom. Mini Grids will have to address several technical and operational challenges while interacting with the national grid. This operating environment is slowing down the evolution of a strong Mini Grids ecosystem. This has affected financing, stifled the growth of existing companies and constrained new companies from entering the space.

It is thus evident that the Mini Grid ecosystem requires a change. Policies, regulations and implementation frameworks need to complement the national policy, especially by addressing aspects around ease-of-doing-business and future risks to the assets and investments.

STATE GOVERNMENTS HAVE A BIG ROLE TO PLAY! UTTAR PRADESH: THE BELLWETHER STATE FOR MINI GRID DEVELOPMENT

The States of Uttar Pradesh, Bihar, Madhya Pradesh and Odisha are keen on introducing measures for Mini Grid deployment. Uttar Pradesh (U.P.) is the most populous State in India, with the largest number of people without access to electricity (around 85 million - IEA, WEO India Report 2015). It is also the first state to announce a Mini Grid Policy and regulations for implementation. It is interesting to observe that parallel initiatives are being undertaken by the Central Government and in Uttar Pradesh to build supportive frameworks for Mini Grids.

U.P. State's "Mini Grid Policy" aims at meeting the minimum power requirements of nearly two crore households located in un-electrified habitations, hamlets or majras, and in areas with limited electricity supply. The policy in particular, appeals to the private sector, by offering investor-friendly implementation options and project development support in the form of single window clearances, access to training and other infrastructure as required. The regulations that followed the policy in quick succession recommend a landmark framework – they categorically allowed Mini Grid-based ESCOs to operate in grid covered areas, and offered them options – to work in a standalone mode, interconnect with discom's grid for sale of power, or co-operate as a distribution franchisee – among other features.

U.P.'s Mini Grid Policy and the supporting regulatory framework are a promising first step for the State. Many experts note that more clarity is desired on the implementation of the policy and regulations. The U.P. Government is now considering the development of an implementation framework for the "Mini Grid Policy" that will determine the responsibilities of stakeholders, capacity requirements and other mechanisms. The U.P. Electricity Regulatory Commission is preparing supporting documents in view of the incumbent regulations including templates for the terms of sale of power, franchisees, and grid interconnectivity arrangements etc. The confidence of both, the U.P. government as well as the regulator, in Mini Grids as a solution for last mile access, as well as the synergy between the government and the regulator on the subject area are very encouraging. The state level policy implementation framework should now ideally target to converge the provisions of incumbent policy and regulations.

It is also now expected that other states which have shown interest – including but not limited to Bihar, Odisha, Jharkhand, Chhattisgarh and Madhya Pradesh – may fast track their efforts to adopt supportive policies and regulations.

Mini Grid solutions are a potential option to complement the distribution company's power supply

BUILDING CAPACITY FOR IMPLEMENTATION – A CRUCIAL NEXT STEP

The draft National Policy as well as the UP Policy have allocated significant additional responsibilities to SNAs that go beyond the customary roles of governance and management. For effective implementation, it is crucial for SNAs to strengthen their capacities with essential managerial and technical competencies, which will need substantial funding. The Central Government and State Governments should consider committing capacity-building resources to SNAs for ramping up their capabilities, and consider collaborating with funding agencies for support.

CONCLUSION

In summary, interventions by the Centre and the progress in U.P. has certainly buoyed the stakeholder mood for Mini Grids in India. ESCOs, financial institutions and governments should ride this wave of momentum and respond appropriately. Important lessons can be drawn and applied from the progression seen in the solar rooftop PV sector in the country. A credible National Policy fortified with enabling State-level frameworks and empowered SNAs can lead to the evolution of a vibrant Mini Grid sector. This also provides a scope for initiating discussions with the Ministry of Power to include Mini Grids in their larger discussion of the electrification plan for the country.