

Indian Renewable Energy Sector

**MoP's RPO norms chart roadmap for RE
capacity addition; timely
implementation at state level is the key**

AUGUST 2022



1 Executive Summary



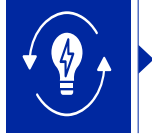
2 RPO and ESO norms notified by the Ministry of Power



3 RPO trajectory and compliance



The notification of RPO and ESO targets remain positive for the sector. However, timely adoption and implementation at the state level remains important to achieve the climate change goals



The Union Cabinet has recently approved India's updated Nationally Determined Contribution (NDC) with commitment to reduce carbon emissions by 45% by 2030 from 2005 levels and achieve a 50% share of non-fossil fuel sources in the installed power generation capacity by 2030, thereby keeping the absolute renewable energy (RE) capacity target flexible against 500 GW, announced at COP26.



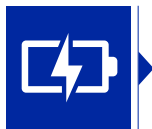
The Ministry of Power (MoP) has notified the trajectory for renewable purchase obligation (RPO) from FY2023 to FY2030 and Energy Storage Obligation (ESO) from FY2024 to FY2030 providing a road map for RE capacity addition. The RPO is set to increase from 24.61% in FY2023 to 43.33% by FY2030. The ESO target is increasing from 1.0% in FY2024 to 4.0% in FY2030 as a proportion of total electricity consumption.



While the notification of RPO and ESO trajectory till FY2030 is a positive move for the sector, the adoption of the same by the state power regulators and compliance with the norms by the obligated entities mainly state distribution utilities (discoms), remain important for achieving the desired scale-up in RE capacity.



The RE capacity, including large hydro required to meet the notified RPO trajectory is estimated to be close to ~400 GW by the year FY2030 considering electricity demand growth of 5.0% over FY23-30. The incremental RE capacity requirement to meet this target over the next ~8 years is sizeable at ~240 GW, translating into annual capacity addition of ~29-30 GW per annum.



The ESO trajectory is expected to aid in promoting the development of storage capacity in the country, over the next few years, with a capacity requirement of ~50-60 GW with 4 hours storage by FY2030 as per the 4.0% target. The storage capacity is expected to be used to meet the evening peak demand and manage the variable generation associated with solar and wind resources.



The compliance to RPO targets by the state discoms has remained modest at less than 70% till FY2022 and has varied across the states. With the inclusion of large hydro power for meeting RPO, the compliance level is expected to improve sharply in the near term. However, with the increase in the RPO targets over the next decade, scale up in RE capacity remains important to meet the prescribed RPO targets.