



## Annexure-I

**OIL INDIA LIMITED**  
(A Government of India Enterprise)  
P.O. Duliajan - 786602, Assam, India  
FAX: 91-0374-2800533; E-mail : [material@oilindia.in](mailto:material@oilindia.in)

A) OIL INDIA LIMITED invites Indigenous Competitive Bid (e-tenders) through its e-Procurement portal - <https://etender.srm.oilindia.in/sap/bc/gui/sap/its/bbpstart/> for following e-tender :

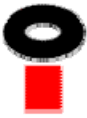
E-Tender No.	B.C Date	Material Description & Quantity
SDI3018P14 Dt: 25.03.2014 (SINGLE STAGE COMPOSITE BID SYSTEM)	22.05.2014	ELECTRICAL PMCC PANEL – 1 NOS
SDI3019P14 Dt: 25.03.2014 (SINGLE STAGE COMPOSITE BID SYSTEM)	22.05.2014	ELECTRICAL PMCC PANEL – 1 NOS
SDI3025P14 Dt: 26.03.2014 (SINGLE STAGE COMPOSITE BID SYSTEM)	22.05.2014	A/C BUNK HOUSE – 4 NOS
SDI3036P14 Dt: 27.03.2014 (SINGLE STAGE TWO BID SYSTEM)	29.05.2014	PRE FABRICATED SUBSTAION – 1 NOS

Application showing full address/email address with Tender Fee (Non-refundable) of Rs. 1,000.00 (Excepting PSUs and SSI units registered with NSIC) in favour of M/s Oil India Limited and payable at Duliajan is to be sent to Head-Materials, Oil India Limited, P.O. Duliajan, Assam-786602. Application shall be accepted one week prior to Bid Closing date. The envelope containing the application for participation should clearly indicate “REQUEST FOR ISSUE OF USER ID AND PASSWORD FOR E TENDER NO ...” for easy identification and timely issue of user ID and password. On receipt of requisite tender fee, USER\_ID and initial PASSWORD will be communicated to the bidder (through e-mail) and will be allowed to participate in the tender through OIL’s e- Procurement portal. No physical tender documents will be provided. Details of NIT can be viewed using “Guest Login” provided in the e-Procurement portal. The link to e-Procurement portal has been also provided through OIL’s web site [www.oil-india.com](http://www.oil-india.com).

**Note :**

These are press tender and parties interested to participate against these tenders shall have to purchase the tender document. PSUs and SSI units are provided tender documents Free of Cost ( as per govt guidelines), however they have to apply to OIL’s designated office to issue the tender documents before the last date of sale of tender document mentioned in the tender.

-----



**OIL INDIA LIMITED**  
(A Government of India Enterprises)  
PO : Duliajan – 786602  
Assam (India)

TELEPHONE NO. (91-374) 2808719

FAX NO: (91-374) 2800533

Email: tuhin\_roy@oilindia.in ; erp\_mm@oilindia.in

**FORWARDING LETTER**

<b>Tender No.</b>	<b>: SDI3018P14 Dt: 26.03.2014</b>
<b>Tender Fee</b>	<b>: Rs 1,000.00</b>
<b>Bid Security Amount</b>	<b>: Rs 32,500.00</b>
<b>Bidding Type</b>	<b>: SINGLE STAGE COMPOSITE BID SYSTEM</b>
<b>Bid Closing on</b>	<b>: As mentioned in the e-portal</b>
<b>Bid Opening on</b>	<b>: -do-</b>
<b>Performance Security</b>	<b>: Applicable</b>
<b>Integrity Pact</b>	<b>: Not Applicable</b>

OIL invites Bids for **Supply of 1 no Electrical PMCC Panel** through its e-Procurement site under **SINGLE STAGE COMPOSITE BID SYSTEM**. The bidding documents and other terms and conditions are available at Booklet No. MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area -> Tender Documents

The general details of tender can be viewed by opening the RFx [ Tender] under RFx and Auctions.. The details of items tendered can be **found in the Item Data and details uploaded under Technical RFX.**

**The tender will be governed by:**

- “General Terms & Conditions” for e-Procurement as per Booklet No. MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders.
- Technical specifications and Quantity as per **Annexure – 1A**.
- The prescribed Bid Forms for submission of bids are available in the Technical RFx -> External Area -> Tender Documents.
- In the event of receipt of only a single offer against the tender within B.C. date, OIL reserves the right to extend the B.C. date as deemed fit by the Company. During the extended period, the bidders who have already submitted the bids on or before the original B.C. date, shall not be permitted to revise their quotation.
- Any sum of money due and payable to the contractor (including Security Deposit refundable to them) under this or any other contract may be appropriated by Oil India Limited and set-off against any claim of Oil India Limited (or such other person or persons contracting through Oil India Limited) for payment of sum of money arising out of this

contract or under any other contract made by the contractor with Oil India Limited (or such other person or persons contracting through Oil India Limited).

- f) Bidder are advised to fill up the Technical bid check list (**Annexure EEE**) and Response sheet (**Annexure FFF**) given in MS excel format in Technical RFX -> External Area -> Tender Documents. The above filled up document to be uploaded in the **Technical RFX** Response.

**Special Note:**

**1.0 General Qualification Criteria:**

In addition to the general BRC/BEC, following criteria on Bidders' Experience and their financial capabilities shall be considered (**documentary evidence to be provided along with the bid in Technical RFX -> External Area -> Tender Documents**) as on the Bid Closing Date:

- a) Annual financial turnover of the firm in any of the last 3 financial years or current financial year should not be less than **Rs 32.45 Lakhs**.

**2.0 Application showing full address/email address with Tender Fee (Non-refundable) of Rs. 1,000.00 in favour of M/s Oil India Limited and payable at Duliajan is to be sent to Head-Materials, Oil India Limited, P.O. Duliajan, Assam-786602. Application shall be accepted only **upto** one week prior to Bid Closing date **(or as amended in e-portal)**. The envelope containing the application for participation should clearly indicate “REQUEST FOR ISSUE OF USER ID AND PASSWORD FOR E TENDER NO ...” for easy identification and timely issue of user ID and password. On receipt of requisite tender fee, USER\_ID and initial PASSWORD will be communicated to the bidder (through e-mail) and will be allowed to participate in the tender through OIL’s e- Procurement portal. No physical tender documents will be provided. Details of NIT can be viewed using “Guest Login” provided in the e-Procurement portal. The link to e-Procurement portal has been also provided through OIL’s web site [www.oil-india.com](http://www.oil-india.com).**

**NOTE:** PSUs and SSI units are provided tender documents Free of Cost (as per govt guidelines), however they have to apply to OIL's designated office to issue the tender documents before the last date of sale of tender document mentioned in the tender.

3.0 Please note that all tender forms and supporting documents are to be submitted through OIL’s e-Procurement site only except following documents which are to be submitted manually in sealed envelope super scribed with **Tender no.** and **Due date** to **Head Materials, Materials Department, Oil India Limited, Duliajan - 786602, Assam** on or before the Bid Closing Date and Time mentioned in the Tender.

- a) **Original Bid Security**
- b) **Detailed Catalogue (if any)**
- c) **Any other document required to be submitted in original as per tender requirement**

All documents submitted in physical form should be signed on all pages by the authorised signatory of the bidder and to be submitted in triplicate.

4.0 Bidders are requested to examine all instructions, forms, terms and specifications in the bid. Failure to furnish all information required as per the NIT or submission of offers not substantially responsive to the bid in every respect will be at the bidders risk and may result in rejection of its offer without seeking any clarifications.

- 5.0 Bidders must ensure that their bid is uploaded in the system before the tender closing date and time. Also, they must ensure that above documents which are to be submitted in a sealed envelope are also submitted at the above mentioned address before the bid closing date and time failing which the offer shall be rejected.
- 6.0 Bid must be submitted electronically only through OIL's e-procurement portal. Bid submitted in any other form will be rejected.
- 7.0 The tender shall be governed by the Bid Rejection & Bid Evaluation Criteria given in enclosed **Annexure-CCC**. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (as per **Annexure-CCC**) contradict the Clauses of the tender and / or "General Terms & Conditions" as per Booklet No. MM/LOCAL/E-01/2005 for E-procurement (LCB Tenders) elsewhere, those in the BEC / BRC shall prevail.
- 8.0 Please do refer the User Manual provided on the portal on the procedure How to create Response for submitting offer.

**NOTE:**

**Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the NIT terms and conditions of NIT.**

**Yours Faithfully**

**Sd-**

**(R.BARMAN)  
SR MANAGER MATERIALS (ID)  
FOR : HEAD-MATERIALS**

**BID REJECTION CRITERIA (BRC) / BID EVALUATION CRITERIA (BEC)**

The following BRC/BEC will govern the evaluation of the bids received against this tender. Bids that do not comply with stipulated BRC/BEC in full will be treated as non responsive and such bids shall prima-facie be rejected. Bid evaluation will be done only for those bids that pass through the “Bid Rejection Criteria” as stipulated in this document.

Other terms and conditions of the enquiry shall be as per General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. However, if any of the Clauses of the Bid Rejection Criteria / Bid Evaluation Criteria (BRC / BEC) contradict the Clauses of the tender or MM/LOCAL/E-01/2005 elsewhere, those in the BRC / BEC shall prevail.

<b><u>Criteria</u></b>	<b>Complied / Not Complied. (Remarks if any)</b>
<p><b>1.0 BID REJECTION CRITERIA (BRC):</b></p> <p>The bids must conform to the specifications and terms &amp; conditions given in the Bidding Documents. Bids shall be rejected in case the item(s) offered do not conform to the required parameters stipulated in the technical specifications and to the respective national standards wherever stipulated. Notwithstanding the general conformity of the bids to the stipulated specifications and terms &amp; conditions, the following requirements shall have to be particularly met by the bidders without which the offer will be considered as non-responsive and rejected. Technical:</p> <p><b>A) TECHNICAL:</b></p> <p>1.0 Bidder shall be panel manufacturer of 415 VAC switchboards/PCC panels/PMCC panels or an authorized dealer/ distributor/channel partner/ stockist of switchgear manufacturer. Bidder shall submit credentials in support of this and copy of valid authorized dealership certificate along with the offer.</p> <p>2.0 The bidder shall have experience of successfully supplying and commissioning) of at least 1 (one) no. of switchboard /PCC panel/PMCC panel to Central Govt./State Govt./ PSU in the last 5 (Five) years as on the bid closing date.</p> <p>3.0 If the bidder is manufacture, bidder shall have designed, engineered, manufactured, tested and supplied in the last 5 (Five) years as on the bid closing date, at least 1 (one) no. of switchboard/ PCC/ PMCC panel (fitted with air circuit breaker), rated minimum 415 VAC, 1000 Amps, 50 kA for 1 second. In case of authorized dealer, bidder shall submit the documentary evidence from the OEM to this effect.</p> <p>4.0 Bidder shall have type test certificates for the following tests for their designed and supplied switchboard/ PCC/ PMCC panels (fitted with air circuit breaker) as per IS: 8623 (with latest amendments) from a test house/ laboratory accredited by National Accreditation Board for testing and calibration Laboratories (NABL), India. In case of authorized dealer, bidder shall submit the documentary evidence from the OEM to this effect.</p>	

- (a) Short time current withstand test
- (b) Temperature rise test

5.0 Bidder has to agree for installation and commissioning of the PMCC panel at OIL's designated site.

Bidder shall submit documentary evidence such as copy of purchase order, completion of installation and satisfactory operation certificate and other necessary details and documents as credentials along with the offer for items 1.0, 2.0, 3.0 & 4.0 above.

## **B) COMMERCIAL:**

### **i). Bid security:**

The bid must be accompanied by Bid Security of **Rs 32,500.00** in OIL's prescribed format as Bank Guarantee or a Bank Draft/Cashier cheque in favour of OIL. The Bid Security shall be submitted manually in sealed envelope superscribed with Tender no. and Bid Closing date to Head Materials, Materials Department, Oil India Limited, Duliajan- 786602, Assam on or before the Bid Closing Date and Time mentioned in the Tender. If bid security in ORIGINAL of above mentioned amount is not received within bid closing date and time , the bid submitted through electronic form will be rejected without any further consideration. For exemption for submission of Bid Security, please refer Clause No. 8.8 of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. **The Bank Guarantee towards Bid Security shall be valid for 10 months from Bid closing date. (i.e upto 22.03.2015).**

**In case of extension of Bid Closing date against the tender where a bidder has already submitted his bid with requisite bid security validity within the original B.C. Date, such bidders will extend validity of bid security covering the extended period of the bid closing date.**

### **ii) Performance Bank Guarantee**

Successful bidder will be required to furnish a Performance Security @10% of the order value.

For exemption for submission of Performance Security, please refer Clause No. 9.12 of General Terms and Conditions vide MM/LOCAL/E-01/2005 for E-Procurement LCB Tenders. The Performance Bank Guarantee for capital nature items like plant and machinery etc. shall be valid for 12 months from the date of commissioning or 18 months from the date of despatch whichever concludes earlier. However, for consumable like chemicals, cement, tubular etc. the Performance Bank Guarantee shall be valid for 12 months from the date of dispatch.

### **iii) *The Bank Guarantee should be allowed to be encashed at all branches within India.***

- iv) Validity of the bid shall be minimum 120 days from the Bid Closing Date.
- v) The prices offered will have to be firm through delivery and not subject to variation on any account. A bid submitted with an adjustable price will be treated as non-responsive and rejected.
- vi) Bids received after the bid closing date and time will be rejected. Similarly, modifications to bids received after the bid closing date & time will not be considered.
- vii) All the Bids must be Digitally Signed using “Class 3” digital certificate with Organisation’s name (*e-commerce application*) as per Indian IT Act obtained from the licensed Certifying Authorities operating under the Root Certifying Authority of India (RCAI), Controller of Certifying Authorities (CCA) of India. The bid signed using other than “Class 3 with Organisation’s Name” digital certificate, will be rejected.
- vii) Price should be maintained in the “online price schedule” only. The price submitted other than the “online price schedule” shall not be considered.

## **2.0 BID EVALUATION CRITERIA (BEC)**

The bids conforming to the technical specifications, terms and conditions stipulated in the tender and considered to be responsive after subjecting to the Bid Rejection Criteria as well as verification of original of any or all documents/documentary evidences pertaining to BRC, will be considered for further evaluation as per the Bid Evaluation Criteria given below.

### **A) TECHNICAL:**

(i) Offers which meet the BRC requirement clauses as above shall be evaluated only.

### **B) COMMERCIAL:**

i). To evaluate the inter-se-ranking of the offers, Assam Entry Tax on purchase value will be loaded as per prevailing Govt. of Assam guidelines as applicable on bid closing date. Bidders may check this with the appropriate authority while submitting their offer.

### **NOTE:**

**Bidders should submit their bids (preferably in tabular form) explicitly mentioning compliance / non compliance to all the NIT terms and conditions of NIT.**

-----XXXX-----

**TECHNICAL SPECIFICATIONS WITH QUANTITY**

Sl. No.	Material Description	Quantity (NOS)
10	<p><b>A. General Description of Panel:</b></p> <p>a) Panel shall be single front, sheet steel clad, self supporting and floor mounted with integral base channel, cubicle type, indoor, dust and vermin protected. It shall contain copper bus bars (both horizontal main and vertical feeder) and individual motor starter/feeder panels suitable for operation from front side. Frames shall be made from suitably sized rigid framework of steel formed angles and channels. Frames shall be covered with 2 mm CRCA sheet steel. Cubicles shall have individual front doors with sturdy hinges and fitted with special non-deteriorating neoprene gasket. Similar gaskets shall be provided between all joints as required. Lifting lugs shall be provided on the top of panel.</p> <p>b) Panel shall have horizontal main busbars with alternate vertical busbar and cable alleys for proper distribution of panels.</p> <p>c) A 50 x 6mm GI strip should be provided on the backside of the panel with adequate holes (13mm dia each) with nuts, bolts and washers for making earth connections for all panels and cables. Length of GI strip shall be same as panel length. Zinc plated and passivated double earthing studs with nuts, bolts and washers shall be provided on the earthing strips.</p> <p>d) The PMCC panel shall be thoroughly cleaned and chemically pre-treated for rust/grease removal and phosphate coating in a minimum nine tank chemical treatment process. After chemical treatment, the panel shall be powder coated with epoxy resin based powder and stoved in a stoving oven. Coating (dry film) thickness shall be 50 micron minimum as per IS: 13871-2006. Finish shall be glossy.</p> <p>e) Colour of the PMCC panel shall be light grey to IS: 5 of 2007.</p> <p>f) The complete PMCC panel shall be based on a 75x40 mm channel with suitable grouting arrangement.</p> <p>g) Danger plates (415 VAC) shall be fixed on both front and rear of panel including the busbar chambers.</p> <p>h) Panel and its components shall be conforming to IS: 8623, 8828, 13947 and 12640. Protection shall be as per IP-54. Ambient-40°C (Max)/ 5°C (Min), Humidity-95% (Max).</p> <p>i) All components used must be suitable for the environment as mentioned. All hardware should be of high tensile steel &amp; galvanised/ Zinc passivated. Size of spring washers &amp; flat washers should be as per relevant IS for individual bolt.</p> <p>Limiting dimensions of the PMCC panel are 4000 mm (width) x 700 mm (depth) x 2300 mm (height). However, minor deviation can be accepted after discussion with OIL.</p>	1 NO.

## **B. Detail Description of Panel**

### **a) Incomers:**

There will be 2 (two) incomers, with 4 pole, 1000 A, 415V (Ue), 600V (Ui), 36 kA or above breaking capacity rated ACB with microprocessor based overcurrent, short-circuit and earth fault protection with distinct fault indication. The ACBs shall conform to IEC60947-2/IS 13947-2, tropicalized to Class-II (high humidity); breaking capacity minimum 36 KA at rated service voltage; the overload (long time), short circuit (short time) and earth fault current settings shall be selectable including individual time settings. Make: Merlin-Gerin/ Siemens/ ABB

All incoming and outgoing terminals of ACB shall be fitted with spreader links supplied by ACB manufacturer or brought out phase & neutral links of copper in rectangular sections with hole. Zinc passivated nut bolts with flat and spring washers for connection shall be provided for cable termination (2 nos. of 3.5x240 sq mm LT PVCA copper cable for incoming supply for each incomer). The links shall be supported on non-hygroscopic insulating bars of FRP/DMC based materials and shall be of suitable size for cable termination. The vertical distance between the center of connection hole in the links for cable connection and the bottom gland plate shall be minimum 450 mm. The Neutral link rating shall be 100% of the phase bar rating.

Detachable gland plate shall be provided which shall be suitable for fixing two nos. of cable glands of the size mentioned.

Metering/ Instrumentation for the Incomer (two sets, one set for each incomer):

- 1) 01 no.- Digital multifunction meter indicating Voltage, Current, Frequency, Power factor, Power and Energy with RS-485 capability; make-Swift-Encore/Siemens/HPL-Socomec/Merlin Gerin (Schneider)
- 2) 04 nos.- Current transformers, wire wound, 1000/5, 15 VA, Class 1 to IS: 2705; make- AE/Kappa/Siemens
- 3) 08 nos.- LED indication lamps for indication of 'Supply ON' (for R/Y/B phases), 'CB Off/CB On/Trip-OC/Trip-SC/Trip-EF'; make-Teknik/Siemens/Telemecanique/ABB
- 4) As required- Moulded HRC fuse holders with suitably rated fuse links for control circuit and instrument circuit protection; make-GE/Telemecanique/Bussman

### **b) Busbars and bus chamber**

Bus chamber shall be steel clad having front and rear bolted covers. The busbars shall consist of 1 set of hard drawn, high conductivity, TPN (neutral equally rated to phase bars), electrolytic grade, virgin copper bars rated minimum 1250 Amps, supported at sufficient intervals on non-hygroscopic, non-inflammable GRP/SMC supports. Busbars shall be rated to withstand short circuit fault currents of 50 KA for 1 second. The busbar individual phases shall be colour coded for easy identification. Main busbars shall be full length of the panel. Vertical bus bars for feeding individual starter/feeder shall be full height of the panel. Sufficient clearance shall be maintained in the bus chamber for proper cooling of the busbar. Busbar should be extensible type to facilitate future extensions.

### **c) Starter/Feeder Panels:**

The panel shall house the following motor starter/feeder panels:

- (i) 6 (six) nos. 75 kW/100 HP star/delta starter
- (ii) 4 (four) nos. 30 kW/40 HP star/delta starter
- (iii) 4 (four) nos. 15 kW/20 HP DOL starter
- (iv) 2 (two) nos. 7.5 kW/10 HP DOL starter
- (v) 4 (four) nos. 100 Amps feeders
- (vi) 4 (four) nos. 63 Amps feeders
- (vii) 1 (one) box with single phase RCBO as incomer and 12 nos. MCBs (suitably rated) for illumination and power socket outlets.

If space is available after accommodating the above, more feeders/starters of low rating (10/20 HP) may be included.

**Description of Starter/feeder panels:**

1) MCCB isolator (Isolation requirement):

Each motor starter shall be provided with one no. 415V(Ue), 600V(Ui), min. 36 kA breaking capacity, three pole MCCB fitted with inbuilt thermal overload, short-circuit releases with adjustable settings for current and with Rotary Handle operating mechanism. For feeder panels, four pole MCCB shall be used with identical capacity and type.

The MCCBs shall be operated from outside the panel. The MCCB handles shall also project outside the panel doors enabling breaker operation from outside the panel. All MCCB used shall be suitable for isolation as per IEC 947-2. Control supply of individual starters shall be tapped from its own line; the starter shall be in-operative if the MCCB is off.

2) Panel components:

Various starters and feeders shall be housed in individual cubicles. Starter components shall be mounted on sheet steel base and all apparatus shall be suitable for front removal. All starters/feeders shall have suitably rated MCCBs as incomers. For feeder/starters above and including 20 HP, MCCB incomer connection to busbars shall be through suitably rated copper bus links/spreader bars only. This is to avoid mechanical stresses that may develop during short circuit condition.

Starter panel components like MCCBs, contactors, overload relays, RCBOs etc. shall conform to IEC60947-2/IS: 13947-2 and IS: 12640. All starter/feeders shall be provided with Type II protection.

Main components of individual starter/feeder panels:

- i) Incomer MCCB (as isolator/main switch)
- ii) RCBO in the downstream of MCCB (integral to MCCB, or through separate CBCT & earth leakage relay or directly mountable fixed value (for small starters/feeders)
- iii) For starter panels only- Motor Starter magnetic contactor and adjustable thermal overload relay
- iv) Remote/ local selector switch- for facilitating remote/local starting of motor
- v) Local start/stop switch- for starting/stopping of motor from panel
- vi) Low voltage (maximum 30 V) supply system for remote pushbutton station, along with intrinsically safe barrier (with transformer type isolation) for isolating hazardous areas and non-hazardous areas (safe area), i. e., in the panel. Intrinsically safe isolators/barriers shall be in the panel itself.
- vii) For starter panels only- Ammeter (accuracy class 1.0), directly mounted

for starters below 10 HP and through CT for and above 10 HP.

viii) 'On', 'Off' and 'Overload' LED type indicating lamps

Make of MCCB/RCBO/MCB/contactor/overload relay - Merlin Gerin/  
Legrand/ ABB

Make of selector switch- Siemens/ Kaycee/ Teknik/ ABB

Make of LED - Siemens/ L&T/BCH/ Binay/ABB /Telemecanique

Important points to be considered while designing the starter/feeder panels:

i) As the panel will be installed in an oil mine, as per Central Electricity Authority Regulations 2010, the remote starting facility for motors shall be suitable for voltage below 30 Volt and intrinsically safe.

ii) MCCBs, contactors, overload relays shall preferably be of one make only. However, earth leakage relays, CBCT etc. may be of different make. CBCT and sensing earth leakage relay shall be compatible and from the same manufacturer.

iii) As far as practicable, one rating of components shall be used for a range of starters (e.g. one rating of contactors in all starters up to 20 HP). All device selection shall take motor starting current into consideration.

iv) Though TPN busbars are specified, neutral bus shall not be used. Use of neutral bus is prohibited as neutral at source (generator) will be grounded through high resistance. The requirement for neutral bus is for future use/modification only.

v) For four pole feeder MCCBs, connection from bus to incoming side shall be four wire. Also, the connection from the outgoing side of MCCB to terminal block in the cable alley shall be four wire for four pole MCCBs. For use in hazardous areas, 3 phase 3 wire connection shall be used including lighting loads (through lighting transformer). However, in case 3 phase, 4 wire supply (for neutral) is required, power from the 3 pole or 4 pole feeder will be supplied through isolation transformer (415 V/415 V, delta/star-neutral) only. Here also, the use of four pole is for future use/modification only.

3) Panel wiring:

i) All internal wiring and cabling inside the MCC starter panels shall be done with 1.1 KV grade fire retardant PVC insulated tinned copper multi-stranded flexible cables with proper lugs. All wires and cable shall have proper ferrule numbers for easy identification.

ii) Ring lugs shall be used at all critical connections such as CT connections. No more than two wires or lugs may be attached under any one screw. All control & CT wiring should be terminated on suitable TBs. All terminal strips to have minimum 2 nos. spare terminals to accommodate any modification required during commissioning / operation. All terminal strips shall be accessible for testing and troubleshooting/maintenance.

iii) All control wiring inside the panels shall be done with single core, flame retardant multi-stranded flexible copper PVC insulated (1100 V) wire, 1.5 mm<sup>2</sup> for potential circuits and 2.5 mm<sup>2</sup> for current circuits. Control wires shall be properly identified with ferrule numbers and suitably terminated with proper sized lugs; cable make- Finolex/Havells/Henley/Nicco/Reputed brand.

4) Features of the Panel:

1. The Cubicle type Panel Board shall be built on an integral base channel of

ISMC 75 x 40 section. The frame of the board shall be sufficiently strong and made of minimum 2.0 mm CRCA MS sheets. Thickness of gland plates shall be minimum 3.0 mm. Intermediate members of suitable section and size shall be provided. The panel doors shall have door latches suitable for latching in one turn only. Lifting hooks shall be provided.

2. Special non-deteriorating Neoprene rubber gaskets between all joints shall be provided as and where required.

3. All MCCB Operating handles shall be accessible for operation without opening the Panel door. The handles will be interlocked with doors, i.e., unless MCCB is in OFF position, door cannot be opened.

4. Adequate insulated barriers between the bus chamber and feeder shall be provided to achieve Form-2 separation as per IEC 439-1.

5. MCCB incoming terminals are to be provided with insulating barrier so that once the door is opened, no live part is exposed.

6. All connection links between busbar and MCCB incoming side (for feeders/starters above and including 20 HP) shall be made with rectangular section of copper bus links conforming to IS. Current rating of links shall be minimum 1.5 times (rating for unassembled sections) the switch rating. All joints shall be checked for proper contact area.

7. Wiring cables from panel to door shall be protected with heavy duty PVC spiral binding.

8. All the hardware should be of high tensile steel duly zinc passivated for corrosion protection & fitted with proper sized heavy duty spring washer & two nos. heavy duty flat washers.

9. Sufficient space should be provided for proper glanding, dressing, connecting up and maintenance of cables. Adequate space should be provided for connecting the cable leads to the terminal blocks.

10. Suitable cable supporting arrangement shall be provided inside the cable alley to firmly grip the cables connected to the terminal blocks of the outgoing feeders.

11. All hinged doors shall be earthed with copper flexible loops / braids as per IS-3043.

12. A 50 x 6mm GI strip shall be provided with adequate holes (13mm dia each) with nut, bolts and washers for making earth connections for all panels and armours/screens of cables. Length of GI strip shall be same as panel length. The panel GI strap shall have provision with fasteners for connection to external earth electrodes with suitably sized GI strap.

13. Panel length should be limited to 4.0 mtr. Height shall be suitable for operation of feeders as per ISI.

14. Suitable SS/brass material, NiCd plated single compression cable glands shall be provided in the panels. Gland sizes shall be provided by OIL during detailed engineering/drawing approval. Gland plates (3 mm thick) with suitable size knockouts shall be provided.

Important: All MCCBs should preferably be mounted vertically. Even if the MCCBs have to be mounted horizontally due to design of feeders, the door mounted handle shall have proper position same as in panels having vertically mounted MCCBs, so that there is no confusion in operating the handle. Suitable bus links/spreader bars to incoming side of MCCBs shall be provided as and where required.

**Scope of supply:**

1. Complete panel with the specifications as mentioned in the detailed

	specifications 2. Commissioning spares 3. Recommended spares with part nos. for all items 4. “As-Built” drawings (Schematic and SLD), manuals, catalogues, test report etc. after final installation and commissioning, 06 (six) copies each.	
<b>20</b>	<b>Installation, Testing &amp; Commissioning charges for item sl. no. 10</b>  <b>Scope of Installation and Commissioning:</b>  Supplier shall install and commission the PMCC panel in the designated site of OIL at Intermediate Tank Farm of OIL at Tengakhat.  Supplier shall arrange for all manpower, tools and tackles, instruments etc. necessary for installation and commissioning of the PCC panel.  Jobs: 1. Installation and fixing (including cement grouting) of the supplied panel in the shed (Shed and trench/ foundation shall be constructed by OIL) 2. Connection of the cables (supplied by OIL) to the incomer ACBs 3. Energization of the panel (from the feeder at Tengakhat control room) and testing of the panels- no load condition 4. Testing of the above panels in full load condition, including simulation of faults, with available loads 5. Submission of testing and commissioning report	<b>1 NO.</b>

----- X -----

### **SPECIAL NOTES:**

#### **A. Drawings and Documents:**

1.0 The following documents are required to be submitted with the offer.

- i. Confirmation that the offered board shall conform to all the points of the tender. Any deviation from the tender specs must be clearly mentioned with technical justifications. In case of an order on the party complete tender specs and the deviations accepted by OIL in writing shall only be mentioned in the order.
- ii. Copy of test certificate for busbar rated 1000 Amps or above for fault level of 50 kA for 1 second from CPRI or any govt. approved NABL accredited test laboratory.
- iii. Copy of test certificate for busbar rated 1000 Amps or above for temperature rise from CPRI or any govt. approved NABL accredited test laboratory.
- iv. Copy of test certificate for panels with Degree of Protection IP: 54 from CPRI or any govt. approved NABL accredited test laboratory
- v. Indicative general arrangement and layout drawing of the panel
- vi. Indicative schematic and single line diagram of the panel
- vii. Quality Management Certification ISO : 9001 # 2008 version for Design, manufacture, installation and servicing of medium voltage Electrical control and distribution panels.
- viii. Credentials of bidder having minimum 10 years (till the bid closing date) experience in design, fabrication and testing of LT PMCC Electrical Panels. During these years bidder must have manufactured and supplied minimum 3 nos. of panels to Govt./semi-govt/PSUs. These panels must be in operation satisfactorily as on date.
- ix. Credentials of Bidder having minimum nine tank anti rust treatment system and powder coating facility for treatment and painting of sheet metal works for durability.

Tank sequence: degreasing, water rinse, de-rusting, water rinse, water rinse, activation, phosphating, water rinse, passivation.

- x. Indicative bill of materials with spares list and prices of spares
- xi. Filled up technical check list

2.0 Detail foundation drawing, drawing of panel showing termination details, full wiring diagram, component layout diagram and complete bill of material must be submitted to OIL for approval within 30 days after placement of the order. OIL shall modify/correct drawings as necessary. The manufacture of panel shall start only after approval of the drawings by OIL. In case of an order on the party complete tender specs. and the deviations accepted by OIL in writing only shall be mentioned in the order.

3.0 Six spiral bound sets of the following documents, drawings and literatures are to be supplied with the Board:

- i. General arrangement, foundation, schematic diagram and wiring diagrams (“as built”)
- ii. Works Test report containing result of tests done at factory during inspection
- iii. Guarantee Certificate
- iv. Technical Catalogue of Air circuit breakers, Moulded Case Circuit Breakers, starter components and Digital Meters
- v. Bill of Materials with Part description and details

**B. Guarantee:** The LT panel and all parts must be guaranteed with all its components for a period of 12 months after commissioning. Party will arrange for repair/ replacement, as required by OIL, of defective parts within one month of reporting of the failure by OIL. This will be at no extra cost to OIL.

**C. Testing and Inspection:**

Panel shall be duly tested as per IS: 8623 at manufacturer’s works and routine test certificate shall be submitted at the time of pre-despatch inspection.

In addition to the routine tests, OIL representative shall carry out pre-despatch inspection of the panel and witness all necessary testing at manufacturer’s works. Bidders shall separately quote charges towards inspection and witness test, if any. [To and fro charges of OIL’s personnel to manufacturer’s works will be to OIL’s account].

Panel shall be tested as per the following details for witness testing by OIL’s representative:

- (i) Accuracy of dimensions & circuitry as per approved drawings. Joints of busbar and links shall be checked for proper contact area.
- (ii) Inspection of the assembly including inspection of wiring and mechanical/electrical operation of components and starters/feeders
- (iii) Dielectric (insulation) tests
- (iv) Checking of protective measures and of the electrical continuity of the protective circuit
- (v) Secondary Injection test for Incomer breakers

Any alteration/modification requirements pointed out during the inspection shall be carried out by the manufacturer at no extra cost to OIL and confirmed before dispatch, without which dispatch clearance shall not be given. In case routine test parameters are found to be outside acceptable values, modifications shall be carried out and routine tests on the panel shall again be performed with no extra cost to OIL.

Copies of the test certificates along with bound copies of complete test results (after acceptance) shall be submitted for approval of OIL prior to dispatch of the PMCC.

**D. General Notes:**

1. Material should be adequately packed to avoid damage and ingress of water during transit. OIL's PO no. and date shall be embossed/engraved on the panel.
2. Panel shall be guaranteed for 12 months from the date of commissioning.
3. All items of the offered panel must be as per IS / IEC (with latest amendments).
4. All feeders shall have engraved designation nameplates. Details of Feeder designation shall be provided by OIL at the time of approval of drawing.
5. Works Test Certificate for routine tests as per IS: 8623 (with calibrated testing equipment) and wiring diagrams shall be submitted to OIL at the time of pre-despatch inspection. Manufacturer's Routine Test certificate of incomer breakers is also to be furnished at the same time.

-----X-----

## TECHNICAL CHECK LIST

The check list must be completed and returned with the offer with bidder's comment as per format detailed below. Bidder is to ensure that all the following points are covered in the offer. This will ensure proper evaluation of the offer.

- | Sl. No. | Points Remarks (Yes/No/Agree)   |
|---------|---|
| 1)      | Are you a panel manufacturer of 415 VAC switchboards/PCC panels/PMCC panels and also an authorized dealer/ distributor/channel partner/stockiest of switchgear manufacturer? Bidder shall submit credentials in support of this and copy of valid authorized dealership certificate along with the offer.       |
| 2)      | Have you submitted credentials for having successfully supplied and commissioned at least 1 (one) no. of switchboard /PCC panel/PMCC panel to Central Govt./State Govt./ PSU in the last 5 (five) years as on bid closing date?   |
| 3)      | Have you submitted credentials for having successfully designed, engineered, manufactured, tested and supplied in the last 5 (five) years (till bid closing date), at least 1 (one) set of switchboard/ PCC/ PMCC panel (fitted with air circuit breaker) rated minimum 415 VAC, 1000 Amps, 50 kA for 1 second? |
| 4)      | Have you submitted type test certificates as per BRC Clause (4.0)?  |
| 5)      | Do you agree for installation and commissioning of the PMCC panel at OIL's designated site at Tengakhat ITF?  |
| 6)      | Have you quoted commissioning charges separately?   |
| 7)      | Have you submitted indicative list of spares with prices? <b>Note that prices will not be used for evaluation of offer.</b>   |
| 8)      | Have you submitted full technical specifications for the PMCC and accessories, indicative dimensional/GA and layout drawings of PMCC, indicative wiring diagram, Bill of Materials and datasheets of all the components used in the PMCC along with the quotation?  |
| 9)      | Have you submitted credentials in support of having nine Tank Chemical Treatment Plant?   |
| 10)     | Do you agree to supply all the commissioning spares?  |
| 11)     | Do you agree for pre-despatch inspection? Please note that routine test certificates etc. are to be submitted at the time of final inspection, failing which dispatch clearance will not be given.  |
| 12)     | Have you offered guarantee for 12 (twelve) months from the date of commissioning for the offered PCC?   |
| 13)     | Have you mentioned any deviations or other items/ points not indicated /included in the specifications but deemed necessary for design, Installation and commissioning, efficient control and operation of the PCC?   |

**Bidders Response Sheet****Annexure-FFF**

<b>Tender No.</b>	
<b>Bidders Name</b>	

<b>Sl No.</b>	<b>Description</b>	<b>Remarks</b>
1	Name of Bidder	
2	Whether tender document purchased from OIL's offices.	
3	Place of Despatch	
4	Whether Freight charges have been included in your quoted prices	
5	Whether Insurance charges have been included in your quoted prices	
6	Make of quoted Product	
7	Offered Validity of Bid as per NIT	
8	Delivery Period in weeks from placement of order	
9	Complied to Standard Payment Terms of OIL or not.	
10	Bid Security Submitted (if applicable)	
11	Details of Bid Security Submitted to OIL (if applicable)	
	a) Bid Security Amount (In Rs):	
	b) Bid Security Valid upto:	
	c) Name and Full Address of Issuing Bank:	
12	Confirm that the Bid Security submitted (In case of Bank Guarantee) is in toto as per format provided in the tender.	
13	Bid Security if Not submitted reasons thereof	
14	Whether you shall submit Performance Security in the event of placement of order on you (if applicable)	
15	Integrity Pact Submitted (if applicable)	
16	Confirm that the Integrity Pact submitted is in toto as per format provided in the tender.	
17	Whether submitted documents in support of General Qualification criteria of NIT	
18	If bidder is Small scale unit whether you have quoted your own product	
19	If bidder is Small scale unit whether you are eligible for purchase preference (as per Govt guideliness)	
20	Whether filled up the bank details for online payment as per Annexure GGG	

NOTE: Please fill up the greyed cells only.

**Technical Bid Checklist**

**Annexure-EEE**

<b>Tender No.</b>			
<b>Bidder's Name :</b>			
		<b>Compliance by Bidder</b>	
<b>SL. NO.</b>	<b>BEC / TENDER REQUIREMENTS</b>	Indicate 'Confirmed' / 'Not Confirmed' / Not applicable	Indicate Corresponding page ref. of unpriced bid or Comments
1	<b>Bidder to confirm that he has not taken any exception/deviations to the bid document .</b>		
2	<b>Confirm that the product offered strictly conform to the technical specifications.</b>		
3	<b>Confirm that the Offer has been made with Bid Bond / Bank Guarantee / Earnest Money along with the offer (Wherever Applicable) ?</b>		
4	<b>Confirm unconditional validity of the bid for 120 days from the date of opening of techno-commercial bid.</b>		
5	<b>Confirm that the prices offered are firm and / or without any qualifications?</b>		
6	<b>Confirm that all relevant fields in the on-line bidding format been filled in by the bidders for the items quoted by them.</b>		
7	<b>Confirm that the the price bid is in conformity with OIL's online bidding format ?</b>		
8	<b>Confirm that the Bid comply with all the terms &amp; conditions ?</b>		
9	<b>Confirm that the offers and all attached documents are digitally signed using digital signatures issued by an acceptable Certifying Authority (CA) as per Indian IT Act 2000.</b>		
10	<b>CONFIRM THAT YOU HAVE SUBMITTED THE DULY SIGNED INTEGRITY PACT DOCUMENT (Wherever Applicable)</b>		
11	<b>CONFIRM THAT YOU HAVE SHALL SUBMIT PERFORMANCE BANK GUARANTEE AS PER NIT IN THE EVENT OF PLACEMENT OF ORDER ON YOU (Wherever Applicable)</b>		
12	<b>CONFIRM THAT YOU HAVE SUBMITTED DOCUMENTS AS PER GENERAL QUALIFICATION CRITERIA</b>		

NOTE: Please fill up the greyed cells only.

**(TO BE FILLED UP BY ALL THE VENDOR IN THEIR OWN LETER HEAD)  
(ALL FIELDS ARE MANDATORY)**

**Tender No.** :.....  
**Name of Beneficiary** :M/s.....  
**Vendor Code** :.....  
**Address** :.....  
:.....  
**Phone No. (Land Line)** :.....  
**Mobile No.** :.....  
**E-mail address** :.....  
**Bank Account No. (Minimum  
Eleven Digit No.)** :.....  
**Bank Name** :.....  
**Branch** :.....  
**Complete Address of your  
Bank** :.....  
**IFSC Code of your Bank**  
    **a) RTGS** :.....  
    **b) NEFT** :.....  
**PAN** :.....  
**VAT Registration No.** :.....  
**CST Registration No.** :.....  
**Service Tax Registration No.** :.....  
**Provident Fund Registration** :.....

**I/We confirm and agree that all payments due to me/us from Oil India Limited can be remitted to our above mentioned account directly and we shall not hold Oil India Limited responsible if the amount due from Oil India Limited is remitted to wrong account due to incorrect details furnished by us.**

**Office Seal**

.....  
**Signature of Vendor**

**Counter Signed by Banker:  
Seal of Bank:**

**Enclosure: Self attested photocopies of the following documents-**

- 1) PAN Card**
- 2) VAT Registration Certificate**
- 3) Service Tax Registration**
- 4) CST Registration**
- 5) Provident Registration Certificate**
- 6) Cancelled cheque of the bank account mentioned above (in original).**
- 7) Bank Statement not older than 15 days on the date of submission.**