



INSTITUTE OF ADVANCED STUDY IN SCIENCE AND TECHNOLOGY
An Autonomous Institute under Department of Science and Technology
Govt. of India, Paschim Boragaon, Garchuk, Guwahati-781035
EOI for preparation of DPR

Advt. No- 196 (EOI)

Date: 27/05/2019

Expression of interest for engaging a Consultant for preparation of DPR (Detailed project report) on up gradation of power supply at IASST.

Institute of Advanced Study in Science and Technology (IASST) invites Expression of Interest (EOI) application from consultants to engage for preparation of a Detailed project report (DPR) for up gradation of Institute's power supply system from 11 KV to 33 KV. IASST has high performance sophisticated research instruments and equipments in different Blocks/Buildings. To ensure smooth and secure operation of these instruments and equipments reliable/uninterrupted and quality power supply is essential. Therefore, IASST authority planned to replace present 11/.433 kV distribution network by a 33/0.433 kV distribution network to enhance the reliability and quality of power supply. The 33 kV substation of APDCL (work is in progress) located in the IASST campus will provide a 33 kV feeder to IASST and institute has the responsibility to develop its distribution network to supply power to the different Blocks/Buildings. A map of IASST campus has been prepared showing the power capacity (load) of the different Blocks/Buildings along with the locations for setting up the 33/.433 kV substation and place for DGs. This map can be collected (free of cost) from Electrical division of IASST. A detail project report (DPR) of the work has to be prepared taking into account the following items listed below:

1. Selection and Installation of appropriate 33KV/.433 kV transformer(s) based on total load of IASST campus with proper protection scheme in the location shown in the IASST map.
2. Design and Installation of proper Grounding (Earthing) system for 33/.433kV electrical substation in the location shown in the IASST map.
3. Design and Installation of proper bus-bar and distribution panels for Low Voltage (LV) distribution feeders to different Blocks/Buildings of IASST having appropriate redundancy to priority building(s) in the location shown in the IASST map.
4. Utilization of AVR (already available) and Capacitor Bank (already available) judiciously in the LV side feeder for priority load(s) of IASST in the proposed network.
5. Shifting and installation of the Diesel Generator Sets (existing and if necessary new DG can be also proposed) in the location shown in the IASST map.
6. Estimation of the cable capacity/rating for interconnection for the distribution panels to the different Blocks/Buildings of IASST based on power capacity (load) shown in the IASST map.
7. Estimation of civil work for construction of transformer platform, development of switch yard and enclosure for IASST substation (including DGs).

Terms and conditions for preparing the above mentioned DPR are listed below:

1. CPWD standards are to be adopted for preparation of DPR.
2. The DPR shall contain detailed information about the components of the system along with design basis.
3. The DPR shall contain detailed breakup of item wise specification/makers/item cost (rate and total amount)/installation cost/transportation cost/labour cost/supervision cost/contingency cost/labour cess/GST etc.
4. The DPR shall show the costing in respect of all electrical items including cabling, costing of associated civil work should be shown separately.
5. The participating Institutions/Consultant firms shall have documentary evidence of having prepared such types of DPR's, which have been successfully executed/implemented.

Applicant may visit the Institute to gather such other details as necessary for preparation of the DPR.

The applications may be sent in 2 envelopes as follows,

- 1.) Technical details- Bio-data and professional experience of the consultant giving details of qualification, experience, projects handled, details of client and such other relevant experience as considered necessary.
- 2.) Other envelope containing price-bid, terms and conditions.

Consultants well versed and having adequate credentials in design of 33 KV sub-station need only to apply.

N.B. Participants who desired to have additional information, may please contact Engg. deptt. of IASST (Cell no.9435042437, e-mail ID – registrar@iasst.gov.in)

Annexture-1

GENERIC STRUCTURE OF THE DPR

- i) **Context/ background:** This section should provide a brief description of the sector/sub-sector, the national priority, strategy and policy framework as well as a brief description of the existing situation.
- ii) **Problems to be addressed:** This section should elaborate the problems to be addressed through project/scheme at the local/regional/national level, as the case may be. Evidence regarding the nature and magnitude of the problems should be presented, supported by baseline data/surveys/reports. Clear evidence should be available regarding the nature and magnitude of the problems to be addressed.
- iii) **Projects objectives:** This section should indicate the development objectives proposed to be achieved, ranked in order of importance. The deliverables/ outputs for each development objective should be spelt out clearly. This section should also provide a general description of the project.

- iv) **Target beneficiaries:** There should be clear identification of target beneficiaries. Stakeholder analysis should be undertaken, including consultation with stakeholders at the time of project formulation. Options regarding cost sharing and beneficiary participation should be explored and incorporated in the project. Impact of the project on weaker sections of society, positive or negative, should be assessed and remedial steps suggested in case of adverse impact.
- v) **Project strategy:** The section should present an analysis of alternative strategies available to achieve the development objectives. Reasons for selecting the proposed strategy should be brought out. Involvement of NGOs should be considered. Basis for prioritization of locations should be indicated (where relevant). Options and opportunity for leveraging government funds through public-private partnership must be given priority and explored in depth.
- vi) **Legal framework:** This section should present the legal framework within which the project will be implemented and strengths and weakness of the legal framework in so far as it impacts on achievement of project objectives.
- vii) **Environmental impact assessment:** Environmental impact assessment should be undertaken, whenever required and measures identified to mitigate adverse impact, if any. Issues relating to land acquisition, diversion of forest land, rehabilitation and resettlement should be addressed in this situation.
- viii) **On-going initiatives:** This section should provide a description of ongoing initiatives and the manner in which duplication will be avoided and strategy created through the proposed project.
- ix) **Technology issues:** This section should elaborate on technology choices, if any, evaluation of options, as well as the basis for choice of technology for the proposed project.
- x) **Management arrangement:** Responsibilities of different agencies for project management and implementation should be elaborated. The organization structure at various levels as well as monitoring and coordination arrangement should be spelt out.
- xi) **Means of finance and project budget:** This section should focus on means of finance, evaluation of options, project budget, cost estimates based on CPWD norms and phasing of expenditure. Options for cost sharing and cost recovery (user charges) should be considered and built into the total project cost. Infrastructure projects may be assessed on the basis of the cost of debt finance and the tenor of debt. Options for raising funds through private sector participation should be considered and built into project cost.
- xii) **Time frame:** The section should indicate the proposed “zero” date for commencement and also provide a PERT/CPM chart, wherever relevant.
- xiii) **Risk analysis:** This section should focus on identification and assessment of project risks and how these are proposed to be mitigated. Risk analysis could include legal/contractual risks, environmental risks, revenue risks, project management risks, regulatory risks etc.
- xiv) **Evaluation:** This section should focus on lessons learnt from evaluation of similar projects implemented in the past. Evaluation arrangement for the project, whether concurrent, mid-term or post-project should be spelt out. It may be noted that continuation of projects/schemes from one plan period to another will not be permissible without an independent, in depth evaluation being undertaken.
- xv) **Success criteria:** Success criteria to assess whether the development objectives have been achieved should be spelt out in measurable terms. Base line data should be available against which success of the project will be assessed at the end of the project (impact

assessment). In this regard, it is essential that base line surveys be undertaken in case of large, beneficiary oriented projects.

Success criteria for each deliverable/output of the project should also be specified in measurable terms to assess achievement against proximate goals.

- xvi) **Financial and economic analysis:** Financial and economic analysis of the project may be undertaken where the financial returns are quantifiable. This analysis would generally be required for investment and infrastructure projects, but may not always be feasible for social projects where the benefits cannot be easily quantified.
- xvii) **Sustainability:** Issues relating to sustainability, including stakeholder commitment, operation and maintenance of assets after project completion, and other related issues should be addressed in this section.

Note: Requirement of the EFC/PIB format may also be kept in view while preparing the DPR



The application along with required attachments may be sent to the following address latest by 5:00 pm on 20/06/2019 by clearly mentioning “**Expression of interest for engaging a Consultant for preparation of DPR (Detailed project report) on up gradation of power supply at IASST.**” in sealed cover.

(The Advt. No-181(EOI for preparation of DPR) dtd 19/03/2019 is cancelled due to administrative reason.)

Registrar, IASST