

Comments on Draft Policy Framework for developing and promoting Decentralized Renewable Energy (DRE) Livelihood Applications in Rural Areas

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About AEEE

Alliance for an Energy Efficient Economy (AEEE), is one of the leading organizations in India that works on creating awareness about energy efficiency as a resource. It is a policy advocacy and energy efficiency market enabler with a not-for-profit motive. We advocate for data-driven and evidence-based energy efficiency policies and research.

We foster a culture of energy efficiency in India, working with industry, government and civil society organizations. AEEE advocates for Thermal Comfort for All, and a Lean-Mean-Green philosophy to design and construct net-zero energy-water-waste built environments, Sustainable Transportation and robust Energy Data Framework for better policy-making and implementation, to build a culture of energy efficiency in India. We are committed to achieve India's energy transition for a climate-resilient and energy secure future and meet India's commitments to the 2030 nationally determined goals (NDC) and UN sustainable development goals (SDG).

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Alliance for an Energy Efficient Economy

Overview

Ministry of New and Renewable Energy (MNRE) proposed a draft policy framework on 19th October 2020 for the development and promotion of DRE livelihood applications for rural India, to foster large-scale adoption of these applications. The draft policy has specified that there are various models and pilots which have been implemented on ground and have a considerable potential to become scalable. With an aim to promote DRE livelihood applications, the draft policy framework is focused towards enabling a market-oriented framework for attracting the private sector, providing easy access to end-user finance, supporting research and development (R&D) of low-cost and efficient DRE livelihood applications, setting standards & testing protocols, monitoring and evaluation mechanisms and, capacity & skill development at the local level.

AEEE appreciates the Ministry's recognition of the importance of DRE livelihood applications for rural households and preparation of the draft policy framework for promoting these applications. In a project by AEEE titled "[Increasing Energy Access by Using Super-Efficient Appliances in Rural Homes and Productive Businesses](#)", we also observed during surveys and interactions with rural communities, that after meeting the primary requirement of lighting, households demand productive appliances which could generate income. Further, the significance of the DRE powered livelihood applications in generating jobs and income becomes more critical in the current COVID-19 situation, and therefore providing a conducive environment for development and large-scale adoption of these applications is important.

We present comments on the draft policy framework and recommendations on what to include in the final policy.

Summary of Recommendations

General Comments

In this section, we present broad observations on the draft policy framework to promote DRE livelihood applications relevant for rural areas.

1. The draft policy framework emphasizes "DRE" applications, and the indicative list suggests standalone DRE applications. The policy should include energy-efficient livelihood applications that can work in hybrid mode, i.e. on DRE as well as with grid electricity.
2. While we note that this policy framework is clearly for DRE "**livelihood**" applications, some applications such as DRE cold storage, cold room, etc. are equally critical for rural primary and community health centres, and can make a significant impact in reducing vaccine loss and in improving the availability of healthcare services in rural areas. This policy could be defined to include such DRE applications. Alternatively, the Ministry can consider coming up with a similar policy for DRE applications for healthcare, aligned with MoH&FW's "*Scheme For Improvement of Medical Services*" and "*Procurement Of Drugs And Equipment Under Reproductive And Child Health Programme*". Apart from improving the

health and wellbeing of rural residents, improving rural health services also provides job opportunities in healthcare.

3. The policy framework is weak in terms of financing, with limited focus only on end-consumers. Entrepreneurs also require financing to develop new applications and to deploy existing ones.
4. The draft mentions that DRE applications will be energy efficient, but there is a need to define energy efficiency and how it will be ensured that products are energy efficient. Bureau of Energy Efficiency (BEE), being the esteemed agency under Ministry of Power (MoP) with the critical role to define the energy performance parameters for various equipment and appliances, could play an effective role in providing overall support to MNRE to define the minimum energy performance standards (MEPS) and to develop energy performance labels for DRE livelihood technologies/applications under BEE's Standards and Labelling (S&L) programme¹.
5. A key objective to be included in the policy is to create awareness among rural communities about how such applications can improve incomes. For example, targeted consumer campaigns such as display through mobile vans or live demonstrations, creating goodwill ambassadors, will help scale demand for such applications, thereby creating a competitive market for DRE livelihood applications.
6. One of the key findings of AEEE's project was that the number of suppliers is limited for productive appliances as it requires customization based on the local requirements. Therefore, there is a need to identify an indicative list of applications covering relevant areas and geographies.
7. The policy should also mention the role of state-level government bodies for supporting the DRE enterprises in developing their market linkages and market infrastructure for fostering deployment and promotion of DRE applications in rural areas.
8. The policy should also more specifically define the role of civil society organizations (CSOs) for extending their overall support in the mentioned interventions.



¹ S&L program initiated by the Bureau in 2006 under the section 14 of the Energy Conservation Act 2006, has prepared a framework for assessing the performance standards and rating criteria for appliances and equipment. The programme is one of the most cost-effective tools for enhancing energy efficiency, appliances and equipment performance which would eventually lead to lowering the energy consumption as well as cost for the users.

Specific Comments

This section provides comments on specific sections of the Draft Policy Framework for developing and promoting Decentralized Renewable Energy (DRE) Livelihood Applications in Rural Areas.

Section	Remarks
<p>Section III. Scope and Objectives of the Framework</p>	<ul style="list-style-type: none"> » The framework highlights the importance of finance for end-consumers. However, financing requirement is equally critical for entrepreneurs to develop livelihood applications, and this should be included in the policy. » The recognition to create an ecosystem to encourage private sector participation is appreciated. This should notably support local entrepreneurs and could take advantage of various ongoing schemes to promote micro-entrepreneurship and financing such as Sustainable Finance Scheme, Pradhan Mantri Mudra Yojana, MSME Market Development Assistance, etc. » One of the key objectives should be to create large scale awareness among rural consumers about the existence of such DRE solutions, and how such applications can improve productivity and incomes, as well as reduce drudgery. » The focus on skilling the local people to generate employment opportunities in operations and maintenance of these applications is a welcome step.
<p>Section IV. Interventions to promote DRE livelihood applications in rural areas</p>	<ul style="list-style-type: none"> » Assessment of Demand The policy framework rightly includes demand assessment for DRE applications, which is critical to identifying and promoting the applications most in demand. The policy should define the role of regional (state, district, village) stakeholders and CSOs to target applications based on the type of primary activity done in a specific area, for example, type of crops grown, poultry farming, sericulture, etc. » Research & Development and Standardization The policy mentions standards, monitoring and evaluation framework. As this market is at a nascent stage, it is essential to define the phase-wise approach for standards development, implementation, and monitoring and evaluation. The standards could be voluntary initially to allow the market to thrive, and then made stringent as the market develops. Here, the role of BEE could be defined, being the agency under MoP that operates the S&L program. The policy should include energy-efficient livelihood applications that can work in hybrid mode, i.e. on DRE as well as with grid electricity. That way if the renewable energy resource is scarce, the application can work on grid-based electricity. If grid power is unreliable, then the application can work on DRE, thereby making the application available for use for more extended periods, which is critical to making a positive impact on rural incomes.

Section	Remarks
	<p>» Pilot and Up-scaling of DRE livelihood applications</p> <p>Instead of doing pilot projects, the better approach would be to collect data on existing successful DRE livelihood applications to highlight the contribution of such applications in increasing incomes, financing mechanisms used, repayment structure, default rates, etc.</p> <p>The policy should also specify the need for an evidence-based approach by the continuous real-time monitoring and evaluation of the deployed applications to collect data on their energy performance and usage pattern, assessing the impact of the deployed application on the rural community, its capital and operational cost and, the payback period.</p> <p>» Access to Finance</p> <p>The point on finance needs a more comprehensive approach considering the financing requirement for consumers as well as entrepreneurs and should promote financing through SHGs, cooperatives, etc., which will provide additional benefits. The policy should also consider financing for OpEx to support Pay-as-you-go business models.</p> <p>» Skill Development & Capacity Building</p> <p>Skill development and capacity development should be specified for both end-users and the technicians who install the technology on ground. Live demonstrations and information, education, and communication (IEC) tools could be used as part of the training, for better understanding.</p> <p>In training, apart from the mentioned stakeholders, the role of NGOs and CSOs will also be critical as they work at the grass-root level and have carried out assessments. Emphasis should also be made on providing skill development and capacity development training for the operation and maintenance of the application to rural women; to foster women empowerment and self-reliance.</p> <p>» Public Information and Awareness</p> <p>The policy should define the scope and objectives of dedicated consumer campaigns to target awareness on how such livelihood applications can improve incomes.</p>
<p>Section V. Implementation Agencies and Implementation Cell</p>	<p>» At the state level, SNAs can work in tandem with SDAs (for energy- efficient equipment/ appliances) and relevant state departments.</p>

Section	Remarks
<p>Annexure I. Indicative List of DRE Livelihood Applications</p>	<ul style="list-style-type: none"> » The indicative list should be based upon the priority of adoption and should capture the primary requirement in each region. » In the indicative list, for some technologies, BLDC motor is mentioned. However, the framework remains silent on how to enable the ecosystem for such technologies to make such applications energy efficient. » Annex I mention that Fully Automatic Sawdust Pellet Making Machine will be electricity run. Can this machine run on DRE? If yes, then only will it qualify under the existing framework? » The following appliances should also be included in the indicative list of DRE Livelihood applications, as they are currently in-demand livelihood applications in rural communities: <ul style="list-style-type: none"> • Blacksmith blower • Hammer mill • Chaff cutter • Photocopy machine • Roti rolling machine • Honey processing plants • Dal processing machine • Rice Hullers • Milking machine » The term energy-efficient should be defined to bring clarity about which application is most and least efficient. This will also help the end-user to make a quick comparison while making any purchase decision.
<p>Annexure-II. Indicative List of Schemes of Various Ministries and Departments</p>	<ul style="list-style-type: none"> » This indicative list should also include the BEE's S&L program, which could help MNRE in developing standards and labels for DRE livelihood applications.



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