

**Amendment No. - 01 dated 04/05/2023 for 765kV AIS Substation Extn. Package SS-86 for (i) Extension of 765/400/220 kV Fatehgarh-III Substation including 2X125 MVAR, 420 kV Bus Reactors associated with “Transmission system for evacuation of power from REZ in Rajasthan (20GW) under Phase-III Part E1” and (ii) 1 set of Bus Sectionalizer at 400kV level of 765/400/220kV Fatehgarh-III PS (Section-2).**

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S. No.	Volume/ Section/ Clause	Existing Provision in the Bidding Documents	Provision as Amended/Added
1	Volume-II Section Project Rev-0 SPECIFIC REQUIREMEN T Clause no. 9.10	New Clause added	Equipment/Material/Items from a Indian manufacture who have specified transfer of technology (TOT) arrangement with an entity from a country which shares land border with India shall be accepted only if the Indian Manufacturer is complying the requirement of prevailing Guideline by Government of India under Rule 144(xi) of the General financial Rule (GFR) 2017.
2	Volume-II Section Project Rev-0 SPECIFIC REQUIREMEN T Clause no. 9.11	New Clause added	<p><b>Clause 24 of Section GTR rev 15 is amended as:</b></p> <p><b>24.0 TECHNICAL REQUIREMENT OF EQUIPMENTS</b></p> <p>Following equipment shall be offered from the Indian Manufacturing facilities of manufacturer(s) who meets the technical requirements as stipulated here, provided the same equipment are not covered under the Bidder’s Qualifying requirement of the Bidding Documents.</p> <p>Legend:</p> <ul style="list-style-type: none"> <li>* : voltage class of respective equipment as applicable.</li> <li># : <b>satisfactory operation</b> means certificate issued by the Employer/Utility certifying the operation without any adverse remark.</li> <li>@ : <b>Circuit Breaker Bay</b> means a bay used for controlling a line or a transformer or a reactor or a bus section or a bus coupler and comprising of at least one circuit breaker, one disconnecter and three nos. of single phase CTs / Bushing CTs</li> </ul>

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NOA: means Notification Of Award

**24.1 Technical requirements for 765/400/220/132kV\* Air Insulated Switchgear (AIS) Equipment\*:**

**A) Circuit Breaker**

(i) The manufacturer(s) whose 765/400/220/132kV\* Circuit Breaker(s) are offered, must have, manufactured, type tested (as per IEC/IS or equivalent standard) and supplied 715/345/220/132kV\* or higher voltage class Circuit Breaker(s), which are in satisfactory operation# for atleast two (2) years as on the date of NOA.

(ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India for the offered Circuit Breaker and not meeting the requirement stipulated in (i) above, can also be considered provided that  
a) 715/345/220/132kV\* or higher Voltage class Circuit Breaker(s) must have been manufactured in the above Indian works & type tested (as per IEC/IS standard) and supplied as on the date of NOA.

b) In case manufacturer meets the technical requirement through clause (ii) above, warranty obligations for additional warranty of two (2) years over & above the warranty period as specified in the bidding documents shall be applicable for the entire quantity of the offered Circuit Breaker(s) to be supplied under the contract. Further, contractor shall furnish performance guarantee for an amount of 10% of the ex-works cost of the Circuit Breaker(s)\* for the additional warranty period in addition to the contract performance guarantee to be submitted by the contractor.

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**B) Isolator, Current Transformer, Capacitive Voltage transformer, Inductive Voltage transformer, Surge Arrester and Wave Trap)**

(i) The manufacturer whose 765/400/220/132kV\* equipment(s) are offered, must have manufactured, type tested (as per IS/IEC or equivalent standard) and supplied 715/345/220/132kV\* or higher voltage class equipment(s), which are in satisfactory operation# for at least two (2) years as on the date of NOA.

OR

(ii) The manufacturer, who have established manufacturing and testing facilities in India for the offered equipment(s) and not meeting the requirement stipulated in (i) above, can also be considered provided that:

a) 715/345/220/132kV\* or higher Voltage class equipment(s) must have been manufactured in the above Indian works & type tested (as per IS/IEC standard) as on the date of NOA

b) Manufacturer has manufactured, type tested (as per IS/IEC or equivalent standard) and supplied equipment(s) of 345kV or above voltage class (applicable for 765kV\* Equipment)/220kV or above voltage class (applicable for 400kV\* equipment) /132kV or above voltage class (applicable for 220kV\* equipment) / 66kV or higher voltage class (applicable for 132kV\* equipment), which are in satisfactory operation# for at least two (2) years as on the date of NOA.

c) Warranty obligations for additional warranty of two (2) years over & above the warranty period as specified in the bidding documents shall be applicable for the entire quantity of the offered equipment(s) to be supplied under the contract. Further, contractor shall furnish performance guarantee

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for an amount of 10% of the ex-works cost of the equipment(s)\* for the additional warranty period in addition to the contract Performance guarantee to be submitted by the contractor.

OR

(iii) The manufacturer, who have established manufacturing and testing facilities in India for the offered equipment(s) based on technological support of a parent company or collaborator and not meeting the requirement stipulated in (i) above, can also be considered provided that:

a) 715/345/220/132kV\* or higher Voltage class equipment(s) must have been manufactured in the above Indian works & type tested (as per IS/IEC standard) as on the date of NOA.

b) The parent company or collaborator meets the qualifying requirements stipulated under (i) given above. A valid collaboration agreement for technology transfer / license to design, manufacture, test and supply the 765/400/220/132kV\* Air Insulated Switchgear (AIS) Equipment(s)\* in India, shall be submitted.

c) The parent company/collaborator shall furnish performance guarantee for an amount of 10% of the ex-works cost of such equipment(s) and this performance guarantee shall be in addition to contract performance guarantee to be submitted by the contractor

Legends:

\* : voltage class of respective equipment as applicable.

# : satisfactory operation means certificate issued by the Employer/Utility certifying the operation without any adverse remark.

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#### 24.2 Technical Requirement for 765kV class Transformer

- (i) The Manufacturer whose 765kV Transformer(s) are offered must have designed, manufactured, tested & supplied 715 kV or higher voltage class one (1) number 1-phase Transformer of at least 500 MVA capacity or at least three (3) numbers 1-phase Transformers each having a capacity of at least 166 MVA, and the same transformer (s) should have been in satisfactory operation# for atleast two (2) years as on the date of NOA.
- (ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India and not meeting the requirement stipulated in (i) above, can also be considered provided that
  - a) 715 kV or higher voltage class either One (1) no. 1-phase Transformer of at least 166 MVA capacity or One (1) no. 1-phase Reactor of at least 80 MVAR capacity must have been manufactured in the above Indian works based on technological support of collaborator, type tested (as per IEC/IS standard) and same should have been supplied as on the date of NOA.
  - b) The collaborator meets the requirements stipulated in (i) above. A valid collaboration agreement for technology transfer / license to design, manufacture, test and supply 765kV transformer in India, shall be submitted.

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- c) the collaborator shall furnish performance guarantee for an amount of **10%** of the ex-works cost of such equipment(s) and this performance guarantee shall be in addition to contract performance guarantee to be submitted by the contractor

**24.3 Technical Requirement for 765kV class Reactor**

- (i) The Manufacturer whose 765kV Reactor(s) are offered must have designed, manufactured, tested & supplied 715 kV or higher voltage class one (1) number 1-phase Reactor of at least 110 MVAR capacity or at least three (3) numbers 1-phase Reactors each having a capacity of at least 36.7 MVAR and the same Reactor(s) should have been in satisfactory operation# for atleast two (2) years as on the date of NOA.

OR

The Manufacturer must have designed, manufactured, tested & supplied 715 kV or higher voltage class one (1) number 1-phase Transformer of at least 500 MVA capacity or at least three (3) numbers 1-phase Transformers each having a capacity of at least 166 MVA and the bidder should have designed, manufactured, tested & supplied 345 kV or higher voltage class one (1) number 3-phase Reactor of at least 50 MVAR capacity or at least three (3) numbers 1-phase Reactors each having a capacity of at least 16.7 MVAR and the

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same Transformer(s) & Reactor(s) should have been in satisfactory operation# for atleast two (2) years as on the date of NOA.

- (ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India and not meeting the requirement stipulated in (i) above, can also be considered provided that
- a) 715 kV or higher voltage class either One (1) no. 1-phase Reactor of at least 80 MVAR capacity or One (1) no. 1-phase Transformer of at least 166 MVA capacity must have been manufactured in the above Indian works based on technological support of collaborator, type tested (as per IEC/IS standard) and same should have been supplied as on the date of NOA.
  - b) The collaborator meets the requirements stipulated in (i) above. A valid collaboration agreement for technology transfer/license to design, manufacture, test and supply 765kV Reactor in India, shall be submitted.
  - c) the collaborator shall furnish performance guarantee for an amount of 10% of the ex-works cost of such equipment(s) and this performance guarantee shall be in addition to contract performance guarantee to be submitted by the contractor.

**24.4 Technical Requirement for 400kV, 220kV, 132kV class Transformer**

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- (i) The manufacturer whose transformer(s) are offered must have designed, manufactured, tested and supplied transformers as per table below:

345kV or above class 3-phase transformers of at least 200 MVA or at least three (3) nos. 1-phase Transformers each having capacity of at least 66.7 MVA	applicable for supply of 400kV class Transformer
220kV or above class 3-phase transformers of at least 50 MVA or at least three (3) nos. 1-phase Transformers each having capacity of at least 16.7 MVA	applicable for supply of 220kV class Transformer
commissioned 132kV or above class 3-phase transformers of at least 20 MVA or at least three (3) nos. 1-phase Transformers each having capacity of at least 6.7 MVA	applicable for supply of 132kV class Transformer

These Transformer(s) must have been in satisfactory operation# for atleast two (2) years as on the date of NOA.



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- (ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India and not meeting the requirement stipulated in (i) above, can also be considered provided that
  - a) 220kV (applicable for supply of 400kV class Transformer)/ 132kV (applicable for supply of 220kV class Transformer)/ 66kV (applicable for supply of 132kVclass Transformer)or higher voltage class transformers must have been designed, manufactured in the above Indian works based on technological support of collaborator, type tested (as per IEC/IS standard) and supplied as on the date of NOA.
  - b) The collaborator meets the requirements stipulated in (i) above. A valid collaboration agreement for technology transfer / license to design, manufacture, test and supply 400kV/220kV/132kV\* transformer in India, shall be submitted.
  - c) The collaborator shall furnish performance guarantee for an amount of 10% of the ex-works cost of such equipment(s) and this performance guarantee shall be in addition to contract performance guarantee to be submitted by the contractor.

**24.5 Technical Requirement for 400kV, 220kV and 132kV class Reactor**

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- (i) The Manufacturer whose 400kV/220kV/132kV\* Reactor(s) are offered must have designed, manufactured, tested & supplied Reactor as per table below:

345kV or above class 3-phase shunt reactor of at least 50 MVAR capacity or at least three (3) nos. 1-phase Shunt Reactors, each having capacity of at least 16.7 MVAR	applicable for supply of 400kV class Reactors
220kV or above class 3-phase shunt reactor of at least 20 MVAR capacity or at least three (3) nos. 1-phase Shunt Reactors each having capacity of at least 6.67 MVAR	applicable for supply of 220kV class Transformer
132kV or above class 3-phase shunt reactor of at least 15 MVAR capacity or at least three (3) nos. 1-phase Shunt Reactors each having capacity of at least 5 MVAR	applicable for supply of 132kV class Transformer

These Reactor(s) must have been in satisfactory operation# for atleast two (2) years as on the date of NOA.

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			<p>(ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India and not meeting the requirement stipulated in (i) above, can also be considered provided that</p> <p>a) Such manufacturer has designed, manufactured based on technological support of collaborator, type tested (as per IEC/IS standard) and supplied 400kV class transformer or 220kV or above class shunt reactors (applicable for supply of 400kV class Reactors) / 220kV class transformer or 132kV or above class shunt reactors (applicable for supply of 220kV class Reactors)/ 132kV class transformer or 66kV or above class shunt reactors (applicable for supply of 132kV class Reactors) as on the date of NOA.</p> <p>b) The collaborator meets the requirements stipulated in (i) above. A valid collaboration agreement for technology transfer/license to design, manufacture, test and supply the Reactor in India, shall be submitted.</p> <p>c) the collaborator shall furnish performance guarantee for an amount of 10% of the ex-works cost of such equipment(s) and this performance guarantee shall be in addition to contract performance guarantee to be submitted by the contractor.</p> <p><b>24.6 Technical Requirement for 400 kV Grade XLPE Power Cables</b></p> <p>(i) The manufacturer(s) whose XLPE Power Cables are offered must have designed, manufactured, type tested and supplied in a single contract</p>
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atleast 5 (five) km of single core, 400kV grade XLPE insulated cable which must be in operation for atleast 2 (two) years as on the date of NOA.

(ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India and not meeting the requirement stipulated in (i) above, can also be considered provided that

a) The manufacturer must have designed, manufactured, type tested and supplied 400kV grade XLPE insulated cable and which must be in satisfactory operation# for atleast one (1) year as on the date of NOA.

OR

b) The manufacturer must have designed, manufactured, type tested and completed Pre-qualification (PQ) tests as per IEC for 400kV grade XLPE insulated Cable as on the date of NOA.

Note: In case manufacturer meets the technical requirement through clause (ii) above, warranty obligations for additional warranty of two(2) years over & above the warranty period as specified in the bidding documents shall be applicable for the entire quantity of cable to supplied under the contract. Further, contractor shall furnish performance guarantee for an amount of 10% of the ex-works cost of the equipments(s)\* and this performance guarantee shall be in addition to the contract performance guarantee to be submitted by the contractor.

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**24.7 Technical Requirement for 220KV,132kV,110kV Grade XLPE Power Cables**

- (i) The manufacturer(s) whose XLPE Power Cables are offered must have designed, manufactured, type tested and supplied in a single contract atleast 5 (five) km of single core, 220kV/132kV/110kV\* or higher grade XLPE insulated cable which must be in operation for atleast 2 (two) years as on the date of NOA.
- (ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India and not meeting the requirement stipulated in (i) above, can also be considered provided that
  - a) The manufacturer must have designed, manufactured, type tested and supplied 220kV/132kV/110kV\* or higher grade XLPE insulated cable and which must be in satisfactory operation# for atleast one (1) year as on the date of NOA.

OR

- b) The manufacturer must have designed, manufactured, type tested and completed Pre-qualification (PQ) tests as per IEC for 220kV/132kV/110kV\* or higher grade XLPE insulated Cable as on the date of NOA.

Note: In case manufacturer meets the technical requirement through clause (ii) above, warranty obligations for additional warranty of two(2) years over & above the warranty period as specified in the bidding documents shall be applicable for the entire quantity of cable to supplied under the contract.

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Further, contractor shall furnish performance guarantee for an amount of 10% of the ex-works cost of the equipments(s)\* and this performance guarantee shall be in addition to the contract performance guarantee to be submitted by the contractor

**24.8 Technical Requirement for 66kV Grade XLPE Power Cables**

(i) The manufacturer(s) whose XLPE Power Cables are offered must have designed, manufactured, type tested and supplied in a single contract atleast 5 (five) km of single core, 66kV or higher grade XLPE insulated cable which must be in satisfactory operation# for atleast two (2) years as on the date of NOA.

(ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India and not meeting the requirement stipulated in (i) above, can also be considered provided that

a) The manufacturer must have designed, manufactured, type tested and supplied 66kV or higher grade XLPE insulated cable and which must be in satisfactory operation# for atleast one (1) year as on the date of NOA.

**24.9 Technical Requirement for 1.1 KV Grade PVC Control Cable**

The manufacturer(s), whose PVC control cables are offered, must have designed, manufactured, tested and supplied in a single contract atleast 100 Kms of 1.1kV grade PVC insulated control cables as on the date of NOA. Further the manufacturer must also have designed, manufactured, tested

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			and supplied atleast 1 km of 27C x 2.5 Sq.mm or higher size as on the date of NOA.
		<b>24.10</b>	<p><b>Technical Requirement for 1.1 KV Grade PVC Power Cable</b></p> <p>The manufacturer(s), whose PVC Power Cables are offered, must have designed, manufactured, tested and supplied in a single contract atleast 100 Kms of 1.1kV or higher grade PVC insulated power cables as on the date of NOA. Further the manufacturer must also have designed, manufactured, tested and supplied atleast 1 km of 1C x 150 Sq. mm or higher size as on the date of NOA.</p>
		<b>24.11</b>	<p><b>Technical Requirement for 1.1 KV Grade XLPE Power Cables</b></p> <p>The manufacturer(s), whose XLPE Power cables are offered, must have designed, manufactured, tested and supplied in a single contract atleast 25 Kms of 1.1 KV or higher grade XLPE insulated power cables as on the date of NOA. Further the manufacturer must also have designed, manufactured, tested and supplied atleast 1 km of 1C x 630 Sq. mm or higher size as on the date of NOA.</p>
		<b>24.12</b>	<p><b>Technical Requirement for LT Switchgear</b></p> <p>i) The manufacturer whose LT Switchgear(s) are offered, must be a manufacturer of LT Switchboards of the type and rating being offered. He must have designed, manufactured, tested and supplied atleast 50 nos. draw out circuit breaker panels, out of which atleast 5 nos. should have been with relay and protection schemes with current transformer. He must have also manufactured atleast 50 nos. MCC panels comprising</p>

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			<p>of MCCBs (ie Moulded Case Circuit Breakers) modules of the type offered which must be in satisfactory operation# as on the date of NOA.</p> <p>ii) The Switchgear items (such as circuit breakers, fuse switch units, contactors etc.), may be of his own make or shall be procured from reputed manufacturers and of proven design, atleast one hundred circuit breakers of the make and type being offered must have been in satisfactory operation# as on the date of NOA.</p> <p><b>24.13 Technical Requirements for Battery</b></p> <p>The manufacturer whose Batteries are offered, must have designed, manufactured and supplied DC Batteries of the type specified and being offered, having a capacity of atleast 600 AH and these must be satisfactory operation# for atleast two (2) years in power sector or industrial installations as on the date of NOA.</p> <p><b>24.14 Technical Requirements for Battery Charger</b></p> <p>The manufacturer, whose Battery Chargers are offered, must have designed, manufactured and supplied Battery Chargers generally of the type offered, with static automatic voltage regulators and having a continuous output of atleast ten (10) KW and these must have been in satisfactory operation# as on the date of NOA.</p> <p><b>24.15 Technical Requirements for LT Transformer</b></p> <p>i) The manufacturer, whose LT transformer(s) are offered, must have designed, manufactured, type tested including short circuit test as per IEC/IS or equivalent standards and supplied transformer(s) of atleast</p>
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			<p>33kV class of 315kVA or higher. The transformer must have been in satisfactory operation# for atleast two (2) years as on the date of NOA.</p> <p>ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India and not meeting the requirement stipulated in (i) above, can also be considered provided that At least 33kV class of 315kVA or higher rating LT transformer(s) must have been designed, manufactured in the above Indian works, type tested (as per IEC/IS standard) including short circuit test and supplied as on the date of NOA.</p> <p>Note In case manufacturer meets the technical requirement through clause (ii) above, warranty obligations for additional warranty of two(2) years over &amp; above the warranty period as specified in the bidding documents shall be applicable for the entire quantity of the offered equipment to be supplied under the contract. Further, contractor shall furnish performance guarantee for an amount of 10% of the ex-works cost of the equipments(s)* for the additional warranty period in addition to the contract performance guarantee to be submitted by the contractor</p> <p><b>24.16 Technical Requirements for Composite Long Rod Polymer Insulator (765kV &amp; 400kV)</b></p> <p>(i) The manufacturer whose Composite Long rod Insulator are offered, must have designed, manufactured, tested and supplied Composite Long rod Insulator of 120KN or higher electro-mechanical strength for</p>
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765kV/400kV\* or higher voltage class and the same must have been in satisfactory operation# for at least two (2) years as on the date of NOA.

(ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India and not meeting the requirement stipulated in (i) above, can also be considered provided that

a) The manufacturer must have designed, manufactured, type tested and supplied Composite Long rod Insulator of 120KN or above electro-mechanical strength for 765kV/400kV\* or higher voltage class and the same must have been in satisfactory operation# as on the date of NOA.

b) Contractor shall furnish performance guarantee for an amount of 10% of the ex-works cost of the equipments(s)\* and this performance guarantee shall be in addition to the contract performance guarantee to be submitted by the contractor.

Note: In case manufacturer meets the technical requirement through clause (ii) above, warranty obligations for additional warranty of two(2) years over & above the warranty period as specified in the bidding documents shall be applicable for the entire quantity of the offered equipment to be supplied under the contract. Further, contractor shall furnish performance guarantee for an amount of 10% of the ex-works cost of the equipments(s)\* for the additional warranty period in addition to the contract performance guarantee to be submitted by the contractor

24.17

**Technical Requirements for Control, Relay & Protection System and Substation Automation System**

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The manufacturer whose Control, Relay & Protection System (Control & protection Intelligent Electronic Devices (IEDs)), and Sub-station Automation System (as applicable) are offered, must have designed, manufactured, tested, installed and commissioned Control, Relay & Protection system along with Sub-station Automation System which must have been in satisfactory operation# on (i) 400 kV system [applicable for 765kV substation] & (ii) specified voltage level or above [applicable for 400kV & below substation] for atleast two (2) years as on the date of NOA.

AND

The Manufacturer or their joint venture or subsidiary company or parent company must be a manufacturer of control and protection IEDs and must have established repair, testing and integration (at least for 4 bays) facilities for Control, Relay & Protection System and Sub-station Automation System in India.

24.18

**Technical Requirements for analog and digital PLCC panels (765kV, 400kV, 220kV & 132kV)**

(i) The manufacturer whose PLCC panels are offered, must have designed, manufactured, tested, supplied and commissioned PLCC panels for (i) 400kV system or above [applicable for 765 kV & 400 kV substation], (ii) 220 kV System or above [applicable for 220 kV Substation] & (iii) 132 kV system or above [applicable for 132 kV substation] and the same must have been in satisfactory operation# for atleast two (2) years as on the date of NOA.

(ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India and not meeting the

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requirement stipulated in (i) above, can also be considered provided that

- a) PLCC panels must have been manufactured in the above Indian works based on technological support of collaborator, type tested (as per IEC/IS standard) and supplied as on the date of NOA.
- b) collaborator shall furnish performance guarantee for an amount of 10% of the ex-works cost of such equipment(s) and this performance guarantee shall be in addition to contract performance guarantee to be submitted by the contractor.
- c) The collaborator meets the requirements stipulated in (i) above. A valid collaboration agreement for technology transfer / license to design, manufacture, test and supply PLCC panels in India, shall be submitted.

**24.19 Technical Requirement of Communication Equipment**

The SDH equipment shall be offered from a manufacturer(s) who is a “**Local Supplier**” as per DPIIT PP notification & has been Manufacturing SDH equipments for the last three (3) years and SDH equipment Manufactured by such manufacturer(s) shall have been satisfactory operation in 110kV or higher voltage Power Substations for at least two (2) years as on the date of NOA

**24.20 Technical Requirement for 400kV GIS Equipment**

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|  |  |  | <p>(i) The manufacturer whose 400kV GIS bays are offered must have designed, manufactured, type tested** (as per IEC or equivalent standard), supplied and supervised erection &amp; commissioning of at least two (2) nos. Gas Insulated Switchgear (GIS) circuit breaker bays@ of 345kV or above voltage class in one (1) Substation or Switchyard during the last seven (7) years and these bays must be in satisfactory operation# for at least two (2) years as on the date of NOA.</p> <p>(ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India and not meeting the requirement stipulated in (i) above, can also be considered provided that</p> <p>a) Atleast one no. 345kV or above voltage class GIS Circuit Breaker bay@ must have been manufactured in the above Indian works based on the technological support of the Collaborator(s) and either supplied or type tested the above CB bay (as per IEC or equivalent standard) as on the date of NOA.</p> <p>b) The collaborator(s) meets the requirements stipulated in (i) above. A valid collaboration agreement for technology transfer / license to design, manufacture, test and supply 400kV or above voltage level GIS equipment in India, shall be submitted.</p> <p>c) The Collaborator(s) shall furnish performance guarantee for an amount of 10% of the ex-works cost of such equipment(s) and this performance guarantee shall be in addition to Contract Performance Guarantee to be submitted by the bidder.</p> |
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Note :-

(\*\*) Type test reports of the collaborator/ parent company/ subsidiary company/ group company shall also be acceptable.

**24.21 Technical Requirement for 220/132/66 kV\* level GIS/Hybrid GIS/MTS Equipment:**

(i) The manufacturer whose 220/132/66 kV\* level GIS/Hybrid GIS/MTS bays are offered must have designed, manufactured, type tested\*\* (as per IEC or equivalent standard), supplied and supervised erection & commissioning of at least two (2) nos. Gas Insulated Switchgear (GIS) circuit breaker bays@ of 220/110/66kV\* or above voltage class in one (1) Substation or Switchyard during the last seven (7) years and these bays must be in satisfactory operation# for at least two (2) years as on the date of NOA.

(ii) Alternatively, the manufacturer, who have established manufacturing and testing facilities in India and not meeting the requirement stipulated in (i) above, can also be considered provided that

a) Atleast one no. 220/110/66kV\* or above voltage level GIS Circuit Breaker bay@ must have been manufactured in the above Indian works based on the technological support of the Collaborator(s) and either supplied or type tested the above GIS bay (as per IEC or equivalent standard) as on the date of NOA.

b) The collaborator(s) meets the requirements stipulated in (i) above. A valid collaboration agreement for technology transfer/license to design, manufacture,

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test and supply 220/110/66\*kV or above voltage level GIS equipment in India shall be submitted.

c) The Collaborator(s) shall furnish performance guarantee for an amount of 10 % of the ex-works cost of such equipment(s) and this performance guarantee shall be in addition to Contract Performance Guarantee to be submitted by the bidder.

Note: 1. (\*) voltage class of respective equipment as applicable

2. (@) For the purpose of technical requirement, one no. of circuit breaker bay shall be considered as a bay used for controlling a line or a transformer or a reactor or a bus section or a bus coupler and comprising of at least one circuit breaker, one disconnecter and three nos. of single phase CTs / Bushing CTs. GIS means SF6 Gas insulated Switchgear.

3. Experience with combination of GIS CB bay/Hybrid GIS CB Bay/MTS CB Bay is also acceptable if supply of only Hybrid/MTS equipment is envisaged. Hybrid GIS means outdoor SF6 Gas insulated switchgear connected to outdoor Air insulated bus-bar System (AIS bus-bars System), MTS means outdoor SF6 Gas insulated Mixed Technology Switchgear connected to outdoor AIS bus bar system. (\*\*) Type test reports of the collaborator/ parent company/ subsidiary company/ group company shall also be acceptable

4.(\*\*) Type test reports of the collaborator/ parent company/ subsidiary company/ group company shall also be acceptable