REQUEST FOR EXPRESSION OF INTEREST

Study of Integration of Battery Energy Storage System (BESS) into Bangladesh Power Sector

Publication date: 09th Dec 2022
Submission date: 29th Dec 2022
Country: Bangladesh
Duration: 8 Months

Description of procurement:

As per SDG agenda, Government of Bangladesh (GoB) is committed to provide reliable, quality and affordable power to all. The reliable grid and distribution system is a challenge. In this regard, incorporating the Battery Energy Storage Systems (BESS) into the grid and distribution system may act as a key technology for efficient transmission and distribution system, energy transition, reliability of service, efficient VRE integration, grid support and carbon emissions reductions. Bangladesh Power sector intends to use Energy Storage Technologies throughout the Bangladesh electricity grid and distribution networks. Furthermore, they can provide infrastructure support services across supply, transmission and distribution, and demand portions of the energy system. Broadly speaking, BESS can serve as valuable tools for operators in systems with supply and/or demand side variability for quality and reliable power flow. This will decrease concern in a transition to increased penetration of variable renewables in Bangladesh. Therefore, the Government is intending to analyze the role of Energy Storage System in the Bangladesh Power System for ensuring quality and reliable power supply. In this process, Power Division, Ministry of Power, Energy and Mineral Resources under the TA for Bangladesh Power Sector Development and Capacity Building (BPSDCB) intends to appoint an International Consulting firm to conduct "Study on Incorporation of Battery Energy Storage System for Reliable and Efficient Power Supply in Bangladesh Power Sector".
The duration of the study is 8 months out of which 6 months for the study and 2 months for the piloting of LithiumIon Battery Storage piloting.
As such, consulting firm must complete the study along with piloting within December 2023.
The required person-month for the project is 40 person-month out of which 30 person-month is for phase I and 10 person-months is for phase II. The pilot study will procure a consulting firm to study (with suitable software) to identify 3 locations to install 1 MW, 2 MW and 3 MW BESS each- from the pre-identified feeders. The firm will be responsible for supply and installation of one of the 1 MW, 2 MW and 3 MW BESS- based on the technical specification in request for proposal (RFP).

Scope of Work:
The main objectives of this assignment are:

- Analyze the role of BESS for quality, reliable and efficient transmission and distribution network;
- Analyze the role of BESS in increasing the share of more efficient Variable Renewable Energy (VRE) penetration into the grid;

- Determine the optimum capacity of BESS systems for three different distribution areas with techno economic analysis; and
- Incorporation of BESS in the distribution network to improve the power quality and reliability.

Eligibility Criteria:

Consulting services are solicited from consulting firms having experience in carrying out feasibility studies of energy storage systems. Consulting firms should have experience to perform consultancy services, experience of similar assignments, experience in similar conditions, firm's capability, and availability of appropriate skills among key staff, availability of resources, relevant transactional experience. The team should have following expertise:

- Power System Expert (Team leader) (position - 1, international, 8 person-months (during phase I: 6 person-months and during phase II: 2 person-months)
- BESS specialist (position - 1, international, 8 person-months (during phase I: 6 person-months and during phase II: 2 person-months)
- Power distribution specialist (position - 1, international, 8 person-months (during phase I: 6 person-months and during phase II: 2 person-months)
- Power sector specialist/ Deputy team leader (position - 1, national, 8 person months (during phase I: 6 person-months and during phase II: 2 person-months)
- Power distribution expert (position - 1, national, 4 person-months (during phase I: 2 person-months and during phase II: 2 person-months)
- Policy expert (position - 1, national, 2 person-months (during phase I: 2 person months)
- Economist (position - 1, national, 2 person-months (during phase I: 2 person months)

For more information, please email to info@tenderingprojects.es