

## **Addressing the gaps in PM Surya Ghar Muft Bijli Yojana**

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India launched a landmark scheme, the *PM Surya Ghar Muft Bijli Yojana*, in February this year, to support the uptake of rooftop solar photovoltaics (RTPVs) in the country. Under this scheme, residential households are eligible for a subsidy of INR 30,000 per kilowatt (kW) for the first 2 kW and INR 18,000 per kW for an additional capacity of up to 3 kW. With over 1.28 crore registrations and 14.84 lakh applications, the scheme has garnered remarkable interest as highlighted in the recent union budget. However, these numbers reveal a significant gap between registration and application, underscoring the need for a closer examination of the factors inhibiting the scheme's progress.

### **Bridging the gap**

Apart from enabling the diversification of energy sources and reducing dependence on fossil fuels, the increased adoption of RTPVs benefits both consumers and distribution companies (DISCOMs). Thus, improving the scheme's success by reducing the gap between registration and application is crucial for supporting RTPV uptake. However, identifying and addressing the real challenges would need concentrated efforts in a few key areas discussed below.

### ***Assessing the gap through consumer surveys***

A targeted survey could help gather insights into whether financial concerns, procedural hurdles, or lack of information are the primary barriers to consumers not following up with their applications. Further, understanding these reasons will enable the government to tailor its approach, addressing specific concerns and ensuring that more registrations translate into applications.

### ***Role of DISCOMs***

DISCOMs are crucial to the scheme's success, yet there is a perception that promoting RTPV uptake might adversely impact their finances. This is because consumers would generate their own power, resulting in the loss of consumer base for DISCOMs. However, this perspective overlooks the potential financial benefits that RTPV adoption can bring to DISCOMs. Integrating RTPVs into the distribution grid would enable generation closer to load centres. This will eventually reduce technical losses in transferring power from distant power plants to load centres through the transmission and distribution network.

Further, DISCOMs need to develop comprehensive plans to saturate RTPV installations across all government buildings. A state-level common window or platform should be developed to bring in different departments under one roof, enabling aggregation of various department funds. By aligning internal efforts with the scheme's criteria, DISCOMs can maximise the financial benefits through incentives while significantly advancing RTPV deployment.

### ***Providing targeted subsidies***

Analysing the state-wise application data from the scheme's portal reveals a higher interest towards the scheme in states where residential consumers do not receive free or subsidised power supply. Thus, although subsidised or free power is seemingly beneficial to consumers in the short run, it poses a significant barrier to RTPV adoption. By rechanneling the existing subsidies towards RTPV deployment, states can encourage consumers to adopt these systems. Further, targeted subsidies in the form of tax rebates or low-interest loans would be helpful in offsetting the initial costs. Such measures would make RTPVs financially appealing to consumers, enabling them to make the switch despite the availability of free power. However, this transition should be managed carefully to avoid adverse effects on low-income households.

### ***Adopting cohesive policies***

The success of the scheme also depends on the coherence between various government schemes. By bringing multiple schemes under a single umbrella, the government can pool resources and streamline the process for consumers. For example, the *Pradhan Mantri Awas Yojana*, which aims to provide affordable housing, could be linked with the *PM Surya Ghar Muft Bijli Yojana*, providing additional benefits such as free electricity supply and a simplified installation process to beneficiaries.

### ***Exploring business models***

Innovative business models are also crucial in achieving increased RTPV deployments. One such model is the crowdfunding model coupled with a roof-renting mechanism. With a high population, not everyone owns a roof suitable for deploying RTPV systems. Further, consumers owning a house may not be financially stable enough to invest in RTPVs. To address these challenges, the proposed model would allow interested individuals to pool their investments, which could then be used to install RTPV systems on rented rooftops. Homeowners would benefit from rental income or a share in energy savings, while investors would gain either a reduction in their electricity bills or earn revenue through the sale of energy.

### **Conclusion**

The *PM Surya Ghar Muft Bijli Yojana* is a significant step towards achieving India's renewable energy goals, but its success depends on addressing the barriers that currently hinder RTPV adoption. By understanding the gap between registration and application, empowering DISCOMs, rechanneling subsidies, and developing cohesive policies, the government can ensure that this scheme not only meets but also exceeds its targets.