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Realities of renewable energy in India

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While India's progress in the renewable energy sector has been impressive, effective implementation of the RPO framework is crucial

Recently the Union ministry of new and renewable energy (MNRE) asked the ministry of power (MoP) to make the Renewable Purchase Obligation (RPO) compliance mandatory for states if they want to avail funds for financial restructuring of their utilities. Photo: Bloomberg

Recently the Union ministry of new and renewable energy (MNRE) asked the ministry of power (MoP) to make the Renewable Purchase Obligation (RPO) compliance mandatory for states if they want to avail funds for financial restructuring of their utilities. RPOs, put simply, are the minimum percentages of the total power that electricity distribution companies and some large power consumers need to purchase from renewable energy (RE) sources. RPO creates a minimum market for renewables in the absence of pricing externalities of conventional power generation.

While the National Action Plan on Climate Change (NAPCC) has set an ambitious RPO target of 15% by 2020, it is the state electricity regulatory commissions (SERC) that set year-wise targets in their respective states. While 28 out of 29 states have such targets in place for solar and non-solar sources separately, there is an increasing concern over actual compliance. Data for a few major states for the last two-three years reveals that barring utilities in states such as Karnataka, most others have failed to meet their RPO targets. Reduction of RPO targets to accommodate the concerns of utilities has been a common measure taken by SERCs. After achieving an RPO compliance of 5.78% in Rajasthan in 2011-12, the Rajasthan ERC reduced its earlier RPO target from 8.5% to 6%. Similarly Tamil Nadu ERC reduced its RPO target from 14% to 9% despite the state utility achieving a compliance of 9.59%. Gujarat ERC allowed its distribution licensees to carry forward the shortfall for FY 2011-12 to be met in FY 2012-13. Considering the excess solar generation in Gujarat in 2012-13 (over its mandated RPO), it allowed the state utility to count this towards compliance of the non-solar RPO to remove the burden on the distribution licensee.

For FY 2010-11 and 2011-12, Maharashtra appeared to have achieved its RPO targets of 6% and 7%, respectively. However, the RPO compliance data collated by the designated state nodal agency, Maharashtra Energy Development Agency, seems to have included renewable energy units wheeled under the network under open access (OA) and credited them to the utility's account. For 2011-12, if one does not consider units wheeled under OA, then the RPO compliance drops sharply to 4.49%. While the regulator did seek the explanation for this counting of wheeled RE towards RPO compliance from Maharashtra State Electricity Distribution Co. Ltd, it did not take any further action in this matter. This issue is bound to come back when the OA consumers' RPO compliance will be taken up. Fortunately, there are encouraging signs with some state ERCs (Maharashtra, MP, UTs, Uttarakhand, Punjab, etc.) beginning to flex their muscles against RPO defaulters. For example, besides setting a deadline to cumulatively fulfil RPOs, Maharashtra ERC has explicitly directed that any future non-compliance would result in the ERC invoking the penal clause from their regulations. However, there are many other steps which state ERCs can proactively take to facilitate this process. An effective web-based automated monitoring and verification system for RE generation/procurement is essential to operationalize compliance reporting. While most state ERCs' RPO regulations indicate quarterly compliance reporting, this is hardly followed up. While India's progress in the renewable energy sector has been impressive in the last few years and needs to be sustained in the years to come, effective implementation of the RPO framework is crucial to meet these goals.

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