Annexure-A: Criteria for Technical Assessment

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QUALIFICATION CRITERIA

The prospective supplier meeting the below mentioned technical criteria shall be considered for further development of vendor for thermal insulation work for Steam turbine for supercritical sets as per the BHEL specification.

Technical Criteria: -

1. Experience Required:

a) The prospective party must have designed, supplied material, and applied thermal insulation on Steam turbine at site of 660 MW or above rating (For components as mentioned in scope of work) of supercritical set (with main steam and reheat temperature of 565 deg C and above i.e. for HPT and IPT).
b) In support of above 1 (a), Vendor to furnish the unpriced copies of Purchase Orders executed against three different projects which has been completed within 150 days at site.
c) Application of thermal insulation as per above (a) and (b) must include and satisfy the following: -
    i. HP Turbine Insulation (With temperature parameters 565 deg. C and above): Spray Insulation (Rockwool based) with water as binder followed by cementing and painting.
    ii. IP turbine: Upper Half Mat Insulation (Rockwool), Lower half Spray Insulation (Rockwool based with water as Binder) valves and Cassette Insulation (with mats) in the joint plane of Lower and Upper half of IP Turbine and sheet metal cleading on top half of IP Turbine.
    iii. HP and IP Valves (With temperature parameters 565 deg. C and above): Spray Insulation (Rockwool based) with water as binder followed by cementing and painting.
    iv. Cross Over Pipe and LP Bypass Valve: Mat insulation (CMS/Rockwool) with sheet metal cleading.
    v. Turbine ends: With microporous insulation.

2. Design Capability, Manufacturing, Machinery and sheet Metal Facilities:
    a) Party to furnish complete details of in-house Pad Insulation facility, in-house sheet metal manufacturing facility, and Equipment for Spray Insulation.
    b) Party to furnish complete manufacturing plan for Pad Insulation and sheet Metal activity along with drawings/Models/photographs.
    c) Vendor should be proficient in 3D modelling software for performing mock assembly of insulation pads and cladding (sheet metal) on turbine casing. Vendor to furnish details of 3D modelling software being used by them.

SCOPE OF WORK [After development of qualified vendor as per the EOI]

Design, Material supply, application of thermal insulation of Steam turbine at site and performance testing at site for Steam turbine rating 660 MW or above having supercritical parameters.

Following components needs to be insulated as per the BHEL specification

i. HP Turbine.
ii. IP Turbine.
iii. Cross over pipe.
iv. HP valve.
v. IP valve.

vi. Overload valve.
vii. LP bypass valve.
viii. LP shaft seal casing.

PERFORMANCE TESTING AT SITE:

i. Cold face temperature should not be more than 60 deg C.
ii. HP and IP turbine casing top bottom temperature should not be more than 15 deg. C.