

File No. 238/4/2023-P AND RA
Government of India
Ministry of New and Renewable Energy

Atal Akshay Urja Bhawan
Opp. CGO Complex, Lodhi Road,
New Delhi, dated 05.04.2023

OFFICE MEMORANDUM

Subject: Waiver of Inter-State Transmission System (ISTS) charges for Green Hydrogen and its derivatives.

Ministry of Power Order no. 23/12/2016-R&R dated 23rd November 2021, provides waiver of the Inter-State Transmission charges levied for solar, wind, Hydro PSP and BESS projects. The said order also mentions that for green hydrogen production plants commissioned upto 30.06.2025, RE power used for production would be eligible for waiver for a period of 8 years from the date of commissioning of the plant.

Further, Ministry of Power notified the "Green Hydrogen Policy" dated 17th February 2022. Point 2 of para 3 states that "*The waiver of inter-state transmission charges shall be granted for a period of 25 years to the producer of Green Hydrogen and Green Ammonia from the projects commissioned before 30th June 2025*".

The National Green Hydrogen Mission targets production of 5 MMTPA by 2030. To meet this target an additional RE capacity of 125 GW will be required. Our aim is to emerge as a global hub for production, utilisation and export of Green Hydrogen and its derivatives. To achieve this goal, Indian units are targeting to produce Green Hydrogen at the cheapest rates (USD 1- 1.5 per kg) in the world. As per estimates 65-70% of cost of production is cost of RE.

It is expected that Green Hydrogen/Green Ammonia facilities will be set up in the vicinity of export terminals and end-use industries whereas the RE production units may be situated in RE rich states, to optimise the cost and CUF of generation. ISTS charges range from Rs.1 -2/ kWh depending on the location and would contribute significantly to the delivered cost of RE. Production of 1 kg of Green Hydrogen requires 55-60 kWh of renewable energy. Therefore, a ₹ 1/kWh increase in delivered cost of RE would increase the cost of Green Hydrogen production by about ₹ 60 (or USD 0.75/kg).

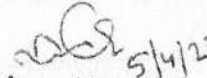
Waiver of ISTS charges could significantly improve the economic viability for plants for production of Green Hydrogen and its derivatives. The current order allows for ISTS charges waiver only for projects to be commissioned up to 30 June 2025. Industry feedback indicates that the construction period for a large scale Green Ammonia facility is likely to be between 30-36 months. So it is unlikely that substantial capacity of projects

is likely to get commissioned by the cut-off date of 30 June 2025. It is accordingly necessary to extend the waiver beyond this date to enable cost reduction for projects.

Additionally, since the likely operational lifespan of a Green Hydrogen/Green Ammonia project would be co-terminus with the RE facility i.e. 25 years, the waiver of ISTS charges would also be necessary for a period of 25 years from the date of commissioning to ensure reduced hydrogen/ammonia production costs for the life of the projects.

In view of the above, it is proposed that no ISTS charges may be levied on RE used for green hydrogen and its derivatives, for units commissioned upto 31.12.2030. This waiver may be provided for a period of 25 years from the date of commissioning of such plants for production of Green Hydrogen and its derivatives. The waiver will be applicable to electricity generated from solar, wind, hydro energy sources including hydro-PSP, Battery Energy Storage systems or any hybrid combination of these technologies, provided that hydro power projects commissioned before March 2019 may not be eligible for the waiver.

This issues with the approval of the Hon'ble Minister of Power and NRE.


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