National Wind-Solar Hybrid Policy â€“ 2018

HIGHLIGHTS

Nodal Agency	Not available
Applicable Technologies	Wind-solar hybrid
Eligibility Conditions	• Any existing wind or solar power plant or new wind-solar hybrid plants. • The rated power capacity of one resource should be at least 25% of the rated power capacity of other resource.
Policy Period	Continues until withdrawn or modified by the government or superseded by another policy.
Policy Goals	To achieve 10 GW wind-solar hybrid capacity by 2022.
Wind-Solar Hybrid Integration	AC Integration: • Both the systems are integrated at LT side using three-winding step-up transformers. • May be integrated at the HT side using separate step-up transformers but both should be connected to a common AC bus-bar. • Suitable control equipment is deployed for controlling the power output of the hybrid system. DC Integration: • DC output of both the plants should be connected to a common DC bus. • A common inverter suitable for combined AC output capacity is to be used to convert DC power into AC power.
Implementing and Monitoring Agencies	Not available

Evacuation Arrangement	Not available for new plants.
Provision for Policy Review	Government will review this policy as and when required.

OTHER PROVISIONS

Hybridization of existing plants	• No additional charges will be levied by the concerned transmission company for connecting the hybrid system to the grid. • Charges may be levied if additional transmission capacity/access is granted. • Any transmission augmentation required up to the receiving transmission sub-station will be the responsibility of the project developer. • Additional solar/wind power generated from the hybrid system may be used for captive purposes, or sold to third party through open access, or to the concerned distribution company at state FiT, or at the lowest bid price discovered by any government agency, whichever is lower, or sold to the distribution companies at APPC under REC mechanism. • Additional solar/wind power procured from the hybrid project shall be used for fulfilment of solar/non-solar RPO, as the case may be.
New hybrid plants	• Hybrid power generated may be used for captive purposes, or sold to a third party through open access, or sold to the concerned distribution company at state FiT, or at the lowest bid price discovered by any government agency, whichever is lower, or sold to the distribution companies at APPC under REC mechanism. • Price of power sold to the distribution company may be determined through transparent bidding process. • Distribution company may use the quantum of purchase of hybrid power to offset its RPO.
Battery storage	• Battery storage may be added to the hybrid project and bidding for hybrid plants including storage systems may be carried out. • Bidding factors may include minimum firm power output throughout the day, or for defined hours during the day, extent of variability allowed in output power, etc., (Amendment dated 13th August, 2018).

Metering arrangement	• In case of AC integration, metering will be done on the basis of AC meters installed on the LT side of the plants. • In case of DC integration, metering will be done on the basis of readings of DC meters installed at the DC output of the plant.
Regulatory interventions	• The Central Electricity Authority and the CERC shall prepare the necessary standards and regulations for hybrid systems.
Incentives	• All fiscal and financial incentives available to wind and solar power projects may be available to hybrid projects.
Research and Development	• Support for technology development • Support for development of standards
References	https://mnre.gov.in/sites/default/files/webform/notices/National-Wind-Solar-Hybrid-Policy.pdf https://mnre.gov.in/sites/default/files/webform/notices/Amendment-in-National-Wind-Solar-Hybrid-Policy.pdf