BHAKRA BEAS MANAGEMENT BOARD

Development of 1 MW (4x250 kW) Pilot Surface Hydrokinetic Power Plant (SHKT)

1. Executive Overview & Location

The Bhakra Beas Management Board (BBMB) is deploying a 1 MW (4x250 kW) pilot Surface Hydrokinetic Turbine (SHKT) power plant in the Nangal Hydel Channel (NHC), between RD 94,000 ft. and RD 97,000 ft., downstream of the 77.34 MW Kotla Hydro Power Station in Punjab.

- **Core Objective:** Harvest kinetic energy directly from flowing canal water without modifying civil infrastructure.
- **Business Model:** Zero capex/opex risk to BBMB, zero upfront investment, and a fixed 40-year power tariff.
- **Strategic Impact:** Serves as a scalable national proof-of-concept for canal-based hydrokinetic energy across India.

2. Tendering & Award Summary

- **Tender Floating:** Open tendering launched on CPP Portal on 23.05.2025 under RESCO mode for a 40-year operational term.
- **L-1 Selection:** M/s MACLEC Technical Project Laboratory Pvt. Ltd., New Delhi emerged as L-1 with a final tariff of ₹3.39/kWh.
- **Letter of Award** was issued on 23.10.2025 and the contract agreement between BBMB and M/s MACLEC was signed on dated 20.11.2025.

3. Tariff Adoption:

- The petition was file before the Hon'ble CERC on dated 02.02.2026 and CERC vide its order dated 29.08.2026 has adopted the tariff under Section 63 of Electricity Act,2003.
- In Principal Grant of Connectivity of 1 MW SHKT accorded by BBMB vide connectivity no 3973-77/BMC-213 on dated 06.10.2026.

4. Key Strategic Benefits & Proposal

- **Continuous Clean Power:** Generates clean electricity continuously (24x7) from flowing canal water to bridge base-load gaps.
- **Long-Term Price Lock:** Fixed ₹3.39/kWh price for 40 years protects BBMB partner states from rising fuel and capital costs.
- **Zero Financial Risk:** Entire capital investment, installation, O&M, and operational risks are borne by the RESCO developer.
- Apportionment of power generated through SHKT to partner states as per pre-defined share quota.

5.Present Stage

Project is Scheduled for commissioning in march/April, 2027. After Successful commissioning Pilot SHKT project. BBMB may explore other sites for development of SHKT.

5.14. Location