

INVITATION OF PROPOSALS
Market-Based Study of Ancillary Services

Publication date: 30th Jun 2021

Submission date: 20th Jul 2021

Project Country: India

Description of procurement:

India has a large power system with a peak demand of 183 GW , a generation capacity of 382 GW. Ancillary services are an indispensable part of the power system operations, which are required for improving and enhancing security and reliability of the power system. Various types of reserves primary, secondary, and tertiary reserves are required to balance demand and supply, and thereby system frequency within a stipulated band essential for system security.

Experiences in ancillary services (AS) mechanism revealed certain operational and design challenges which have been highlighted by the CERC White Paper titled, Re-designing Ancillary Services Mechanism in India. In the same paper, and subsequently as a part of further discussions, CERC is finalizing a plan to introduce more robust ancillary services framework in the country. Draft regulations for this framework is available on CERC website and public comments have been invited [the consultant is expected to familiarize itself of the draft regulations]. The regulations have suggested using administered mechanism for secondary response, and market-based mechanism for tertiary response.

Even though CERC has strongly advanced the agenda on ancillary services framework, there is a realization that other alternative designs would also need to be studied in detail for secondary response (SRAS) before finalizing a long term roadmap for India [3-5 year horizon], particularly as more and more renewables is added to the grid, and also to provide right pricing signals to fast response technologies such as Battery Energy Storage or pumped-hydro. Further, in case of tertiary response (where a market based mechanism has been proposed), there is also a need to detail out an implementation framework, including running simulations to understand pricing impacts.

Scope of the Work:

As part of WB support to Government of India (GoI) in accelerating energy transitions, The World Bank intends to engage a consulting firm to support in designing and developing an ancillary services implementation framework. The objective of the assignment is to support in:

- a) Developing alternative frameworks for moving to market-based ancillary services (from currently proposed administered mechanism) to achieve fast response, co-optimize day ahead and real-time markets for secondary
- b) Support in detailing the roadmap for implementing the market-based co-optimized mechanism for tertiary response

Submission Requirements:

The World Bank Group now invite eligible firms to indicate their interest in providing the services for the subject activity. Please limit the EoI submission to a maximum of 60 pages. Please note that the total size of all attachments should be less than 5MB. Consultants may associate to enhance their qualifications.

Expressions of Interest should be submitted, in English, electronically through World Bank Group eConsultant2 (<https://wbgeconsult2.worldbank.org/wbgec/index.html>)

Qualification Requirements:

- Experience in similar assignments in international countries/ markets on reforming the power markets (including ancillary markets).
- Experience in power system modelling such as simulating optimized dispatch of power, capacity expansion modelling, IRP etc.
- Experience in assignments in power sector (especially in power markets or optimized dispatch of power) in India
- Provide information on the qualifications of key staff.

For more information, please visit: <https://wbgeconsult2.worldbank.org/wbgec/index.html>