

## SCOPE OF WORK

Name of Work: - Fire fighting pump house & hydrant system refurbishment work under Add Cap 2024-29 at Satna SS.

Name of Substation: - 765/400 KV Sub Station- Satna.

1. The scope of work under this head shall include supply and installation of Fire Fighting System as per BOQ and POWERGRID TS. Bidder may conduct site survey at their own expense, if required.
2. The work under this system shall consist of supply, installation, testing, training & handing over all materials, equipment and appliances necessary for commissioning the said system.
3. It shall also include laying of piping, necessary for installation of the system as indicated in BOQ. Any openings/chasing in the wall required to be made for the installation shall be made/repaired good in appropriate manner and shall be in contractor's scope, without any additional payment from POWERGRID.
4. The scope of work includes material selection, assembly, shop testing, inspection at manufacturers' works, shipment, site storage, installation, testing, calibration and commissioning of the Fire Fighting system.
5. All the supply items shall be of POWERGRID approved make only. However, the vendors approved by QA&I department of POWERGRID for supply items are also acceptable.
6. The scope also includes dismantling of following existing equipment:
  - i. Diesel Engine with Pump along with panel, charger and batteries.
  - ii. Pressure Switches & Gauges
  - iii. Strainers
  - iv. NRVs
  - v. AC & DC Distribution Boards
  - vi. Annunciation Panels
  - vii. Gate Valves
  - viii. Level Switches & Gauges
  - ix. Hydro Pneumatic Tank
  - x. Hydrant Pipelines
  - xi. Deluge Valves
  - xii. Other, as required
7. Installation arrangements, Tools and Tackles like Ladder etc., Mounting brackets, Enclosures, Hardware/ fittings, cable glands, lugs, gland /adapters, civil work etc. and other accessories as

required for commissioning of the Fire Fighting system are to be provided by the bidder. No additional charges shall be paid by POWERGRID.

8. Testing kits and other materials/equipment required for the commissioning and performance testing of the entire system during appropriate time are to be provided by the bidder.
9. Appropriate Test certificates for all supplied materials have to be submitted by the bidder.
10. Preparation and submission of drawings/documents of the refurbished system are to be provided by the bidder.
11. The bidder has to submit the entire Product Operation & Maintenance Manual along with any other necessary documentation related to the system.
12. Shipment & unloading charges at site for all materials are to be borne by the bidder.
13. All the Civil foundations for the Diesel engine, Diesel storage tank, Pipelines of all sizes, Air vessel and all other civil works required for the successful commissioning of the System shall be as per the technical specification and is under the scope of the contractor.
14. When in the opinion of POWERGRID, the Fire Fighting System is practically commissioned & handed over successfully, they shall forthwith issue a certificate to that effect and the defect liability period shall commence from the date of such certificate.
15. POWERGRID reserves the right to inspect the goods during manufacture. All the goods will be checked on receipt at site. Any goods rejected by us for not meeting the specifications specified or for not being in accordance with sample (if any) shall be removed by the bidder at their own expense. The inspection does not relieve the bidder of their responsibilities for any defects in material, design and/ or workmanship. The bidder should submit all manufacturers test certificates.
16. The scope of work also includes dismantling of the existing Piping , associated civil works and all other components of the existing system along with taking up of any additional civil, electrical and any other associated jobs (if any) in total needed for successful commissioning of the Fire Fighting System.
17. The bidder shall carry out all the erection and dismantling activities required for successful commissioning of the Fire Fighting System without causing any hindrance to other agencies & Officers'/Staff working in the site premises.
18. Civil & other additional works (if any) required for successful commissioning of Fire Fighting System will be carried out by the bidder and the bidder shall make good, any damages caused to the structure at his own cost. The power supply (if any) needed for carrying out such works shall be arranged by POWERGRID at zero cost to the bidder.
19. The equipment supplied with all component elements, its erection, testing and commissioning should comply with all applicable Bureau of Indian Standard Specifications or approved equivalent and POWERGRID TS, amended up to date.

20. All the relevant drawings as well as approved drawings pertaining to the newly proposed system shall be submitted to POWERGRID in both soft and hard copy (Minimum 4 sets) formats.
21. The supply portion is inclusive of the item GI Flat (Both 75X12mm & 50X6mm) as per the IS-1852 for weight & IS-2062 for quality. The same is to be used for earthing both the ends of the all the Gate/ Sluice valves, NRV's and in all the gasketed bolted joints inside the pump house. In addition, an earthing ring/Mat shall be formed by running the GI flats of mentioned size inside the pump house and shall be connected to the station earth mat.
22. The erection work needs to be completed in minimum possible time to ensure minimum outage time of the system as per the directions of the Engineer-In – Charge.
23. The contractor shall arrange proper Insurance coverage for their workmen under workmen's Compensation act 1948 before the commencement of work for this package and the same is to be submitted to POWERGRID without which work cannot be taken up.
24. The dismantling of the existing system and the casting of new foundation inside the pump house shall be carried out without much affecting the existing flooring of the pump house. Damages made any to the existing floor to be rectified by the contractor without any additional cost implication to POWERGRID.
25. The Scope of supply and services is as indicated above and without excluding any other necessary components or services not mentioned but necessary to complete the work in all respects stipulated, regardless of any omission in this specification, shall be in bidder's scope.