

SECI/PS/50MW-HYB_RE/NDMC/१०४१५

Date: 03.02.2025

To

Shri Brajesh Kumar Yadav,
Superintending Engineer (Power)
New Delhi Municipal Council
Palika Kendra, Parliament Street,
New Delhi-110001

Sub: 50 MW Solar Wind BESS Hybrid RE Project for NDMC – Reg.

Ref:

1. SECI Offer dated SECI/PT/NDMC/Hybrid/RTC/2023 dated 15.03.2023
2. NDMC consent vide letter No. D-20/EE (SLDC)/2023 dated 18.04.2023
3. Meeting at NDMC Office on 27.01.2025

Sir,

The concept of Firm and Dispatchable RE (FDRE) is steering the energy transition in the emerging era of energy resilience and sustainability, helping unleash the complete potential of renewable sources. SECI has been the pioneer in driving this concept with the objective of minimizing offtake costs of utilities. Reference is drawn to tenders issued for Delhi and Punjab in this regard, where bids were invited for delivery of power as per hourly demand profiles, incorporating seasonal variations.

It may be noted that RE Power Supply Agreements designed specifically for utilities and tuned to their unique demand profiles and concerns, can help utilities transition faster towards sustainability. The proposed 50 MW Solar-Wind -BESS Hybrid RE project is a model project, seeking to deliver power as per NDMC's load profile. The project configuration includes solar, wind and battery storage components which are sized to meet NDMC's load profile with increased reliability. The project shall seek to deliver at least 80% of the average hourly demand as per the NDMC's demand profile shared with SECI. The BESS component, charged from the RE components, can be discharged as per NDMC's preference during specified hours. It may be noted that this is an advance over the recent tenders issued by other REIAs under the FDRE guidelines that specify higher reliability over only certain hours of the day.

With reference to our discussion at your office on 27.01.2025, please refer **Annexure A** comprising summary of the salient features of the proposed 50 MW Solar-Wind- BESS Hybrid RE Project. Please also refer **Annexure B** showing the base demand profile (month-wise hourly demand), derived from NDMC's Load Profile data that the proposed project shall seek to meet.

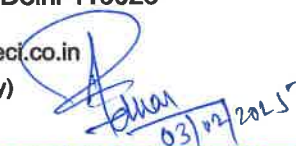
The maximum off take from the Project shall be limited to 50 MW. Power from the project shall be scheduled to meet the hourly demand values specified therein so that at least 80%

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demand is met on a monthly basis. In energy terms, the Project can meet 100% of the annual demand. However, some excess delivery from the project in the winter months (Nov-Mar) viz-a-viz the demand specified is envisaged, which is challenging to mitigate as the project has been sized to meet the higher demand profile in rest of the year.

The project configuration details and the progress details for implementation of the Solar-Wind Hybrid Project proposed vide SECI's Offer for Supply of RE RTC Power from Hybrid Project, are as below:

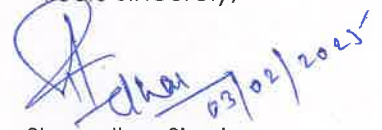
1. **Wind Component** (~ 50 MW) - Land is already available with SECI at the Ramagiri site (Ananthapuram, Andhra Pradesh). SECI has 3 years of Wind mast data available from the site which reinforces bankability of Wind Farm at the location. We are in the process of getting a revised AEP estimation done with currently available WTG models. This exercise is envisaged to be completed in a month time, following which we can initiate the tendering process for Wind Farm.
2. **Solar Component** (~ 60 MW)- SECI is in the process of identifying land in the vicinity of the Wind Sites to develop the project as a co-located hybrid project that would optimise the transmission capacity. Alternately, land elsewhere in Andhra Pradesh is also being explored, from where power can be scheduled to NDMC.
3. **BESS** - Considering that subsidy for 2 MW Hydrogen based storage system is not available, BESS capacity is proposed to be revised from 10 MWh in SECI's original proposal to 20 MWh. This will increase the reliability of supply for NDMC and enable variable times of discharge to meet specific evening and/or morning load.
4. **Connectivity Status** – SECI is in the process of applying for 50 MW connectivity to CTUIL.

With reference to the above, It is requested to confirm the minimum delivery profile provided in the **Annexure B**. It is also requested to confirm NDMC's consent for off-take of power with the ceiling tariff at Rs. 4.5/unit. It would be relevant to mention that the present tariff discovered for similar natured FDRE projects for Delhi are in the range of **Rs. 4.98/kWh-Rs.4.99/kWh**.

The expected timeline for project implementation would be 24 months from the date of consent of NDMC, though it is assured that SECI shall endeavour for earlier implementation of the project. The final tariff will be determined by the Appropriate Commission under section 62 of Electricity Act.

Thanking You,

Yours Sincerely,



Shreedhar Singh

AGM (Projects)