

Tender Title: OPERATION AND MAINTENANCE OF ELECTRICAL AND MECHANICAL INSTALLATIONS IN TERMINAL B  
Tender ID: 2020\_AAI\_40715\_1

Tender Inviting Authority: Jt. GENERAL MANAGER (ENGG-ELECT), AIRPORTS AUTHORITY OF INDIA, VIS

Name of Work: ARMO of Electrical and mechanical installations 2020-22 at Visakhapatnam Airport - SH : Operation and maintenance of Electrical an

Contract No: 2020 \_AAI\_40715

SCHEDULE OF WORK / ITEM(S)

| SI.No | Description of Work / Item(s)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | No.of Qty | Units  | Estimated Rate | CHENNAI ENGINEERING SERVICES |            | ABHISHEK ASSOCIATES |             | DElite System Engineering (India) Pvt. Ltd |            | JATINDER CONSTRUCTION COMPANY PRIVATE |             |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------|----------------|------------------------------|------------|---------------------|-------------|--------------------------------------------|------------|---------------------------------------|-------------|
|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |           |        |                | Rate                         | Amount     | Rate                | Amount      | Rate                                       | Amount     | Rate                                  | Amount      |
| 1.00  | Operation and Maintenance of E & M Installations of New power house & Old power house, Internal & External electrification around the new power house and old power house, water supply system by carrying out preventive maintenance, attending to the complaints by providing qualified manpower, tools, cleaning materials etc., round the clock including sundays and holidays in three shifts as per enclosed Special conditions of contract and particular specifications and as per the instructions of the Engineer-in-Charge or his authorized representative from time to time complete as required. | 24.00     | Months |                | 208769.00                    | 5010456.00 | 439484.00           | 10547616.00 | 216249.00                                  | 5189976.00 | 450000.00                             | 10800000.00 |
| 2.00  | Testing of transformer oil sample with HT B.D.V kit including conducting acidity test and producing test certificate etc., as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | 24.00     | Job    |                | 1999.00                      | 47976.00   | 1500.00             | 36000.00    | 7500.00                                    | 180000.00  | 200.00                                | 4800.00     |
| 3.00  | Filtration / Dehydration of transformer oil till attaining the required BDV i/c to and fro transportation of filtration machine to site, submission of test reports etc., as and when required.                                                                                                                                                                                                                                                                                                                                                                                                                | 9120.00   | Ltr    |                | 3.99                         | 36388.80   | 15.00               | 136800.00   | 15.00                                      | 136800.00  | 5.00                                  | 45600.00    |
| 4.00  | Supply of Silica gel crystals for transformer breathers etc as and when required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 40.00     | Kg     |                | 399.00                       | 15960.00   | 550.00              | 22000.00    | 500.00                                     | 20000.00   | 200.00                                | 8000.00     |
| 5.00  | Supply of transformer oil with test report for topping up the transformer i/c transportation as on when required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 600.00    | Ltr    |                | 199.00                       | 119400.00  | 100.00              | 60000.00    | 500.00                                     | 300000.00  | 120.00                                | 72000.00    |
| 6.00  | Testing, Servicing and calibration of the following relays including and checking and rectifying the tripping circuit for HT 33KV VCB incoming / outgoing panels etc., complete as required.<br>(a) Over current relay cum earth fault relay.                                                                                                                                                                                                                                                                                                                                                                  | 10.00     | set    |                | 1499.00                      | 14990.00   | 2500.00             | 25000.00    | 1200.00                                    | 12000.00   | 2000.00                               | 20000.00    |
| 7.00  | Testing, Servicing and calibration of the following relays including and checking and rectifying the tripping circuit for HT 33KV VCB incoming / outgoing panels etc., complete as required.<br>(b) 33 KV HT VCB panel master trip relay testing & calibration.                                                                                                                                                                                                                                                                                                                                                | 10.00     | each   |                | 1499.00                      | 14990.00   | 2500.00             | 25000.00    | 1100.00                                    | 11000.00   | 3000.00                               | 30000.00    |

|       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |       |      |
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| 8.00  | Testing, Servicing and calibration of the following relays including and checking and rectifying the tripping circuit for HT 33KV VCB incoming / outgoing panels etc., complete as required.<br>(c) 33 KV HT VCB panel master trip relay testing & calibration.                                                                                                                                                                                                                                                                                                                                                                                    | 10.00 | each |
| 9.00  | Testing, Servicing and calibration of the following relays including and checking and rectifying the tripping circuit for HT 33KV VCB incoming / outgoing panels etc., complete as required.<br>(d) 33 KV HT VCB panel timer relay testing & calibration for Incomer Panel                                                                                                                                                                                                                                                                                                                                                                         | 2.00  | each |
| 10.00 | Testing, Servicing and calibration of the following relays including and checking and rectifying the tripping circuit for HT 33KV VCB incoming / outgoing panels etc., complete as required.<br>(e) 33 KV HT VCB panel under voltage relay testing & calibration for Incomer Panel.                                                                                                                                                                                                                                                                                                                                                                | 2.00  | each |
| 11.00 | Testing, Servicing and calibration of the following relays including and checking and rectifying the tripping circuit for HT 33KV VCB incoming / outgoing panels etc., complete as required.<br>(f) 33 KV HT VCB panel Auxiliary relay for Trip & Alarm testing & calibration for Transformers (2 relays per Transformer VCB)                                                                                                                                                                                                                                                                                                                      | 12.00 | each |
| 12.00 | Half-yearly maintenance and Servicing of 33KV, 1250A VCB including complete servicing and cleaning of breaker mechanism parts, checking all electrical and mechanical components, checking and servicing of draw-out mechanism including relay testing etc, complete as required and six months service warranty, breakdown calls should be attend within 24 hours. (Maintenance shall be carried out through OEM / authorized dealer).<br>(a) 33KV / 1250A Incomer - 1 No.<br>(b) 33KV / 1250A Out-going - 3 Nos.                                                                                                                                 | 16.00 | job  |
| 13.00 | Half-yearly Maintenance and Servicing of 415V, 4 Pole ACB of following rating including complete servicing and cleaning of breaker mechanism parts, checking all electrical and mechanical components ,checking and servicing of draw-out mechanism including removal of worn-out electrical and mechanical parts, replacement works,relay testing etc, complete as required and six months service warranty and break down calls should be attended within 24 hours. (Maintenance shall be carried out through OEM / authorized dealer). spares will be provided by AAI.<br>(a) 2500A / 4Pole ACB for Transformers out going & Bus Couplers-5 Nos | 20.00 | Job  |

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|---------|----------|----------|-----------|---------|-----------|---------|----------|
| 299.00  | 2990.00  | 2500.00  | 25000.00  | 1200.00 | 12000.00  | 2000.00 | 20000.00 |
| 3999.00 | 7998.00  | 2500.00  | 5000.00   | 1200.00 | 2400.00   | 2000.00 | 4000.00  |
| 2999.00 | 5998.00  | 2500.00  | 5000.00   | 1200.00 | 2400.00   | 2000.00 | 4000.00  |
| 1499.00 | 17988.00 | 5000.00  | 60000.00  | 1500.00 | 18000.00  | 2000.00 | 24000.00 |
| 5499.00 | 87984.00 | 12000.00 | 192000.00 | 7500.00 | 120000.00 | 5000.00 | 80000.00 |
| 2499.00 | 49980.00 | 7500.00  | 150000.00 | 4000.00 | 80000.00  | 3000.00 | 60000.00 |

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| 14.00 | Half-yearly Maintenance and Servicing of 415V, 4 Pole ACB of following rating including complete servicing and cleaning of breaker mechanism parts, checking all electrical and mechanical components ,checking and servicing of draw-out mechanism including removal of worn-out electrical and mechanical parts, replacement works,relay testing etc, complete as required and six months service warranty and break down calls should be attended within 24 hours.<br>(Maintenance shall be carried out through OEM / authorized dealer). spares will be provided by AAI.<br>(b) 1250A / 4Pole ACB Out-going - 17 Nos. | 68.00 | Job |
| 15.00 | Half-yearly Maintenance and Servicing of 415V, 4 Pole ACB of following rating including complete servicing and cleaning of breaker mechanism parts, checking all electrical and mechanical components ,checking and servicing of draw-out mechanism including removal of worn-out electrical and mechanical parts, replacement works,relay testing etc, complete as required and six months service warranty and break down calls should be attended within 24 hours.<br>(Maintenance shall be carried out through OEM / authorized dealer). spares will be provided by AAI.<br>(C) 1000A / 4Pole ACB Out-going - 02 Nos  | 8.00  | Job |
| 16.00 | Half-yearly Maintenance and Servicing of 415V, 4 Pole ACB of following rating including complete servicing and cleaning of breaker mechanism parts, checking all electrical and mechanical components ,checking and servicing of draw-out mechanism including removal of worn-out electrical and mechanical parts, replacement works,relay testing etc, complete as required and six months service warranty and break down calls should be attended within 24 hours.<br>(Maintenance shall be carried out through OEM / authorized dealer). spares will be provided by AAI.<br>(d) 800A / 4Pole ACB Out-going - 7 Nos.   | 28.00 | Job |
| 17.00 | Testing, Servicing and calibration of following safety relays for 33 KV / 433 V Transformers including submitting of test reports etc. complete as required.<br>(a) Buchholz's relay                                                                                                                                                                                                                                                                                                                                                                                                                                      | 6.00  | Job |
| 18.00 | Testing, Servicing and calibration of following safety relays for 33 KV / 433 V Transformers including submitting of test reports etc. complete as required.<br>(b) OTI relay                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6.00  | Job |
| 19.00 | Testing, Servicing and calibration of following safety relays for 33 KV / 433 V Transformers including submitting of test reports etc. complete as required.<br>(c) WTI relay                                                                                                                                                                                                                                                                                                                                                                                                                                             | 6.00  | Job |

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| 2499.00 | 169932.00 | 7500.00 | 510000.00 | 4000.00 | 272000.00 | 2000.00 | 136000.00 |
| 2499.00 | 19992.00  | 7500.00 | 60000.00  | 4000.00 | 32000.00  | 2000.00 | 16000.00  |
| 2499.00 | 69972.00  | 7500.00 | 210000.00 | 4000.00 | 112000.00 | 2000.00 | 56000.00  |
| 1999.00 | 11994.00  | 2500.00 | 15000.00  | 1200.00 | 7200.00   | 5000.00 | 30000.00  |
| 1999.00 | 11994.00  | 2500.00 | 15000.00  | 1200.00 | 7200.00   | 2000.00 | 12000.00  |
| 1999.00 | 11994.00  | 2500.00 | 15000.00  | 1200.00 | 7200.00   | 2000.00 | 12000.00  |

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| 20.00 | Transportation of HSD oil from Petrol bunk to Airport power house. Approx. quantity of oil to be transported upto 1000 ltrs. Approx. distance from petrol bunk is 4 Km. Excluding loading and unloading.                                                                                                     | 100.00 | Job  |
| 21.00 | Painting of LT panels / feeder pillars with one coat metal primer on rusted surface and two coats approved synthetic enamel paint , lettering etc., as required upto the satisfaction of the Engineer-in-charge as and when required.                                                                        | 300.00 | sqm  |
| 22.00 | Painting of street light poles with one coat of metal primer on rusted surface and two coats of approved aluminum paint i/c dismantling, re-fixing of fittings and scraping the surface as required to the satisfaction of the Engineer-in-charge as and when required.<br>pole height 11mtrs approximately. | 200.00 | each |
| 23.00 | Supply of 3-phase Panel Digital Voltmeter of range 0 to 500V AC,AUX supply 240 VAC suitable for operation on three phase , 440 V , 50 HZ AC supply [Schneider Model No Konzerv DM 3210 or equivalent)                                                                                                        | 10.00  | No   |
| 24.00 | Supply of 3-phase Panel Digital Ammeter of range 0 -100-1600A AC,AUX supply 240 VAC suitable for operation on three phase , 440 V , 50 HZ AC supply (Schneider Model No Konzerv DM 3110 or equivalent).                                                                                                      | 10.00  | No   |
| 25.00 | Supply of 3-phase Intelligent panel digital Multi Function meter suitable for operation on three phase , 440 V , 50 HZ AC supply<br>( Make : L & T or equivalent )                                                                                                                                           | 10.00  | No   |
| 26.00 | Supply of 1-phase LED Indication lamps suitable for operation on Single phase, 240 V, 50 Hz, AC supply (Make : ESBEE, Model: E-Series or equivalent)<br>(a) Red                                                                                                                                              | 30.00  | No   |
| 27.00 | Supply of 1-phase LED Indication lamps suitable for operation on Single phase, 240 V, 50 Hz, AC supply (Make : ESBEE, Model: E-Series or equivalent)<br>(b)Yellow                                                                                                                                            | 30.00  | No   |
| 28.00 | Supply of 1-phase LED Indication lamps suitable for operation on Single phase, 240 V, 50 Hz, AC supply( Make : ESBEE, Model: E-Series or equivalent)<br>(c) Blue                                                                                                                                             | 30.00  | No   |
| 29.00 | Supply of 1-phase LED Indication lamps suitable for operation on Single phase, 240 V, 50 Hz, AC supply( Make : ESBEE, Model: E-Series or equivalent)<br>(d) Green                                                                                                                                            | 30.00  | No   |
| 30.00 | Pollution test /Stack monitoring and Noise level monitoring of 750KVA DG-Sets with suitable kit including Conducting SPM(Suspended particles matter), SO2 (Sulphur dioxide), NOx (Oxides of Nitrogen) tests and submission of test reports etc. as and when required.                                        | 6.00   | Job  |

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|----------|-----------|----------|-----------|----------|-----------|---------|----------|
| 2499.00  | 249900.00 | 2500.00  | 250000.00 | 3500.00  | 350000.00 | 500.00  | 50000.00 |
| 299.00   | 89700.00  | 120.00   | 36000.00  | 350.00   | 105000.00 | 100.00  | 30000.00 |
| 299.00   | 59800.00  | 550.00   | 110000.00 | 400.00   | 80000.00  | 50.00   | 10000.00 |
| 2999.00  | 29990.00  | 1700.00  | 17000.00  | 2000.00  | 20000.00  | 1000.00 | 10000.00 |
| 2999.00  | 29990.00  | 1700.00  | 17000.00  | 2000.00  | 20000.00  | 1000.00 | 10000.00 |
| 19999.00 | 199990.00 | 8000.00  | 80000.00  | 15000.00 | 150000.00 | 1000.00 | 10000.00 |
| 149.00   | 4470.00   | 90.00    | 2700.00   | 200.00   | 6000.00   | 100.00  | 3000.00  |
| 149.00   | 4470.00   | 90.00    | 2700.00   | 200.00   | 6000.00   | 100.00  | 3000.00  |
| 299.00   | 8970.00   | 150.00   | 4500.00   | 200.00   | 6000.00   | 100.00  | 3000.00  |
| 149.00   | 4470.00   | 90.00    | 2700.00   | 200.00   | 6000.00   | 100.00  | 3000.00  |
| 5499.00  | 32994.00  | 15000.00 | 90000.00  | 25000.00 | 150000.00 | 5000.00 | 30000.00 |

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| 31.00 | Operation and Maintenance of Internal and External Electrical & Mechancial installations in Integrated Terminal Building, Cargo Building, Technical Block, Car parking, Garden areas, Internal Roads, CISF barracks (Viman Nagar), NAVAIDS (TDVOR, Glide Path and Localiser), Administrative offices, Engg. offices, taxi way edge lighting system including CCR at Old apron and new apron by carrying out Preventive maintenance Checks, attending complaints, maintaining all records by deploying qualified manpower, tools, cleaning materials etc., in three shifts per day including Sundays and Holidays as per the enclosed special conditions of contract, Particular specifications and as per the instructions of the Engineer-in-Charge or his authorized representative from time to time complete as required. | 24.00  | Months |
| 32.00 | Operation and Maintenance of Internal and External Electrical & Mechancial installations in forth coming Linear Expansion of Integrated Terminal Building taxi way edge lighting system including CCR at Old apron and new apron by carrying out Preventive maintenance Checks, attending complaints, maintaining all records by deploying qualified manpower, tools, cleaning materials etc., in general shift per day including Sundays and Holidays as per the enclosed special conditions of contract, Particular specifications and as per the instructions of the Engineer-in-Charge or his authorized representative from time to time complete as required.                                                                                                                                                           | 6.00   | Months |
| 33.00 | Supply, cutting, pasting and fixing of sign board sticker as and when required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 100.00 | sft    |
| 34.00 | Rewinding & servicing of ceiling fan motors with complete overhauling and replacement of worn out bearings and transportation to the AAI site, etc as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 100.00 | No     |
| 35.00 | Supply of 5 star rated, energy saving ceiling fan suitable to operate on 240V, 50Hz AC supply complete as required.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | 60.00  | No     |
| 36.00 | Re-winding of following rating sub-mersible pump motors including dismantling, cutting of burnt out wire, re-assembling, testing of motor, transportation of the submersible pump motor set to the site etc as and when required.<br>(a) 3.0 HP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 8.00   | Job    |
| 37.00 | Re-winding of following rating sub-mersible pump motors including dismantling, cutting of burnt out wire, re-assembling, testing of motor, transportation of the submersible pump motor set to the site etc as and when required.<br>(b) 5.0 HP                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | 8.00   | Job    |

|           |            |           |            |           |             |           |            |
|-----------|------------|-----------|------------|-----------|-------------|-----------|------------|
| 415479.00 | 9971496.00 | 225197.00 | 5404728.00 | 424805.00 | 10195320.00 | 285000.00 | 6840000.00 |
| 84129.00  | 504774.00  | 72676.00  | 436056.00  | 71481.00  | 428886.00   | 65000.00  | 390000.00  |
| 29.00     | 2900.00    | 1200.00   | 120000.00  | 400.00    | 40000.00    | 2000.00   | 200000.00  |
| 499.00    | 49900.00   | 450.00    | 45000.00   | 500.00    | 50000.00    | 100.00    | 10000.00   |
| 1999.00   | 119940.00  | 2100.00   | 126000.00  | 2200.00   | 132000.00   | 2000.00   | 120000.00  |
| 4999.00   | 39992.00   | 2500.00   | 20000.00   | 12500.00  | 100000.00   | 1000.00   | 8000.00    |
| 7999.00   | 63992.00   | 4500.00   | 36000.00   | 15000.00  | 120000.00   | 2000.00   | 16000.00   |

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| 38.00 | Repairing / servicing of following rating sub-mersible pumps i/c replacement of all worn out GM bushes, thrust bearings, impellers, studs sets and necessary spares and lathe work, transportation charges complete in all respect etc., as on when required.<br>(a) 3.0 HP                                                       | 8.00   | Job  |
| 39.00 | Repairing / servicing of following rating sub-mersible pumps i/c replacement of all worn out GM bushes, thrust bearings, impellers, studs sets and necessary spares and lathe work, transportation charges complete in all respect etc., as on when required.<br>(b) 5.0HP                                                        | 8.00   | Job  |
| 40.00 | Lifting of following submersible pumps upto 200 feet from the existing bore well / open well along with GI / MS pipe lines, cable and reinstallation of the same after repair / rectification of the defects as and when required.<br>(Charges for repair / rectification of the pump or motor is not included).<br>5.0 HP/7.5 HP | 8.00   | Job  |
| 41.00 | Re-winding of following rating 3.0 Phase induction motors including dismantling, cutting of burnt out wire, re-assembling, testing of motor, transportation of the Induction motor set to the site etc as and when required.                                                                                                      | 10.00  | Job  |
| 42.00 | Supply of TCCA-90 Chlorine for day to day maintenance of Garden fountain.                                                                                                                                                                                                                                                         | 200.00 | Kg   |
| 43.00 | Supply of filter media sand for day to day maintenance of fountain.                                                                                                                                                                                                                                                               | 120.00 | Kg   |
| 44.00 | Supply of fountain design underwater lights made of ABS body with 90 LED with provision of Geyser foam type jet nozzle with bush, complete as required.                                                                                                                                                                           | 42.00  | No   |
| 45.00 | Supply of Cascaded submersible nozzle and Geaser jet fountain nozzle., complete as required.                                                                                                                                                                                                                                      | 32.00  | No   |
| 46.00 | Supply of Cascaded submersible nozzle foam type jet fountain nozzle., complete as required.                                                                                                                                                                                                                                       | 10.00  | No   |
| 47.00 | Supply of 1" brass Ball Valve (including 1" nipple and union) for controlling the pressure of fountain nozzles., as per site requirement, complete as required.                                                                                                                                                                   | 42.00  | No   |
| 48.00 | Supply of maintenance kit with 9 mtr Hose pipe, algae brush, Vacuum head, telescopic rod and leaf net complete as required.                                                                                                                                                                                                       | 5.00   | mtrs |

|         |           |         |           |          |           |         |           |
|---------|-----------|---------|-----------|----------|-----------|---------|-----------|
| 6999.00 | 55992.00  | 2500.00 | 20000.00  | 17000.00 | 136000.00 | 3000.00 | 24000.00  |
| 9999.00 | 79992.00  | 4500.00 | 36000.00  | 19000.00 | 152000.00 | 3000.00 | 24000.00  |
| 9999.00 | 79992.00  | 5000.00 | 40000.00  | 3000.00  | 24000.00  | 5000.00 | 40000.00  |
| 4999.00 | 49990.00  | 2000.00 | 20000.00  | 15000.00 | 150000.00 | 1000.00 | 10000.00  |
| 49.00   | 9800.00   | 40.00   | 8000.00   | 150.00   | 30000.00  | 100.00  | 20000.00  |
| 49.00   | 5880.00   | 150.00  | 18000.00  | 500.00   | 60000.00  | 100.00  | 12000.00  |
| 2999.00 | 125958.00 | 6500.00 | 273000.00 | 3500.00  | 147000.00 | 5000.00 | 210000.00 |
| 2999.00 | 95968.00  | 2000.00 | 64000.00  | 1500.00  | 48000.00  | 1000.00 | 32000.00  |
| 3299.00 | 32990.00  | 1800.00 | 18000.00  | 2200.00  | 22000.00  | 1000.00 | 10000.00  |
| 899.00  | 37758.00  | 1200.00 | 50400.00  | 2000.00  | 84000.00  | 500.00  | 21000.00  |
| 799.00  | 3995.00   | 2000.00 | 10000.00  | 1200.00  | 6000.00   | 5000.00 | 25000.00  |

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| 49.00 | DSR 2018 item for Rs. 5,00,000/- per year.<br>[Note : The rate may be quoted in the following manner -<br>(i) If quoted rate is Rs. 4,46,450/- (Against Rs. 5,00,000/-) then the percentage will considered as 0% above / below DSR 2018.<br>(ii) If quoted rate is Rs. 4,01,805/- (Against Rs. 5,00,000/-) then the percentage will considered as 10% below DSR 2018.<br>(iii) If quoted rate is Rs. 4,91,095/- (Against Rs. 5,00,000/-) then the percentage will considered as 10% above DSR 2018.<br><br>(a) 1st Year | 1.00 | LS |
| 50.00 | DSR 2018 item for Rs. 5,00,000/- per year.<br>[Note : The rate may be quoted in the following manner -<br>(i) If quoted rate is Rs. 4,46,450/- (Against Rs. 5,00,000/-) then the percentage will considered as 0% above / below DSR 2018.<br>(ii) If quoted rate is Rs. 4,01,805/- (Against Rs. 5,00,000/-) then the percentage will considered as 10% below DSR 2018.<br>(iii) If quoted rate is Rs. 4,91,095/- (Against Rs. 5,00,000/-) then the percentage will considered as 10% above DSR 2018.<br><br>(b) 2nd Year | 1.00 | LS |

|           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 450000.00 | 450000.00 | 425000.00 | 425000.00 | 550000.00 | 550000.00 | 400000.00 | 400000.00 |
| 450000.00 | 450000.00 | 425000.00 | 425000.00 | 550000.00 | 550000.00 | 400000.00 | 400000.00 |

Total in Figures

18675029.80

20322200.00

20446382.00

20408400.00

Lowest Amount Quoted BY: SHRADDHA ENGINEERING AND FACILITY SERVICES(17663026.00)

BUILDING, OPERATIONAL AREA AND 33KV SUBSTATION

AKHAPATNAM AIRPORT, VISAKHAPATNAM.

and mechanical installations in Terminal Building, Operational area and 33KV Substation.

| S. N ELECTRICALS |            | PAN POLAR ENGINEERS<br>PVT. LTD. |            | JAI ENTERPRISES |            | SHRADDHA<br>ENGINEERING AND<br>FACILITY SERVICES |            | VOLTAS LIMITED |            | sterling and wilson private<br>limited |            |
|------------------|------------|----------------------------------|------------|-----------------|------------|--------------------------------------------------|------------|----------------|------------|----------------------------------------|------------|
| Rate             | Amount     | Rate                             | Amount     | Rate            | Amount     | Rate                                             | Amount     | Rate           | Amount     | Rate                                   | Amount     |
| 230000.00        | 5520000.00 | 200000.00                        | 4800000.00 | 255253.00       | 6126072.00 | 210304.00                                        | 5047296.00 | 261083.00      | 6265992.00 | 234193.00                              | 5620632.00 |
| 1750.00          | 42000.00   | 2000.00                          | 48000.00   | 3500.00         | 84000.00   | 700.00                                           | 16800.00   | 3765.00        | 90360.00   | 1469.00                                | 35256.00   |
| 5.75             | 52440.00   | 12.00                            | 109440.00  | 4.50            | 41040.00   | 15.00                                            | 136800.00  | 8.00           | 72960.00   | 5.00                                   | 45600.00   |
| 180.00           | 7200.00    | 450.00                           | 18000.00   | 225.00          | 9000.00    | 250.00                                           | 10000.00   | 518.00         | 20720.00   | 328.00                                 | 13120.00   |
| 110.00           | 66000.00   | 230.00                           | 138000.00  | 125.00          | 75000.00   | 96.00                                            | 57600.00   | 123.00         | 73800.00   | 147.00                                 | 88200.00   |
| 3500.00          | 35000.00   | 800.00                           | 8000.00    | 3500.00         | 35000.00   | 2500.00                                          | 25000.00   | 3765.00        | 37650.00   | 3164.00                                | 31640.00   |
| 2000.00          | 20000.00   | 2000.00                          | 20000.00   | 1300.00         | 13000.00   | 850.00                                           | 8500.00    | 1035.00        | 10350.00   | 1695.00                                | 16950.00   |

|         |           |         |          |         |          |         |          |         |           |         |           |
|---------|-----------|---------|----------|---------|----------|---------|----------|---------|-----------|---------|-----------|
| 2000.00 | 20000.00  | 2000.00 | 20000.00 | 1500.00 | 15000.00 | 850.00  | 8500.00  | 1035.00 | 10350.00  | 2119.00 | 21190.00  |
| 2500.00 | 5000.00   | 5000.00 | 10000.00 | 1200.00 | 2400.00  | 2850.00 | 5700.00  | 1035.00 | 2070.00   | 1695.00 | 3390.00   |
| 2500.00 | 5000.00   | 5000.00 | 10000.00 | 1200.00 | 2400.00  | 2850.00 | 5700.00  | 1294.00 | 2588.00   | 1695.00 | 3390.00   |
| 2000.00 | 24000.00  | 4000.00 | 48000.00 | 1900.00 | 22800.00 | 950.00  | 11400.00 | 1035.00 | 12420.00  | 2543.00 | 30516.00  |
| 5000.00 | 80000.00  | 3000.00 | 48000.00 | 5500.00 | 88000.00 | 4500.00 | 72000.00 | 7412.00 | 118592.00 | 6780.00 | 108480.00 |
| 7500.00 | 150000.00 | 4000.00 | 80000.00 | 2700.00 | 54000.00 | 4500.00 | 90000.00 | 3765.00 | 75300.00  | 3955.00 | 79100.00  |

|          |           |          |           |         |           |         |           |         |           |         |           |
|----------|-----------|----------|-----------|---------|-----------|---------|-----------|---------|-----------|---------|-----------|
| 11500.00 | 782000.00 | 4000.00  | 272000.00 | 2500.00 | 170000.00 | 2800.00 | 190400.00 | 3529.00 | 239972.00 | 2825.00 | 192100.00 |
| 3000.00  | 24000.00  | 9000.00  | 72000.00  | 3000.00 | 24000.00  | 2500.00 | 20000.00  | 3529.00 | 28232.00  | 3955.00 | 31640.00  |
| 7500.00  | 210000.00 | 10000.00 | 280000.00 | 3000.00 | 84000.00  | 2250.00 | 63000.00  | 3529.00 | 98812.00  | 3955.00 | 110740.00 |
| 1500.00  | 9000.00   | 3000.00  | 18000.00  | 2500.00 | 15000.00  | 3000.00 | 18000.00  | 2588.00 | 15528.00  | 2825.00 | 16950.00  |
| 1500.00  | 9000.00   | 3000.00  | 18000.00  | 2500.00 | 15000.00  | 4000.00 | 24000.00  | 2329.00 | 13974.00  | 2825.00 | 16950.00  |
| 1500.00  | 9000.00   | 4000.00  | 24000.00  | 3000.00 | 18000.00  | 4000.00 | 24000.00  | 2329.00 | 13974.00  | 2599.00 | 15594.00  |

|         |           |         |           |         |           |          |           |         |           |         |           |
|---------|-----------|---------|-----------|---------|-----------|----------|-----------|---------|-----------|---------|-----------|
| 1500.00 | 150000.00 | 1200.00 | 120000.00 | 1800.00 | 180000.00 | 1500.00  | 150000.00 | 1412.00 | 141200.00 | 1130.00 | 113000.00 |
| 225.00  | 67500.00  | 130.00  | 39000.00  | 255.00  | 76500.00  | 225.00   | 67500.00  | 471.00  | 141300.00 | 339.00  | 101700.00 |
| 325.00  | 65000.00  | 2000.00 | 400000.00 | 275.00  | 55000.00  | 400.00   | 80000.00  | 2471.00 | 494200.00 | 678.00  | 135600.00 |
| 950.00  | 9500.00   | 2585.00 | 25850.00  | 3500.00 | 35000.00  | 1650.00  | 16500.00  | 1176.00 | 11760.00  | 2260.00 | 22600.00  |
| 1350.00 | 13500.00  | 2505.00 | 25050.00  | 3500.00 | 35000.00  | 2200.00  | 22000.00  | 1176.00 | 11760.00  | 2260.00 | 22600.00  |
| 3500.00 | 35000.00  | 3000.00 | 30000.00  | 3500.00 | 35000.00  | 7000.00  | 70000.00  | 3529.00 | 35290.00  | 6215.00 | 62150.00  |
| 75.00   | 2250.00   | 250.00  | 7500.00   | 150.00  | 4500.00   | 100.00   | 3000.00   | 94.00   | 2820.00   | 215.00  | 6450.00   |
| 75.00   | 2250.00   | 250.00  | 7500.00   | 150.00  | 4500.00   | 100.00   | 3000.00   | 94.00   | 2820.00   | 215.00  | 6450.00   |
| 110.00  | 3300.00   | 250.00  | 7500.00   | 150.00  | 4500.00   | 100.00   | 3000.00   | 94.00   | 2820.00   | 215.00  | 6450.00   |
| 75.00   | 2250.00   | 250.00  | 7500.00   | 150.00  | 4500.00   | 100.00   | 3000.00   | 94.00   | 2820.00   | 215.00  | 6450.00   |
| 2500.00 | 15000.00  | 5000.00 | 30000.00  | 4500.00 | 27000.00  | 10000.00 | 60000.00  | 7412.00 | 44472.00  | 8475.00 | 50850.00  |

|           |             |           |             |           |             |           |            |           |             |           |             |
|-----------|-------------|-----------|-------------|-----------|-------------|-----------|------------|-----------|-------------|-----------|-------------|
| 448585.00 | 10766040.00 | 470000.00 | 11280000.00 | 475000.00 | 11400000.00 | 401165.00 | 9627960.00 | 507264.00 | 12174336.00 | 465230.00 | 11165520.00 |
| 96587.00  | 579522.00   | 72500.00  | 435000.00   | 45555.00  | 273330.00   | 66370.00  | 398220.00  | 79999.00  | 479994.00   | 74178.00  | 445068.00   |
| 2000.00   | 200000.00   | 450.00    | 45000.00    | 20.00     | 2000.00     | 100.00    | 10000.00   | 106.00    | 10600.00    | 9.00      | 900.00      |
| 400.00    | 40000.00    | 350.00    | 35000.00    | 350.00    | 35000.00    | 350.00    | 35000.00   | 471.00    | 47100.00    | 362.00    | 36200.00    |
| 1350.00   | 81000.00    | 2300.00   | 138000.00   | 2800.00   | 168000.00   | 2100.00   | 126000.00  | 3294.00   | 197640.00   | 1639.00   | 98340.00    |
| 1500.00   | 12000.00    | 3000.00   | 24000.00    | 5000.00   | 40000.00    | 3000.00   | 24000.00   | 7765.00   | 62120.00    | 2825.00   | 22600.00    |
| 1500.00   | 12000.00    | 6000.00   | 48000.00    | 1500.00   | 12000.00    | 4000.00   | 32000.00   | 9059.00   | 72472.00    | 5085.00   | 40680.00    |

|         |          |         |           |          |           |         |          |          |           |          |           |
|---------|----------|---------|-----------|----------|-----------|---------|----------|----------|-----------|----------|-----------|
| 1500.00 | 12000.00 | 2500.00 | 20000.00  | 2500.00  | 20000.00  | 650.00  | 5200.00  | 7765.00  | 62120.00  | 2825.00  | 22600.00  |
| 1500.00 | 12000.00 | 5000.00 | 40000.00  | 2000.00  | 16000.00  | 750.00  | 6000.00  | 9706.00  | 77648.00  | 5085.00  | 40680.00  |
| 1500.00 | 12000.00 | 5000.00 | 40000.00  | 9000.00  | 72000.00  | 6500.00 | 52000.00 | 5824.00  | 46592.00  | 6780.00  | 54240.00  |
| 1000.00 | 10000.00 | 7000.00 | 70000.00  | 3500.00  | 35000.00  | 1500.00 | 15000.00 | 5825.00  | 58250.00  | 3955.00  | 39550.00  |
| 110.00  | 22000.00 | 90.00   | 18000.00  | 200.00   | 40000.00  | 20.00   | 4000.00  | 218.00   | 43600.00  | 328.00   | 65600.00  |
| 110.00  | 13200.00 | 100.00  | 12000.00  | 40.00    | 4800.00   | 15.00   | 1800.00  | 24.00    | 2880.00   | 28.00    | 3360.00   |
| 850.00  | 35700.00 | 3500.00 | 147000.00 | 3700.00  | 155400.00 | 950.00  | 39900.00 | 4706.00  | 197652.00 | 2373.00  | 99666.00  |
| 550.00  | 17600.00 | 2000.00 | 64000.00  | 3000.00  | 96000.00  | 900.00  | 28800.00 | 2235.00  | 71520.00  | 2373.00  | 75936.00  |
| 550.00  | 5500.00  | 2000.00 | 20000.00  | 2500.00  | 25000.00  | 1000.00 | 10000.00 | 2353.00  | 23530.00  | 2373.00  | 23730.00  |
| 850.00  | 35700.00 | 1200.00 | 50400.00  | 700.00   | 29400.00  | 900.00  | 37800.00 | 941.00   | 39522.00  | 339.00   | 14238.00  |
| 6500.00 | 32500.00 | 2000.00 | 10000.00  | 15000.00 | 75000.00  | 750.00  | 3750.00  | 25882.00 | 129410.00 | 20340.00 | 101700.00 |

|           |           |           |           |           |           |           |           |           |           |           |           |
|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|-----------|
| 430000.00 | 430000.00 | 357160.00 | 357160.00 | 450000.00 | 450000.00 | 446450.00 | 446450.00 | 535740.00 | 535740.00 | 400000.00 | 400000.00 |
| 450000.00 | 450000.00 | 357160.00 | 357160.00 | 450000.00 | 450000.00 | 446450.00 | 446450.00 | 535740.00 | 535740.00 | 400000.00 | 400000.00 |

20213952.00

19952060.00

20754142.00

17663026.00

22963372.00

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Signature Not Verified

Digitally signed by B NAGESWARA RAO

Date: 2020.02.25 12:31:50 IST

Location: eProcurement System for Central PSUs

