

**Amendment No. 4**

Date: 19.01.2018

**Tender Package Name: “Design, Manufacturing, Supply, Erection, Testing & Commissioning of 160 MVA, 220/33-33 kV Gas Insulated Substation (GIS) at Lassipora on Turnkey Basis associated with Strengthening of Transmission System of JKPDD under PMDP Scheme-15**

**Tender Specification No- RECTPCL/PIA/JKPDD/SS- 02 Dated: 18-11-2017**

S. No.	Clause No.	Existing Clause	To be Read as
<b>A. INVITATION FOR BIDS , SEC-I, VOL-I</b>			
1.	<b>Clause No-3.1,</b>	<p>.....</p> <p>.....</p> <p>Construction of 220/33 kV Lassipora (GIS) Grid Substation:-</p> <p>.....</p> <p>vi. Single Phase Auto transformer (53.33 MVA, 220/33 kV)- 4 Nos</p>	<p>.....</p> <p>.....</p> <p>Construction of 220/33 kV Lassipora (GIS) Grid Substation:-</p> <p>.....</p> <p>vi. Single Phase Auto transformer (53.33 MVA, <b>220/33-33 kV</b>)- 4 Nos</p> <p><b>Note: For all purposes Bidder may note that Transformer rating for the said project to be read as mentioned above.</b></p>
<b>B. INSTRUCTION TO BIDDER , SEC-II, VOL-I</b>			
1.	<b>Clause no-6.4</b>	The Bidder’s designated representative(s) is/are invited to attend a pre-bid meeting, which, if convened, will take place at the venue and time stipulated in the IFB. The purpose of the meeting will be to clarify any issues regarding the e-procurement method, the Bidding Documents in general and the	The Bidder’s designated representative(s) is/are invited to attend a pre-bid meeting, which, if convened, will take place at the venue and time stipulated in the IFB. The purpose of the meeting will be to clarify any issues regarding the e-procurement method, the Bidding Documents in general and the Technical Specifications in particular. The Bidder is requested, as

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		<p>Technical Specifications in particular. The Bidder is requested, as far as possible, to submit any question in writing, to reach the Employer not later than one week before the meeting. It may not be practicable at the meeting to answer questions received late, but questions and responses will be transmitted as indicated hereafter. Minutes of the meeting, including the text of the questions raised (without identifying name of the bidders) and the responses given, together with any responses prepared after the meeting, will be transmitted without delay through the e-bidding portal only. Any modification of the Bidding Documents listed in ITB Sub-Clause 5.1, which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an Addendum pursuant to ITB Clause 7 and not through the minutes of the pre-bid meeting.</p> <p>Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.</p>	<p>far as possible, to submit any question in writing, to reach the Employer not later than one week before the meeting. It may not be practicable at the meeting to answer questions received late, but questions and responses will be transmitted as indicated hereafter. Minutes of the meeting, including the text of the questions raised (without identifying name of the bidders) and the responses given, together with any responses prepared after the meeting, will be transmitted without delay through the e-bidding portal only. <b>Any modification of the Bidding Documents listed in ITB Sub-Clause 5.1, which may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of Clarification/Amendment/Addendum pursuant to ITB Clause-6 &amp; 7 respectively and not through the minutes of the pre-bid meeting.</b></p> <p>Non-attendance at the pre-bid meeting will not be a cause for disqualification of a bidder.</p>
2	<b>Clause No-7.2</b>	<p>The amendment will be notified only through the portal <a href="http://www.mstcecommerce.com/eprcho me/rectpcl">http://www.mstcecommerce.com/eprcho me/rectpcl</a>. The amendments to the Bidding Documents will be binding on the bidders and the notification of the amendment through portal shall be deemed to be</p>	<p>The amendment will be notified only through the portal <a href="http://www.mstcecommerce.com/eprcho me/rectpcl">http://www.mstcecommerce.com/eprcho me/rectpcl</a>. <b>The clarifications/amendments/addendums to the Bidding Documents will be binding on the bidders and the notification of the clarifications / amendments / addendums through portal shall be deemed to be construed that such clarifications /</b></p>

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		construed that such amendment(s) to the Bidding Documents have been taken into account by the Bidder in its bid.	<b>amendments / addendums to the Bidding Documents have been taken into account by the Bidder in its bid.</b>
3	<b>Clause No- 9.I. (ix) New Clause</b>	No such Clause	<b>Bidder shall submit signed copy of bid document alongwith all clarifications/ amendments/ addendums thereof issued in the e-bidding portal.</b>
4	<b>Clause No- 9.I. (x) New Clause</b>	No such Clause	<b>Bidders shall also submit Deed of Joint Undertaking to be executed between the Collaborator(s) along with the Bidder, duly signed and stamped on each page in original, if applicable as per the provisions mentioned in the Qualification Requirement.</b>
5	<b>Clause No- 9.II</b>	<p><b>Soft Copy Part</b></p> <p>Soft copy part of the bid shall comprise of following documents to be uploaded on the portal as per provisions therein.</p> <p>(a) <u>As part of First Envelope</u></p> <p>(i) Programmed file -Attachments (Attachment to Bid Form including attachment to QR) in M S Excel format &amp; its revision covering various attachments, Integrity Pact and bid form for first envelope.</p> <p>(ii) Scanned copies of all the documents mentioned at 15.4 of ITB.</p> <p>(b) <u>As part of Second Envelope</u></p>	<p><b>Soft Copy Part</b></p> <p>Soft copy part of the bid shall comprise of following documents to be uploaded on the portal as per provisions therein.</p> <p>(a) <u>As part of First Envelope (Cover-1 of the e-Bidding Portal)</u></p> <p>(i) Programmed file -Attachments (Attachment to Bid Form including attachment to QR) in MS Excel format &amp; its revision covering various attachments, Integrity Pact and bid form for first envelope.</p> <p>(ii) Scanned copies of all the documents mentioned at 15.4 of ITB <b>as part of Cover-2 of the e-Bidding portal.</b></p> <p>(iii) <b>Bidder shall submit signed &amp; Scanned</b></p>

S. No.	Clause No.	Existing Clause	To be Read as
		<p>(i) The Electronic Form/Template of the bid for Second Envelope (Price - Part) covering details regarding summary of price details.</p> <p>(ii) Price Schedules &amp; Bid Forms in MS excel format &amp; its revision covering various price schedules and bid forms for Second Envelope.</p>	<p><b>copy of bid document alongwith all clarifications/ amendments/ addendums thereof issued in the e-bidding portal.</b></p> <p><b>(b) <u>As part of Second Envelope (Cover-3 of the e-Bidding Portal)</u></b></p> <p>(i) The Electronic Form/Template of the bid for Second Envelope (Price - Part) covering details regarding summary of price details.</p> <p>(ii) Price Schedules &amp; Bid Forms in MS excel format &amp; its revision covering various price schedules and bid forms for Second Envelope.</p>
6	<b>Clause No-9.1</b>	<p>The bid shall be submitted by the Bidder under “Single Stage – Two Envelope” procedure of bidding. Under this procedure, the bid submitted by the Bidder in two envelopes - <u>First Envelope</u> (also referred to as Techno - Commercial Part) and <u>Second Envelope</u> (also referred to as Price Part) shall comprise of the following documents:</p> <p><u>First Envelope:</u></p> <p>(a) Bid Form (<u>First Envelope</u>) duly completed and signed by the Bidder, together with all Attachments &amp; Technical Data Sheets (available in Volume-III) as uploaded on the portal <a href="http://www.mstcecommerce.com/epr">http://www.mstcecommerce.com/epr</a></p>	<p>The bid shall be submitted by the Bidder under “Single Stage – Two Envelope” procedure of bidding. Under this procedure, the bid submitted by the Bidder in two envelopes - <u>First Envelope</u> (also referred to as Techno - Commercial Part) and <u>Second Envelope</u> (also referred to as Price Part) shall comprise of the following documents:</p> <p><b><u>First Envelope: (Cover-1 &amp; Cover-2 of the e-Bidding portal)</u></b></p> <p>(a) Bid Form (<u>First Envelope</u>) duly completed and signed by the Bidder, together with all Attachments &amp; Technical Data Sheets (available in Volume-III) as uploaded on the portal <a href="http://www.mstcecommerce.com/epr">http://www.mstcecommerce.com/epr</a> and identified in ITB Sub-Clause 9.3</p>

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		<p><a href="#">ochome/rectpcl</a> and identified in ITB Sub-Clause 9.3 below.</p> <p>(b) <u>Hard copy of the following documents submitted at the address mentioned at 1.1 above:</u></p> <p>(i) DD towards Bidding Document fee of the amount as specified in the in accordance with clause 5.4 of ITB or documentary evidence in support of exemption of Bidding Document fee as per ITB 5.5</p> <p>(ii) Bid Security (in Original) or documentary evidence in support of exemption of Bid Security, in separate envelope in accordance with clause 13 of ITB, Section-II</p> <p>(iii) Integrity Pact (in Original) in accordance with clause 9.3 (o) of ITB, Section-II in separate envelope;</p> <p>(iv) Power of Attorney as per Clause 9.3 (b);</p> <p>(v) In case of Bid from Joint Venture, the Joint Venture Agreement &amp; Power of Attorney of Joint</p>	<p>below.</p> <p>(b) <u>Hard copy of the following documents submitted at the address mentioned at 1.1 above:</u></p> <p>(i) DD towards Bidding Document fee of the amount as specified in the in accordance with clause 5.4 of ITB or documentary evidence in support of exemption of Bidding Document fee as per ITB 5.5</p> <p>(ii) Bid Security (in Original) or documentary evidence in support of exemption of Bid Security, in separate envelope in accordance with clause 13 of ITB, Section-II</p> <p>(iii) Integrity Pact (in Original) in accordance with clause 9.3 (o) of ITB, Section-II in separate envelope;</p> <p>(iv) Power of Attorney as per Clause 9.3 (b);</p> <p>(v) In case of Bid from Joint Venture, the Joint Venture Agreement &amp; Power of Attorney of Joint Venture Agreement</p> <p>(vi) Safety Pact (in Original) in accordance with clause 9.3 (s) of ITB, Section-II in separate envelope</p> <p>(vii) Any other document further specified in the Bidding Document duly signed and stamped</p>

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		<p>Venture Agreement</p> <p>(vi) Safety Pact (in Original) in accordance with clause 9.3 (s) of ITB, Section-II in separate envelope</p> <p>(vii) Any other document further specified in the Bidding Document duly signed and stamped on each page.</p> <p><b>Second Envelope:</b></p> <p>(a) Bid Form (<u>Second Envelope</u>) together with Price Schedules (available in Volume-III), duly completed as uploaded on the portal <a href="http://www.mstcecommerce.com/e-prochome/rectpcl">http://www.mstcecommerce.com/e-prochome/rectpcl</a>.</p>	<p>on each page.</p> <p>(viii) <b>Bidders shall also submit Deed of Joint Undertaking to be executed between the Collaborator(s) along with the Bidder, duly signed and stamped on each page in original, if applicable as per the provisions mentioned in the Qualification Requirement.</b></p> <p><b>Second Envelope: (Cover-3 of the e-Bidding Portal)</b></p> <p>(a) Bid Form (<u>Second Envelope</u>) together with Price Schedules (available in Volume-III), duly completed as uploaded on the portal <a href="http://www.mstcecommerce.com/e-prochome/rectpcl">http://www.mstcecommerce.com/e-prochome/rectpcl</a>.</p>
7	<b>Clause No- 24.1(b)</b>	Achievement of specified performance criteria by the facilities.	<p>Achievement of specified performance criteria by the facilities.</p> <p><b><u>FOR POWER TRANSFORMER:</u></b></p> <p>The criteria for acceptance of guaranteed performance or efficiency of Transformers viz; 1) 53.33MVA, 220/33KV, 1-Phase Power Transformer as specified in Technical Specifications, shall be “Copper Loss (Load Loss)&gt; Iron Loss (No Load Loss)&gt; Cooler Loss (Auxiliary Loss)” failing which bid shall be considered non-responsive</p>

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8	Clause No- 27.5 (c)	<p>Performance Guarantees of the Equipments</p> <p>For the purposes of the evaluation, the adjustment specified in the ITB will be added to the bid price.</p>	<p>Performance Guarantees of the Equipments</p> <p>For the purposes of evaluation, the adjustment specified under this section of ITB will be added to the bid price is as follows.</p> <p><b>Capitalization Cost of Transformer Losses (to be used for evaluation of Price Bid)</b> = Capitalized cost of iron losses + Capitalized cost of copper losses + Capitalized cost of auxiliary losses.</p> <p>Capitalized cost of iron = <math>8400 \times EC \times \frac{(1+r)^n - 1}{r(1+r)^n}</math> losses per kW</p> <p>Capitalized cost of copper = <math>8400 \times EC \times \frac{(1+r)^n - 1}{r(1+r)^n} \times LS</math> Losses per kW</p> <p>Capitalized cost of auxiliary = <math>0.4 \times 8400 \times EC \times \frac{(1+r)^n - 1}{r(1+r)^n}</math> Losses per kW</p> <p>Wherein –</p> <p>Rate of interest (r = 12.5%)  Rate of electrical energy (EC = Rs. 7/kW)  Life of the transformer (n = 35 Years)  Average annual loss factor (LS = 0.432)  Annual load factor (LF = 60)</p> <p>The best parameter of loss quoted at rated voltage,</p>

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			<p>rated frequency, rated current at 75°C for each equipment/ unit of the facilities, under each Equipment Category quoted by any technically responsive bidder shall be taken as basis and the difference between this best parameter and that quoted by the particular bidder multiplied with the total no. of those items/ units of the facilities, shall be used to arrive at differential price to be applied for the bid.</p> <p>For the purpose of evaluation, no adjustment to the bid price towards performance guarantees of LT Transformer is applicable.</p>
<b>C. Qualification Requirement of the Bidder , SEC-III, VOL-I</b>			
<b>1</b>	<b>Clause No-1.1</b>	<p>The Bidder must have Designed, Manufactured, Type Tested (As per IEC or equivalent standard), Supplied, Erected, Tested &amp; commissioned of atleast two (2) number of GIS substations having cumulatively atleast 12 (Twelve) circuit breaker bays* of 220kV or above in India only. The two (2) nos. GIS substations above should have been in satisfactory operation# for atleast two (2) years as on the originally scheduled date of bid opening i.e. 19.12.2017. Further, at least one (1) number of above GIS substation must have been commissioned within last seven (7) years as on the date of bid opening.</p>	<p>The Bidder must have Designed, Manufactured, Type Tested (As per IEC or equivalent standard), Supplied, Erected, Tested &amp; commissioned of atleast two (2) number of GIS substations having cumulatively atleast 12 (Twelve) circuit breaker bays* of 220kV or above in India only. The two (2) nos. GIS substations above should have been in satisfactory operation# for atleast two (2) years as on the originally scheduled date of bid opening i.e. 19.12.2017. Further, at least one (1) number of above GIS substation must have been commissioned within last seven (7) years as on the date of bid opening.</p> <p>(#) Satisfactory operation – means certificate issued by the employer certifying the operation without any</p>

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		(#) Satisfactory operation - means certificate issued by the employer certifying the operation without any adverse remark.	adverse remark. <b>Note:</b> <b>Type test requirement is for the Equipment to be supplied and not necessary to be carried out in India.</b>  <b>In case of an Indian GIS manufacturer who has not conducted the type testing of 400kV/220kV GIS manufactured in India but the parent company or subsidiary company or group company have conducted the type testing of 400kV/220kV GIS manufactured at their works, the type test reports of the parent company or subsidiary company or group company shall be acceptable provided that the design of the 400kV/220 kV GIS being offered from Indian works is same as that of GIS manufactured &amp; successful type tested from the parent company or subsidiary company or group.</b>
<b>D. GENERAL CONDITIONS OF CONTRACT , SEC-IV, VOL-I</b>			
<b>1</b>	<b>Clause No-39,</b>  <b>Limitations of Liability</b>	<u><b>Limitation of Liability:</b></u> <b>(i) Liability after expiration of Defects Liability Period</b>  The Contractor shall have no liability to the RECTPCL for any loss of or damage to the RECTPCL's physical property which occurs after the expiration of the Defects Liability Period unless caused by	<u><b>Limitation of Liability:</b></u> <b>(i) Except in cases of gross negligence or willful misconduct,</b>  <b>(a) the Contractor and the Employer shall not be liable to the other party for any indirect or consequential loss or damage, loss of use, loss of production, or loss of profits or interest costs, provided that this exclusion</b>

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		<p>gross misconduct of the Contractor.</p> <p><b>(ii) Exclusive Remedies</b></p> <p>The RECTPCL and the Contractor intend that their respective rights, obligations and liabilities as provided for in these conditions shall alone govern their rights under the Contract and in relation to the Works.</p> <p>Accordingly, the remedies provided under the Contract in respect of or in consequence of:</p> <ul style="list-style-type: none"> <li>a) any breach of Contract, or</li> <li>b) any negligent act or omission, or</li> <li>c) death or personal injury, or</li> <li>d) loss or damage to any property</li> </ul> <p>are to be to the exclusion of any other remedy that either may have against the other under the law governing the Contract or otherwise.</p> <p><b>(iii) Mitigation of Loss or Damage</b></p> <p>In all cases the party claiming a breach of contract or a right to be indemnified in accordance with the contract shall be obliged to take all reasonable measures</p>	<p>shall not apply to any obligation of the Contractor to pay liquidated damages to the Employer and</p> <p>(b) the aggregate liability of the Contractor to the Employer, whether under the Contract, in tort or otherwise, shall not exceed the total Contract Price, provided that this limitation shall not apply to the cost of repairing or replacing defective equipment, or to any obligation of the Contractor to indemnify the Employer with respect to patent infringement.</p> <p><b>(ii) Liability after expiration of Defects Liability Period</b></p> <p>The Contractor shall have no liability to the RECTPCL for any loss of or damage to the RECTPCL's physical property which occurs after the expiration of the Defects Liability Period unless caused by gross misconduct of the Contractor.</p> <p><b>(iii) Exclusive Remedies</b></p> <p>The RECTPCL and the Contractor intend that their respective rights, obligations and liabilities as provided for in these conditions shall alone govern their rights under the Contract and in relation to the</p>

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		to mitigate the loss or damage	<p>Works.</p> <p>Accordingly, the remedies provided under the Contract in respect of or in consequence of:</p> <ul style="list-style-type: none"> <li>e) any breach of Contract, or</li> <li>f) any negligent act or omission, or</li> <li>g) death or personal injury, or</li> <li>h) loss or damage to any property</li> </ul> <p>are to be to the exclusion of any other remedy that either may have against the other under the law governing the Contract or otherwise.</p> <p><b>(iv) Mitigation of Loss or Damage</b></p> <p>In all cases the party claiming a breach of contract or a right to be indemnified in accordance with the contract shall be obliged to take all reasonable measures to mitigate the loss or damage</p>
<b>E. SAMPLE FORMS &amp; PROCEDURES, SEC-IX, VOL-I</b>			
<b>1</b>	<b>Appendix-7 (Guarantees, Liquidity Damages for Non- performance)</b>	<b>Existing Appendix</b>	<b>Revised Appendix for Guarantees, Liquidity Damages for Non-performance is annexed at Annexure-1 to Amendment-4.</b>

**4.7 GUARANTEES, LIQUIDATED DAMAGES FOR NON – PERFORMANCE**

1. The equipment offered shall meet the rating and performance requirements stipulated in Technical Specification for various equipment or indicated in Data requirement.
2. The ratings and performance figures of the below mentioned equipments are guaranteed by you.

<b>Sl.</b>	<b>Equipment</b>	<b>Parameter to be taken for applying differential price factor (F)</b>
1.	53.33 MVA, 220/33 kV, Single Phase Power Transformer	Differential Copper loss (KW)
		Differential Iron loss (KW)
		Auxiliary Losses (KW)

3. If the aforementioned guarantees are not established at factory tests, then the Employer at his discretion may reject or accept the equipment after assessing the liquidated damages as per table above against the Contract and such amounts plus GST payable thereon shall be deducted from the Contract Price or otherwise recovered from the Contractor. However, the equipment under no circumstances shall be accepted if the measured losses are beyond the permissible limit mentioned at clause 4 (e) of this appendix.

**4. GUARANTEE, EVALUATION OF LOSSES & PENALTIES**

The bidder shall indicate the Guaranteed values of No load losses, load losses and auxiliary losses in his bid.

**a. Capitalization Formula for Transformer Losses**

The rate of Capitalization of transformer losses depends upon the rate of interest, rate of electrical energy per kWh, life of transformer and average annual loss factor. In computing the rate of capitalization of iron losses, copper losses and auxiliary losses, following realization assumptions have been made:

- i) Rate of interest (r = 12.5%)
- ii) Rate of electrical energy (EC = Rs. 7/kW)
- iii) Life of the transformer (n = 35 Years)
- iv) Average annual loss factor (LS = 0.432)
- v) Annual load factor (LF = 60)

**Capitalized Cost of Transformer** = Initial cost + Capitalized cost of annual iron losses + Capitalized cost of annual copper losses + Capitalized cost of annual auxiliary losses.

$$\text{Capitalized cost of iron losses per KW} = 8400 \times \text{EC} \times \frac{(1+r)^n - 1}{r(1+r)^n}$$

$$\text{Capitalized cost of copper Losses per kW} = 8400 \times \text{EC} \times \frac{(1+r)^n - 1}{r(1+r)^n} \times \text{LS}$$

$$\text{Capitalized cost of auxiliary Losses per kW} = 0.4 \times 8400 \times \text{EC} \times \frac{(1+r)^n - 1}{r(1+r)^n}$$

- b. The measured losses of each transformer shall not exceed the value in the tender, by more than the tolerance admissible as per **IS: 2026**. The losses need to be very low.
- c. The No load loss in Kilo watts at rated voltage and rated frequency shall be guaranteed. The excess of difference between test values of total losses and No load losses in 'Kilo-watt' over corresponding guaranteed losses shall be recovered. In case of fraction of KW, the penalties shall be applied for full KW.
- d. **Liquidated Damage for Excessive Losses:** On testing, if it is found that actual losses are more than the values quoted including maximum tolerance, the liquidate damages shall be recovered from the bidder.

Liquidated damages shall be applied in the following manner depending on the variation of losses with respect to the maximum values:

- i. Measured losses exceeding Maximum value by 0 to +5%: rates of LD that calculated from above formula.
  - ii. Measured losses exceeding Maximum value by > +5% to +10%: Twice the rates of LD that calculated from above formula.
  - iii. Measured losses exceeding Maximum value by > +10% to +15%: Four times the rates of LD that calculated from above formula.
- e. **REJECTION :**  
The Employer may reject any transformer if during tests or service any of the following conditions arise:
- i) No load loss exceeds the guaranteed value by 15% or more.
  - ii) Load loss exceeds the guaranteed value by 15% or more.
  - iii) Total losses exceed the guaranteed value by 10% or more.