



भारतीय रिज़र्व बैंक-मुंबई क्षेत्रीय कार्यालय
संपदा कक्ष, बी के सी
निविदा की अनुसूची

नालंदा आवासीय परिसर, चेंबूर" में सोलर ऑप्टिमाइज़र या माइक्रो-इन्वर्टर के साथ ग्रिड इंटरएक्टिव एसपीवी आधारित 40 किलोवाट सौर ऊर्जा संयंत्र (एसपीपी) (बिफेशियल मोनो पीईआरसी) के डिजाइन, आपूर्ति, स्थापना, परीक्षण और प्रवर्तन (डीएसआईटीसी)

1. भारतीय रिज़र्व बैंक, "नालंदा आवासीय परिसर, चेंबूर में सोलर ऑप्टिमाइज़र या माइक्रो-इन्वर्टर के साथ ग्रिड इंटरएक्टिव एसपीवी आधारित 40 किलोवाट सौर ऊर्जा संयंत्र (एसपीपी) (बिफेशियल मोनो पीईआरसी) के डिजाइन, आपूर्ति, स्थापना, परीक्षण और प्रवर्तन (डीएसआईटीसी)" के लिए पात्र बोलीदाताओं से निर्दिष्ट पूर्व-योग्यता मानदंडों के अनुसार प्रतिस्पर्धी ई-निविदाएं/ई-बोली आमंत्रित करता है। इस कार्य की अनुमानित लागत ₹31.25 लाख है और अनुबंध की अवधि कार्य आदेश के 14वें दिन से 12 सप्ताह होगी।

2. बयाना राशि जमा (ईएमडी), डिमांड ड्राफ्ट या एनईएफटी के रूप में जमा की जाएगी। डिमांड ड्राफ्ट या बैंक गारंटी को सीलबंद लिफाफे में क्षेत्रीय निदेशक, भारतीय रिज़र्व बैंक, संपदा कक्ष, बांद्रा कुर्ला कॉम्प्लेक्स, मुंबई - 400051 को नाम से संबोधित करके जमा किया जाना चाहिए कि यह सी7, तीसरी मंजिल, संपदा कक्ष, बांद्रा कुर्ला कॉम्प्लेक्स, भारतीय रिज़र्व बैंक, मुंबई- 400051 पर 04 सितम्बर 2024 को दोपहर 12.00 बजे तक पहुंच जाए, जिस पर "नालंदा आवासीय परिसर, चेंबूर में सोलर ऑप्टिमाइज़र या माइक्रो-इन्वर्टर के साथ ग्रिड इंटरएक्टिव एसपीवी आधारित 40 किलोवाट सौर ऊर्जा संयंत्र (एसपीपी) (बिफेशियल मोनो पीईआरसी) के डिजाइन, आपूर्ति, स्थापना, परीक्षण और प्रवर्तन (डीएसआईटीसी) के लिए ईएमडी" लिखा हो। ऑनलाइन निविदाएं सभी फर्मों द्वारा 04 सितम्बर 2024 को दोपहर 03:00 बजे तक देखने/डाउनलोड करने के लिए उपलब्ध रहेंगी।

3. इच्छुक बोलीदाता को सभी पूर्व-योग्यता दस्तावेज, एमएसटीसी पोर्टल पर निविदा भाग-I के साथ 04 सितम्बर 2024 को अपराह्न 3:00 बजे तक या उससे पहले अपलोड करने होंगे। बैंक द्वारा इसकी जांच की जाएगी और पात्र प्रतिभागियों को तदनुसार सूचित किया जाएगा।

4. जो फर्म निम्नलिखित पूर्व-योग्यता मानदंडों का अनुपालन नहीं करती हैं और/या ईएमडी जमा नहीं करती हैं, उनके निविदा भाग-II (मूल्य बोली) को खोलने पर विचार नहीं किया जाएगा:

ए. इच्छुक बोलीदाता के पास ग्रिड इंटरएक्टिव एसपीवी आधारित सौर ऊर्जा संयंत्र (एसपीपी) के डिजाइन, आपूर्ति, स्थापना, परीक्षण और कमीशनिंग (डीएसआईटीसी) जैसे समान प्रकृति के कार्यों को करने में कम से कम 5 वर्ष का अनुभव होना चाहिए। समान कार्य* 30 जून, 2019 को या उससे पहले पूरा होना चाहिए।

ख. इच्छुक बोलीदाता ने 30 जून 2024 को समाप्त होने वाले पिछले पांच वर्षों के दौरान ग्रिड इंटरएक्टिव एसपीवी आधारित सौर ऊर्जा संयंत्र (एसपीपी) के डिजाइन, आपूर्ति, स्थापना, परीक्षण और कमीशनिंग (डीएसआईटीसी) को सफलतापूर्वक निष्पादित किया होगा:

(क) तीन कार्य जिनमें से प्रत्येक की लागत 31.25 लाख रुपये के 40% से कम न हो

या

(ख) दो कार्य जिनमें से प्रत्येक की लागत 31.25 लाख रुपये के 50% से कम न हो

या

(ग) एक कार्य जिसकी लागत 31.25 लाख रुपये के 80% से कम न हो

ग. 31 मार्च 2024 को समाप्त होने वाले पिछले 3 वित्तीय वर्षों के दौरान न्यूनतम वार्षिक कारोबार 31.25 लाख रुपये का 100% होना चाहिए, जो लेखापरीक्षित वित्तीय विवरणों द्वारा समर्थित हो।

घ. कार्य की अनुमानित लागत के लिए आवेदक के बैंकर द्वारा जारी शोधक्षमता प्रमाणपत्र प्रस्तुत करना चाहिए।

*समान कार्यों से तात्पर्य है - ग्रिड इंटरएक्टिव एसपीवी आधारित सौर ऊर्जा प्रणाली के डिजाइन, आपूर्ति, स्थापना, परीक्षण और कमीशनिंग के कार्य।

5. उपर्युक्त के अतिरिक्त, इच्छुक बोलीदाताओं को बैंक की जांच के लिए पीक्यू पेपर्स के साथ निम्नलिखित विवरण और सहायक दस्तावेज भी प्रस्तुत करने होंगे:

(ए)	फर्म की संरचना	फर्म की संरचना का पूर्ण विवरण विस्तार से (ठेकेदार एक व्यक्ति है या की साझेदार फर्म या कंपनी आदि), साझेदारों के नाम एवं पते के साथ, संस्था के अंतर्नियम / मुख्तारनामा / अन्य प्रासंगिक लेखों की प्रति के साथ जमा किया जाना चाहिए
(बी)	कार्य अनुभव या समान प्रकार के विनिर्दिष्ट अवधि के दौरान निर्दिष्ट मूल्य के समान कार्य पूर्ण करने का ब्योरा	योग्यता प्रमाण के रूप में कार्य आदेश की प्रतियां जिनमें कार्य आदेश की तिथि, प्रदान किए गए कार्य का मूल्य, कार्य पूरा करने के लिए दिया गया समय आदि की विस्तृत जानकारी हो एवं संबंधित पूर्णता प्रमाण पत्र जो काम समाप्त होने की वास्तविक तिथि, समान कार्यों के निष्पादन का वास्तविक मूल्य दर्शाते हों उन्हें कार्य अनुभव के प्रमाण के रूप में संलग्न किया जाना चाहिए भारतीय रिज़र्व बैंक के लिए पूर्व में किसी भी केंद्र पर किए गए कार्य अनुभव का दस्तावेजी साक्ष्य के साथ विवरण दिया जाना चाहिए।
(सी)	टर्नओवर	पिछले तीन वित्तीय वर्षों अर्थात् 2021-22, 2022-23 और 2023-24 के लिए लेखापरीक्षित वित्तीय विवरण, साथ ही इन वित्तीय वर्षों के लिए टर्नओवर को दर्शाने वाला चार्टर्ड अकाउंटेंट का प्रमाण पत्र।
(डी)	विनिर्दिष्ट अवधि के दौरान ठेकेदार की	ठेकेदार द्वारा उनके पीछले तीन वित्त वर्षों के कुल कारोबार और ऋण पात्रता के प्रमाण के रूप में एक चार्टर्ड एकाउंटेंट द्वारा विधिवत प्रमाणित आयकर निकासी प्रमाण पत्र / आयकर निर्धारण आदेश की प्रतियां

	ऋण पात्रता और उनका कुल कारोबार	एवं व्यवसाय के नवीनतम अंतिम खातों का ब्योरा संलग्न किया जाना चाहिए।
(इ)	बैंकरो और उनके वर्तमान संपर्क अधिकारियों के नाम और पते	ठेकेदारों के बैंकरो के नाम और पते के साथ-साथ उनके संपर्क अधिकारियों (अर्थात वे व्यक्ति जिनके बैंकरो से जरूरत पड़ने पर बैंक द्वारा उनके कार्यालय में संपर्क किया जा सकता हो) के बारे में पूर्ण विवरण जैसे की नाम, डाक पता, ई-मेल आईडी, टेलीफोन (लैंडलाइन और मोबाइल) नंबर, फैक्स नं आदि के बारे में लिखित जानकारी दी जानी चाहिए
(एफ)	बैंक खातों का विवरण	बैंक खातों का पूर्ण विवरण जैसे की खाता संख्या, प्रकार, खोले जाने की तिथि आदि दिया जाना चाहिए
(जी)	ग्राहकों और उनके वर्तमान संपर्क अधिकारियों के नाम और पते।	ग्राहकों के नाम और पते के साथ-साथ उनके संपर्क अधिकारियों (अर्थात वे व्यक्ति जिनसे जरूरत पड़ने पर बैंक द्वारा उनके ग्राहकों के कार्यालय में संपर्क किया जा सकता हो) के बारे में पूर्ण विवरण जैसे की नाम, डाक पता, ई-मेल आईडी, टेलीफोन (लैंडलाइन और मोबाइल) नंबर, फैक्स नं आदि के बारे में लिखित जानकारी दी जानी चाहिए
(एच)	पूर्ण किए गए कार्यों का विवरण	प्रत्येक ग्राहक के साथ हुए काम का विवरण जिसमें किए गए कार्य का नाम, कार्य क्रियान्वयन का साल, कार्य की निष्पादित की गई और वास्तविक लागत, अनुबंधों में निर्धारित पूरा होने का समय और कार्य को पूरा करने में लगने वाला वास्तविक समय, उन अधिकारियों/प्राधिकारियों/विभागों के नाम और पूर्ण संपर्क-विवरण, जिनके अधीन कार्य निष्पादित किया गया था, प्रस्तुत किया जाना चाहिए।
(आई)	सेवा सेटअप का विवरण	निर्दिष्ट कार्य के लिए पूर्ण सेवा सेटअप मुंबई या निकटवर्ती शहर/स्थान पर उपलब्ध होना चाहिए, जहां से अपेक्षित गुणवत्ता वाली बिक्री के बाद सेवाएं नियमित रूप से प्रदान की जा सकें।
(जे)	पंजीकरण का विवरण और पंजीकरण प्रमाणपत्र/दस्तावेजों की प्रतियां	पैन जीएसटी श्रम आयुक्त कार्यालय, यदि लागू हो

6. इच्छुक निविदाकार के बैंक को संतुष्ट करने में विफल रहने की स्थिति में, बैंक के पास उनकी भागीदारी से इनकार करने/उनकी निविदा को अस्वीकार करने का अधिकार सुरक्षित है।

7. इच्छुक बोलीदाताओं की बोली – पूर्व बैठक (ऑफ-लाइन मोड) 23 अगस्त 2024 को सुबह 11 बजे संपदा कक्ष, बीकेसी, भारतीय रिजर्व बैंक, मुंबई में आयोजित की जाएगी। बोलीदाताओं को सलाह दी जाती है कि वे निविदा का अवलोकन करें तथा साइट पर जाएं और स्पष्टीकरण की आवश्यकता वाले किसी भी मामले को पूर्व-बोली बैठक के पिछले कार्य दिवस को शाम 5:00 बजे तक estatecellbkc@rbi.org.in पर ईमेल द्वारा आरबीआई को प्रस्तुत करें। विधिवत भरे गए टेंडर दस्तावेज़ MSTC साइट पर 04 सितम्बर 2024 को

दोपहर 3:00 बजे तक अपलोड किए जाने चाहिए। बोली – पूर्व बैठक के बाद किसी भी अन्य स्पष्टीकरण/प्रश्न पर विचार नहीं किया जाएगा।

8. (क) निविदा प्रपत्र www.mstcecommerce.com वेबसाइट से 26 जुलाई 2024 से शाम 5:00 बजे से डाउनलोड करके देखे जा सकते हैं।

(ख) ₹62,500/- (बासठ हजार पांच सौ रुपये मात्र) की ईएमडी, एनईएफटी या अनुसूचित बैंक द्वारा जारी डीडी या बैंक गारंटी के रूप में 04 सितम्बर 2024 को दोपहर 12.00 बजे या उससे पहले जमा करानी होगी।

(ग) निविदाकर्ता निविदा में उल्लिखित सभी जानकारी और दस्तावेज जमा करेंगे।

जांच के बाद, यदि कोई भी बोलीकर्ता आवश्यक पात्रता नहीं रखता है, तो बैंक द्वारा उनकी निविदाएं आगे की प्रक्रिया के लिए स्वीकार नहीं की जाएंगी।

9. निविदा का भाग I 04 सितम्बर 2024 को दोपहर 03.30 बजे बोलीदाताओं के अधिकृत प्रतिनिधियों (जो उपस्थित होना चाहते हैं) की उपस्थिति में ऑनलाइन खोला जाएगा। भाग-II (मूल्य बोली) पात्र बोलीदाताओं के लिए बाद की तारीख को खोली जाएगी, जिसकी सूचना पात्र बोलीदाताओं को पहले से दी जाएगी।

10. आवेदकों/निविदाकर्ताओं को नीचे दिए गए दस्तावेज भी अपलोड करने होंगे:

a. निविदा में दिए गए प्रारूप के अनुसार क्लाइंट का प्रमाण पत्र, उनके ग्राहकों से जिनके लिए उन्होंने इस नोटिस में बताए गए पात्रता (पूर्व-योग्यता) मानदंडों के अनुसार "पात्र कार्य" किए हैं।

b. निविदा में दिए गए प्रारूप के अनुसार बैंकर का प्रमाण पत्र, उनके बैंकर/बैंकरों से

क्लाइंट का प्रमाण पत्र तभी स्वीकार किया जाएगा जब उस पर किसी सरकारी/अर्धसरकारी संगठन या पीएसयू के मामले में कार्यकारी अभियंता/अधीक्षक अभियंता या समकक्ष रैंक के अधिकारी द्वारा हस्ताक्षर किए गए हों और तभी जब वे ठेकेदार द्वारा किए गए काम के लिए प्राप्त भुगतान के पर्याप्त सबूत द्वारा समर्थित हों। निजी संगठनों द्वारा जारी क्लाइंट के प्रमाण पत्र के साथ स्रोत पर कर कटौती (टीडीएस) प्रमाण पत्र भी होना चाहिए। उपरोक्त प्रमाण पत्रों के बिना अपलोड किए गए आवेदन/निविदाएं अस्वीकार की जा सकती हैं। बैंक को इन प्रमाण पत्रों को स्वतंत्र रूप से सत्यापित करने का अधिकार होगा।

बैंक निविदाओं की प्रक्रिया करने और निविदाओं की मूल्य बोली खोलने से पहले उक्त रिपोर्टों का मूल्यांकन करेगा। यदि किसी बोलीदाता के पास किसी भी समय निविदा प्रक्रिया में भाग लेने के लिए आवश्यक योग्यता नहीं पाई जाती है और/या उसके ग्राहकों और/या उसके बैंकरों से प्राप्त उसकी कार्यनिष्पादन रिपोर्ट असंतोषजनक पाई जाती है, तो बैंक निविदा के भाग-I के खुलने के बाद भी उसके प्रस्ताव को अस्वीकार करने का अधिकार सुरक्षित रखता है। ऐसा करने के लिए बैंक कोई कारण बताने के लिए बाध्य नहीं है।

11. भविष्य में निविदा में कोई भी संशोधन / शुद्धिपत्र, यदि कोई हो, केवल आरबीआई वेबसाइट और एमएसटीसी वेबसाइट पर अधिसूचित किया जाएगा।

12. बैंक न्यूनतम निविदा को स्वीकार करने के लिए बाध्य नहीं है और किसी भी निविदा को पूर्ण या आंशिक रूप से स्वीकार करने का अधिकार सुरक्षित रखता है। बैंक बिना कोई कारण बताए किसी भी या सभी निविदाओं को अस्वीकार करने का अधिकार सुरक्षित रखता है।

निविदा की अनुसूची (एसओटी)

a. ई-निविदा नं.	RBI/Mumbai Regional Office/Estate/45/23-24/ET/629
b. निविदा का माध्यम	ई-खरीददारी प्रणाली- (ऑनलाइन भाग I – टेक्नो वाणिज्यिक बोली एवं भाग II कीमत बोली (www.mstcecommerce.com/eprocn) के माध्यम से। निविदा में भाग लेने के लिए कृपया एमएसटीसी पोर्टल पर पंजीकरण करें।
c. पार्टियों द्वारा डाउनलोड हेतु NIT उपलब्ध होने की तारीख (निविदा दिखने का समय)	26 जुलाई 2024 (शुक्रवार) शाम 05:00 बजे से
d. www.mstcecommerce.com/eprocn पर ऑनलाइन टेक्नो वाणिज्यिक बोली एवं कीमत बोली प्रस्तुत करने हेतु ई-निविदा के प्रारम्भ होने की तिथि	26 जुलाई 2024 (शुक्रवार) शाम 05:00 बजे से
e. बोली पूर्व बैठक	ऑफ़लाइन 23 अगस्त 2024 (शुक्रवार) को प्रातः 11.00 बजे सी-7, तीसरी मंजिल, सम्पदा कक्ष बीकेसी, भारतीय रिजर्व बैंक, बीकेसी कार्यालय, मुंबई- 400051 में

f. बयाना जमा राशि	<p>₹62,500/- (बासठ हजार पांच सौ रुपये मात्र) एनईएफटी या डीडी या बैंक गारंटी के रूप में भारतीय रिजर्व बैंक, मुंबई के पक्ष में।</p> <p>डीडी या बैंक गारंटी को सीलबंद लिफाफे में क्षेत्रीय निदेशक, सम्पदा कक्ष, बांद्रा कुर्ला कॉम्प्लेक्स, सी-7, तीसरी मंजिल, भारतीय रिजर्व बैंक, बीकेसी, मुंबई-400051 को संबोधित करते हुए प्रस्तुत किया जाए ताकि यह सम्पदा कक्ष, बांद्रा कुर्ला संकुल सी -7, तीसरी मंजिल, मुंबई -400051 तक पहुंच सके।</p> <p>एनईएफटी विवरण</p> <ul style="list-style-type: none"> • लाभार्थी का नाम- भारतीय रिजर्व बैंक • खाता नं. – 04861436223 • IFSC कोड – RBIS0MBPA04 (पांचवां अंक और अंतिम से दूसरा अंक शून्य है). <p>बयाना जमा राशि (ईएमडी) जमा करने का प्रमाण हमें निम्नलिखित ईमेल आईडी पर ई-मेल करें: surajksingh@rbi.org.in / estatecellbkc@rbi.org.in</p>
g. बयाना राशि जमा करने की अंतिम तिथि	04 सितम्बर 2024 (बुधवार) दोपहर 12.00 बजे तक
<p>h. पूर्व योग्यता (पीक्यू) दस्तावेज जमा करने की अंतिम तिथि;</p> <p>निविदा भाग-I के साथ एमएसटीसी पोर्टल पर अपलोड किया जाना है</p>	<p>04 सितम्बर 2024 (बुधवार) को अपराह्न 03:00 बजे</p> <p>केवल उन्हीं निविदाकारों के पूर्व-योग्यता दस्तावेजों की जांच की जाएगी, जिन्होंने नियत तारीख/समय के भीतर ईएमडी राशि जमा कर दी है। काम के लिए उनकी पात्रता या अन्यथा तय करने से पहले दस्तावेजों की कमी, यदि कोई हो, के लिए केवल ऐसे विक्रेताओं के साथ पत्राचार किया जाएगा।</p>
i. ऑनलाइन टेक्नो वाणिज्यिक बोली एवं कीमत बोली प्रस्तुत करने की अंतिम दिनांक	04 सितम्बर 2024 (बुधवार) को अपराह्न 03:00 बजे
j. भाग-I को खोलने की तिथि व समय (टेक्नो वाणिज्यिक बोली)	<p>04 सितम्बर 2024 (बुधवार) को; 03:30 अपराह्न से</p> <p>निविदा भाग-I खोलने का स्थान: संपदा कक्ष, बीकेसी, सी-7 तीसरी मंजिल, भारतीय रिजर्व बैंक बीकेसी, मुंबई-400051</p>
k. भाग-II खोलने की तिथि और समय (अर्थात् मूल्य बोली)	पात्र बोलीदाताओं को तिथि की सूचना बाद में दी जाएगी

I. लेनदेन शुल्क	<p>₹1,562.50/- लागू जीएसटी को छोड़कर।</p> <p>एमएसटीसी भुगतान गेटवे/एनईएफटी/आरटीजीएस के माध्यम से एमएसटीसी लिमिटेड के पक्ष में लेनदेन शुल्क का भुगतान</p>
-----------------	--



Reserve Bank of India
Estate Cell
Bandra Kurla Complex
Mumbai

E - Tender For

Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

Part –I

Name of the Tenderer: _____

Address: _____

Date of pre-bid meeting: 11:00 AM on August 23, 2024 at C-7, 3rd Floor, Estate Cell,
Reserve Bank of India, Bandra (E) - 400051

Due date and time for submission of tender: 03:00 PM on September 04, 2024

This document is the property of Reserve Bank of India (RBI). It may not be copied, distributed or recorded on any medium, electronic or otherwise, without the RBI's written permission thereof, except for the purpose of responding to RBI for the said purpose. The use of the contents of this document, even by the authorized personnel / Agencies for any purpose other than the purpose specified herein, is strictly prohibited and shall amount to copyright violation and thus, shall be punishable under the Indian Law.



Reserve Bank of India
Estate Cell
Bandra Kurla Complex
Mumbai

Notice inviting e-Tender

Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

1. Reserve Bank of India invites competitive e-tenders/ e-bids for Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur from eligible bidders as per the specified pre-qualification criteria. The work is estimated to cost of ₹ 31.25 Lakhs and the contract duration shall be 12 weeks from the 14th day of work order.
2. The Earnest Money Deposit (EMD) shall be submitted in the form of Demand Draft or NEFT or Bank Guarantee. The Demand Draft or Bank Guarantee shall be submitted in sealed cover addressed by name to Regional Director, Reserve Bank of India, Estate Cell, Bandra Kurla Complex, Mumbai - 400051 so as to reach C7, 3rd floor, Estate Cell, Bandra Kurla Complex, Reserve Bank of India, Mumbai- 400051 up to 12.00 PM on September 04, 2024 superscribed as "EMD for Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.". Online tenders will be available for viewing /downloading by all firms till 03:00 PM on September 04, 2024.
3. All the Pre-Qualification papers shall be uploaded by the intending bidder on MSTC portal along with tender Part-I on or before September 04, 2024 till 3:00 PM. The same shall be examined by the Bank and the eligible participants shall be intimated accordingly.
4. The firms which do not comply with the following **pre-qualification criteria** and/or do not submit EMD will not be considered for opening of their tender Part-II (Price Bid):
 - a. The intending bidder must have minimum 5 years of experience in carrying out similar nature of works viz. Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based Solar Power Plant (SPP). **The similar work* should have been completed on or before June 30, 2019.**
 - b. The intending bidder must have executed successfully "Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based Solar Power Plant (SPP), during last five years ending on June 30, 2024 as under:

(a) Three works each costing not less than 40% of Rs. 31.25 lakh

OR

(b) Two works each costing not less than 50% of Rs. 31.25 lakh

OR

(c) One work costing not less than 80% of Rs. 31.25 lakh

- c. Minimum yearly turnover of 100% of Rs. 31.25 lakh during last 3 financial years ending March 31, 2024, supported by audited financial statements.
- d. Should furnish solvency certificate issued by applicant's Banker for the estimated cost of work.

***Similar Works** means - works of Design, Supply, Installation, Testing and Commissioning of **grid interactive** SPV based Solar Power System.

5. In addition to above, intending bidders shall also submit following details and supporting documents along with PQ papers for Bank's examination:

(a)	Composition of the firm	Full particulars (whether contractor is an individual, or a partnership firm, or a company etc.,) of the composition of the firm of contractors in details should be submitted along with name(s) and address (es), of the partner's copy of the Articles of Association/ Power of Attorney/other relevant document.
(b)	Work experience & Completion of similar works of specified value during the specified period	Copies of the detailed work orders indicating date of award, value of awarded work, time given for completing the work etc. and the corresponding completion certificates indicating actual date of completion and actual value of executed similar works should be enclosed in proof of the work experience. The details along with documentary evidence of previous experience, if any, of carrying out works for the Reserve Bank of India at any Centre, should also be given.
(c)	Turnover	Audited financial statements for last three financial years i.e. 2021-22, 2022-23 and 2023-24 along with a certificate of Chartered Accountant indicating the turnover for these financial years.

(d)	Credit worthiness of the contractor and their turnover during the specified period	Copies of the Income Tax Clearance Certificates/Income Tax Assessment Orders along with the latest final accounts of the business of the contractor duly certified by a Chartered Accountant should be enclosed in proof of their creditworthiness and turnover for last three years.
(e)	Name(s) and address(es) of the Bankers and their present contact executives	Written Information about the names and addresses of their bankers along with full details, like names, postal addresses, e-mail IDs, telephone (landline and mobile) nos., fax nos., etc. of the contact executives (i.e. the persons who can be contacted at the office of their bankers by the Bank, in case it is so needed) should be furnished.
(f)	Details of bank accounts	Full particulars of their bank accounts, like account no. type, when opened etc., should be given.
(g)	Name(s) and address(es) of the Clients and their present contact executives	Written information about the names and addresses of their clients along with full details, like names, postal addresses, e-mail IDs, telephone (landline and mobile) nos., fax nos. etc., of the contact executives (i.e. the persons who can be contacted at the office of their clients by the Bank in case it is so needed) should be furnished.
(h)	Details of completed works	The client-wise names of work(s), year(s) of execution of work (s), awarded and actual cost (s) of executed work (s), completion time stipulated in the contract (s) and actual time taken to complete the work (s), Name(s) and full contact-details of the officers/authorities/departments under whom the work(s) was/were executed should be furnished.
(i)	Details of Service setup	Full fledged service setup should be available for the specified job either at Mumbai or at nearby city/place wherefrom required quality after sales services can be regularly provided.
(j)	Details of registration and copies of registration certificate/ documents for	PAN GST Office of Labour Commissioner, if applicable

6. In the event of intending bidder's failure to satisfy the Bank; the Bank reserves the right to not allow him to participate in tendering process.
7. A pre-bid meeting (off-line mode) of the intending bidders will be held on August 23, 2024 at 11.00 AM at Estate Cell, BKC, Reserve Bank of India, Mumbai. **The bidders are advised to peruse the tender and visit the site and submit any matter requiring**

clarification to the RBI by email to estatecellbkc@rbi.org.in latest by 5:00 PM on the previous working day of the pre-bid meeting. The duly filled in tender documents shall be uploaded on MSTC site till 3:00 PM on September 04, 2024. No further clarifications/queries will be entertained after the pre-bid meeting.

8. (a) Tender forms can be downloaded for viewing from the website www.mstcecommerce.com w.e.f. July 26, 2024 from 5:00 PM

(b) EMD of ₹ 62,500/- (Rupees Sixty Two Thousand Five Hundred only) in the form of NEFT or DD issued by a scheduled Bank or BG should be submitted on or before 12.00 PM on September 04, 2024. After examination, if any of the tenderer is not found to possess the required eligibility, their tenders will not be accepted by the Bank for further processing.

(c) Tenderers shall submit all the information and the documents as mentioned in the tender.

After examination, if any of the bidder is not found to possess the required eligibility, their tenders will not be accepted by the Bank for further processing.

9. Part I of the tenders will be opened on-line at 03.30 PM onwards on September 04, 2024 in the presence of the authorized representative of the bidders who choose to be present. Part-II (Price bid) shall be opened of the eligible bidders on a subsequent date which will be intimated to the eligible bidders in advance.

10. The applicants/tenderers have to upload

- a. Client's certificate as per format given in the tender from their clients for whom they have carried out "eligible works" in terms of the eligibility (Pre-qualification) criteria explained in this notice.
- b. Banker's certificate as per format given in the tender from their banker/bankers

The client's certificate shall be accepted only when the same is signed by an official of the rank of Executive engineer/Superintendent Engineer or equivalent in respect of a Government/Semi Government organization or a PSU and only when they are supported by adequate proof of payment received by the contractor for the work done by him. The client's certificate issued by the private organizations shall also accompany Tax Deducted at Source (TDS) certificates. Applications/tenders uploaded without the above certificates may be rejected. The Bank shall have the right to independently verify these certificates.

The Bank shall evaluate the said reports before processing the tenders and opening of price bid of the tenders. If any bidder is not found to possess the required eligibility for participating in the tendering process at any point of time and/or his performance reports received from his clients and/or his bankers are found unsatisfactory, the Bank reserves the right to reject his offer even after opening of Part-I of the tender. The Bank is not bound to assign any reason for doing so.

11. Any amendments / corrigendum to the tender, if any, issued in future will only be notified

on the RBI Website and MSTC Website as given above.

12. The Bank is not bound to accept the lowest tender and reserves the right to accept either in full or in part any tender. The Bank also reserves the right to reject all the tenders without assigning any reason there for.

SCHEDULE OF TENDER (SOT)

a. e-Tender no	RBI/Mumbai Regional Office/Estate/45/23-24/ET/629
b. Mode of Tender	e-Procurement System (Online Part I - Techno-Commercial Bid and Part II - Price Bid through (https://www.mstcecommerce.com/eprocn) For participation in the tender kindly register on the MSTC Portal.
c. Date of NIT available to parties to download (View Tender Time)	July 26, 2024 (Friday) from 05:00 PM onwards
d. Date of Starting of e-Tender for submission of on line Techno- Commercial Bid and price Bid at https://www.mstcecommerce.com/eprocn	July 26, 2024 (Friday) from 05:00 PM onwards
e. Pre-Bid meeting	Offline 11.00 AM on August 23, 2024 (Friday) at C-7, 3rd floor, Estate Cell BKC, Reserve Bank of India, BKC office, Mumbai- 400051
f. Earnest Money Deposit (EMD)	₹62,500/- (Rupees Sixty Two Thousand Five Hundred only) in the form of NEFT or DD or Bank Guarantee in favour of Reserve Bank of India, Mumbai. The Demand Draft shall be submitted in sealed cover addressed by name to Regional Director, Estate Cell, Bandra Kurla Complex, C-7, 3rd floor, Reserve Bank of India BKC, Mumbai-400051 so as to reach Estate Cell, BKC, C-7 3rd floor, Reserve Bank of India BKC, Mumbai-400051 NEFT Details Beneficiary Name- Reserve Bank of India A/c No – 04861436223 IFSC CODE –RBIS0MBPA04 (5th & second from last digit are zero). Proof of submission of EMD should be uploaded on MSTC portal and e-mailed on surajksingh@rbi.org.in / estatecellbkc@rbi.org.in
g. Last date of submission of EMD	September 04, 2024 (Wednesday) till 12.00 PM
h. Last date of submission of Pre-Qualification (PQ) papers;	03:00 PM on September 04, 2024 (Wednesday)

To be uploaded on MSTC portal along with tender Part-I	Note: The Pre-qualification documents of only those tenderers shall be scrutinized, who have submitted the EMD amount within due date/time.
i. Date of closing of online e-tender for submission of Techno-Commercial Bid & Price Bid	03:00 PM on September 04, 2024 (Wednesday)
j. Date & time of opening of Part-I (i.e. Techno-Commercial Bid)	on September 04, 2024 (Wednesday); 03:30 PM onwards at Estate Cell, BKC, C-7 3rd floor, Reserve Bank of India BKC, Mumbai-400051
k. Date & time of opening of Part-II (i.e. Price Bid)	Date of opening of Part II i.e. price bid shall be informed separately
l. Transaction Fee	₹1,562.50/- exclusive of GST as applicable. Payment of transaction fee through MSTC payment gateway/NEFT/RTGS in favour of MSTC LIMITED

Important instructions for E-procurement

Bidders are requested to read the terms & conditions of this tender before submitting your online tender.

1	Bids in two bid system: E-tenders are invited for the work in two parts.
	<p>Process of E-tender :</p> <p>A) Registration: The process involves vendor's registration with MSTC e-procurement portal which is free of cost. Only after registration, the vendor(s) can submit his/their bids electronically. Electronic Bidding for submission of Techno-Commercial Bid as well as Price Bid over the internet will be done. The Vendor should possess Class III signing type digital certificate. Vendors are to make their own arrangement for bidding from a P.C. connected with Internet. MSTC/RBI, is not responsible for making such arrangement. (Bids will not be recorded without Digital Signature).</p> <p>SPECIAL NOTE: THE PRICE BID AND THE COMMERCIAL BID HAS TO BE SUBMITTED ON-LINE ONLY AT https://www.mstcecommerce.com/eprocn/ (Version 3-New Common Portal)</p> <p>1) Vendors will receive a system generated mail confirming their registration in their email which has been provided during filling the registration form. In case of any clarification, please contact RBI/MSTC, (before the scheduled time of the e- tender).</p> <p><u>Contact person (RBI):</u></p> <p>Abhijeet Arvind Deshmukh (Assistant Manager); 9969201968; E-mail: abhijeetdeshmukh@rbi.org.in - For Technical Query</p> <p>Suraj Kumar Singh (Assistant Manager); 9198394034, E-mail: surajksingh@rbi.org.in – For general nature query</p> <p><u>Contact person (MSTC officials) in case of any technical clarifications regarding MSTC Portal-</u></p> <p>1. Name: Shri Manas Mallick, Senior Manager (MSTC-WRO), Email: manas@mstcindia.co.in ; Mobile no.: 9831108435.</p> <p>2. HO Central Help Desk: Phone Number :07969066600, Email: helpdeskho@mstcindia.in (Please mention "HO Helpdesk" as subject while sending emails) Availability: 9:30 AM to 5:00 PM on all working days for all Technical issues e-Tenders, System settings etc.</p> <p>The bidders can also submit their issues vide e-mail at helpdesk@mstcindia.co.in</p> <p>Vendors are required to register themselves online with www.mstcecommerce.com/eprocn</p> <p>Register as Vendor -- Filling up details and creating own user id and password Submit. For further details, go to System Settings (on dashbar) Download Guide / Video / Registration Guide.</p>

	<p>B) System Requirement:</p> <ul style="list-style-type: none"> i) Windows XP-SP3 & above/Windows 7 Operating System ii) IE-7 and above Internet browser. iii) Signing type digital signature iv) JRE 7 update 9 and above software to be downloaded and installed in the system. <p>To enable ALL active X controls and disable 'use pop up blocker' under Tools→Internet Options→ custom level</p> <p>For more details, vendor may refer to the Vendor Guide and FAQ available www.mstcecommerce.com/eproc</p> <p>Tools => Internet Options => General => Click On Settings under “browsing history/Delete Browsing History” =>Temporary Internet Files => Activate“ Everytime I Visit theWebpage”.</p> <p>To enable ALL active X controls and disable 'use pop up blocker' under Tools→ Internet Options → custom level (Please run IE settings from the page www.mstcecommerce.com once)</p>
2	The Techno-commercial Bid and the Price Bid shall have to be submitted online at www.mstcecommerce.com/eproc . Tenders will be opened electronically on specified date and time as given in the Tender.
3	All entries in the tender should be entered in online Technical & Commercial Formats without any ambiguity.
4	<p>Special Note towards Transaction fee:</p> <p>The vendors shall pay the transaction fee using “Transaction Fee Payment” Link under “My Menu” in the vendor login. The vendors have to select the particular tender from the event dropdown box. The vendor shall have the facility of making the payment either through NEFT or Online Payment. On selecting NEFT, the vendor shall generate a challan by filling up a form. The vendor shall remit the transaction fee amount as per the details printed on the challan without making change in the same. On selecting Online Payment, the vendor shall have the provision of making payment using its Credit/ Debit Card/ Net Banking. Once the payment gets credited to MSTC's designated bank account, the transaction fee shall be auto authorized and the vendor shall be receiving a system generated mail.</p> <p>Transaction fee is non-refundable.</p> <p>A vendor will not have the access to online e-tender without making the payment towards transaction fee.</p> <p>NOTE</p> <p>Bidders are advised to remit the transaction fee well in advance before the closing time of the event so as to give themselves sufficient time to submit the bid.</p>
5	Information about tenders /corrigendum uploaded shall be sent by email only during the process till finalization of tender. Hence the vendors are required to ensure that

	their corporate email I.D. provided is valid and updated at the time of registration of vendor with MSTC. Vendors are also requested to ensure validity of their DSC (Digital Signature Certificate).
6	E-tender cannot be accessed after the due date and time mentioned in NIT.
7	<p>Bidding in e-tender :</p> <p>a) Vendor(s) need to submit necessary EMD, Tender fees and Transaction fees (If ANY) to be eligible to bid online in the e-tender. Tender fees and Transaction fees are non-refundable. No interest will be paid on EMD. EMD of the unsuccessful vendor(s) will be refunded by the tender inviting authority after award of work to successful bidder.</p> <p>b) The process involves Electronic Bidding for submission of Technical and Commercial Bid.</p> <p>c) The vendor(s) who have submitted transaction fee can only submit their Technical Bid and Commercial Bid through internet in MSTC website</p> <p>www.mstcecommerce.com → e-procurement → New Common Portal → Bid Floor Manager → live event → Selection of the live event → Techno Commercial Bid.</p> <p>d) The vendor should allow running JAVA application. This exercise has to be done immediately after opening of Bid floor. Then they have to fill up Common Terms/Commercial specification and save the same. After that click on the Technical bid. If this application is not run then the vendor will not be able to Save/submit his Technical bid.</p> <p>e) After filling the Technical Bid, vendor should click 'save' for recording their Technical bid. Once the same is done, the Commercial Bid link becomes active and the same has to be filled up and then vendor should click on "save" to record their Commercial bid. Once both the Technical bid & Commercial bid has been saved, the vendor can click on the "Final submission" button to register their bid</p> <p>) Vendors are instructed to use Attach Doc button to upload documents. Multiple documents can be uploaded.</p> <p>g) In all cases, vendor should use their own ID and Password along with Digital Signature at the time of submission of their bid.</p> <p>h) During the entire e-tender process, the vendors will remain completely anonymous to one another and also to everybody else.</p> <p>i) The e-tender floor shall remain open from the pre-announced date & time and for as much duration as mentioned above.</p> <p>j) All electronic bids submitted during the e-tender process shall be legally binding on the vendor. Any bid will be considered as the valid bid offered by that vendor and acceptance of the same by the Buyer will form a binding contract between Buyer and the Vendor for execution of supply.</p> <p>k) It is mandatory that all the bids are submitted with digital signature certificate otherwise the same will not be accepted by the system.</p> <p>l) Buyer reserves the right to cancel or reject or accept or withdraw or extend the tender in full or part as the case may be without assigning any reason thereof.</p> <p>m) No deviation of the terms and conditions of the tender document is acceptable. Submission of bid in the e-tender floor by any vendor confirms his acceptance of terms & conditions for the tender.</p>
8	Any order resulting from this tender shall be governed by the terms and conditions mentioned therein.

9	No deviation to the technical and commercial terms & conditions are allowed.
10	The tender inviting authority has the right to cancel this e-tender or extend the due date of receipt of bid(s) without assigning any reason thereof.
11	Vendors are requested to read the vendor guide and see the video in the page www.mstcecommerce.com/eprochome to familiarize them with the system before bidding.

I/We hereby declare that I/we have read and understood the above instructions.

Place
Date

Signature of bidder

INDEX

Sr. No.	Description	Page No.
1.	Section-I. Form of Tender, Memorandum	13
2.	Section-II. Articles of Agreement	16
3.	Section-III. General instructions to tenderer & special conditions	24
4.	Section-IV. Safety code, fire safety	40
5.	Section-V. The condition herein before referred to and Appendix	42
6.	Section-VI. Check list.	58
7.	Section-VII. Technical specifications	60
8.	Annexure A Schedule of Technical Information	77
9.	Annexure B- Guaranteed Energy Generation	81
10.	Annexure C- Format for undertaking Product & Maintenance Support	82
11.	Annexure D – Undertaking regarding service after sales	83
12.	Annexure E- Declaration of Country of Origin	85
13.	Annexure F- Format for factory acceptance test	86
14.	Annexure G- Proforma for client's certificate	87
15.	Annexure H- Proforma for Banker's certificate	89
16.	Annexure I- Format for power of attorney for signing of proposal	90
17.	Annexure J-Proforma For Bank guarantee in lieu of earnest money deposit	91
18.	Annexure K- Proforma of Bank guarantee for security deposit	94
19.	Annexure L – Format for providing details for NEFT payment	97
20.	Annexure M – Undertaking regarding restriction on procurement from bidder of a country which shares a land border with India	99
21.	Annexure N – Undertaking regarding non-debarment	101
22.	Annexure O – Proforma for Indemnifying the Employer Against Non Compliance to Contract labour Rules/regulations	102
23.	Annexure P – Proforma for Indemnifying the Employer against Patent Rights	103
24.	Annexure Q – List of Approved make of materials	104
25.	Un-Priced Bill of Quantities (not for quote)	105
26.	Price Bid	107

Section I
Form of Tender

Place _____

Date _____

**Regional Director
Reserve Bank of India
Estate Cell, BKC
Mumbai - 400051**

Dear Sir/Madam,

We have carefully examined the specifications, designs and schedule of quantities relating to the works specified in the memorandum hereinafter set out and having visited and examined the installation site of the works specified in the said memorandum and having acquired the requisite information relating thereto as affecting the tender. We hereby offer to execute the works specified in the said memorandum within the time specified in the said memorandum at the rates mentioned in the attached Schedule of Quantities and in accordance in all respects with specifications, designs and instructions in writing referred to in articles of agreement, general instructions to the tenderers and special conditions, conditions hereinbefore referred to, specifications, data sheet and schedule of quantities and with such materials as are provided for, by and in all other respects, in accordance with such conditions so far as they may be applicable.

MEMORANDUM

(a)	Description of works	Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.
(b)	Estimated cost	Rs 31.25 lakhs
(c)	Mode of payment	As per clause 3.13 General Instructions to Contractors and Special Conditions.
(d)	Earnest Money	Rs. 62,500/-
(e)	Time allowed for completion of work from fourteenth day after the date of letter advising acceptance of tender.	12 weeks

2. We also agree that our tender will remain **valid for acceptance by the Bank for 90 days from the date of opening of Part I of the tender** and this period of validity can be extended for such period as may be mutually agreed between the Bank and us in writing. We also agree to keep the Bank Guarantee towards earnest money valid during the entire period of validity of tender, as per enclosed proforma (Annexure J).
3. Should this Tender be accepted, I/we hereby agree to abide by and fulfil all the Terms and Conditions of the Tender and in default thereof, to forfeit and pay to you or your successors, or assignees or nominees such sums of money as are stipulated in the conditions contained in the tender together with the written acceptance of the Contract.
4. I/We understand that you reserve the right to accept or reject any or all the tender either in full or in part without assigning any reason therefor. We have deposited a sum of **Rs. 62,500/-** as earnest money with the Reserve Bank of India, which amount is not to bear any interest. Should we fail to execute the Contract when called upon to do so, we do hereby agree that this sum shall be forfeited by us to the Reserve Bank of India.
5. The tenders shall be uploaded in two parts. Part I contains all commercial terms and conditions and technical particulars and Part II contains only the price bid in the Bank's proforma.

Dated: _____ day of _____ 2024.

For and on behalf of M/s _____

(Signature with seal)

Name _____

Designation _____

Place _____

Date _____

(Certified true copy of the Power of Attorney of the above signatory should be enclosed).

Witnesses

(1) Signature with
name, address and date

(2) Signature with
name, address and date

Section II

Draft Articles of Agreement

(On Non Judicial Stamp Paper of appropriate value)

ARTICLES OF AGREEMENT made the _____ day of _____ between the Reserve Bank of India, Mumbai Regional Office, Shahid Bhagat Singh Marg, Fort, Mumbai-400001, having its Central Office at Shahid Bhagat Singh Marg , Fort, Mumbai 400001 (hereinafter called “the Employer”) of the one part and

_____ (hereinafter called “the Contractor”) of the other part.

WHEREAS the Employer is desirous of carrying out the work of Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.and has caused specifications and schedule of quantities describing the works to be done.

AND WHEREAS the said Specifications and the Schedule of Quantities have been signed by or on behalf of the parties hereto.

AND WHEREAS the Contractor has agreed to execute upon and subject to the Conditions set forth herein and to the Conditions set forth in the Special Conditions and in the Schedule of Quantities and Conditions of Contract (all of which are collectively hereinafter referred to as “the said Conditions”) the works described in the said Specification and included in the Schedule of Quantities at the Respective rate therein set forth amounting to the sum as therein arrived at or such other sum as shall become payable there under (hereinafter referred to as “the said Contract Amount”).

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. In considerations of the said Contract Amount to be paid at the times and in the manner set forth in the said Conditions, the Contractor shall upon and subject to the said Conditions execute and complete the work described in the said Specifications and the Schedule of Quantities.
2. The Employer shall pay the Contractor the said Contract Amount or such other sum as shall become payable, at the times and in the manner specified in the said Conditions.
3. The term “Architect” in the said conditions shall mean CGM-In-Charge, Premises Department, Reserve Bank of India, Mumbai for the purpose of this contract.
4. The Reserve Bank of India shall administer and directly arrange for supervision of works, certification of bills, making payments and implementation of various terms, conditions and stipulations of the contract.

5. The said conditions and various schedules shall be read and construed as forming part of this agreement, and the parties hereto shall respectively abide by, submit themselves to the said Conditions and perform the agreements on their part respectively in the said Conditions contained.
6. The agreement and documents mentioned herein shall form the basis of this Contract.
7. This Contract is Lump sum contract, in which the Contractor undertakes to execute the entire work to meet the end specifications at a total cost without any reference to the quantities of various sub-items of work in respect of Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur as per tender terms & conditions and technical specifications.
8. The Contractor shall afford every reasonable facility for the carrying out of all works relating to the said works in the manner laid down in the said conditions and shall make good any damages done to walls, floors etc. after the completion of such works.
9. The Employer reserves to itself the right of altering the nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this contract.
10. The contractor hereby agrees to commence the work from 14th day of date of work award letter and to complete the entire work within 12 weeks subject nevertheless to the provisions for extension of time in writing by such form (i.e. by way of a deed of agreement or by exchange of letters/e-mails) as may be mutually decided by the parties. Time shall be considered as the essence of this Contract.

11. Warranty/ Defects Liability Period.

(a) The entire system shall be warranted against any manufacturing/design/ installation defects etc for a **minimum period of one year from the date of handing over**. During this period any defect observed in the system shall be rectified within 2 days of the observation without any additional cost to the Bank.

(b) Supply and replacement of all spares, consumables and parts required for smooth operation and serviceability of the system shall be the responsibility of the contractor during this period. In this respect the contractor shall maintain sufficient spares/consumables for immediate replacement of defective / damaged part during day-to-day routine maintenance / breakdown maintenance. Cost of these spares and any other spares which may be required during maintenance is deemed to be included in the rates quoted by the contractor. The periodicity of

service shall be monthly or more depending upon the weather conditions.

(c) Penalty for delay in rectification of fault during DLP:

There will be a penalty of **Rs. 500/- per day** subject to maximum of 50% of the annual maintenance charges, if the defect in the system is not rectified within the period of 2 days during the DLP period. Any penalty during the DLP shall be recovered from any dues payable to the contractor or invoke from the bank guarantee.

PV modules used in solar power systems / systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.

Penalty for Reduced Generation during initial 5 years:

As mentioned under the foregoing paragraphs, the successful tenderer is required to commit a guaranteed average annualized energy of specified KWH per year at synchronization point. Failure to do so will make the contractor liable to pay compensation at double the rate of the prevailing tariff of Electricity supply Agency for shortfall of every KWH or part thereof of the power generated.

Penalty shall be derived as per the following formula:

$$\begin{aligned}\text{Actual output for the year under reference} &= A \text{ (KWH)} \\ \text{Guaranteed output of the system as per the contract} &= B \text{ (KWh)} \\ \text{Compensation to be paid to the Bank in case of reduced generation (Rs)} \\ &= (B-A) \times (\text{Tariff} \times 2)\end{aligned}$$

Comprehensive Annual Maintenance Contract (CAMC) after DLP period

(a) The tenderers shall quote their charges separately for comprehensive annual maintenance service of complete system as per schedule of quantities which will be applicable after one year of defect liability period (DLP). The rates shall also include the charges for the insurance of the workmen for carrying out the above job and GST for maintenance shall be quoted in respective column in the BOQ.

(b) The system shall be inspected, upkeep/serviced periodically. The periodicity shall be **monthly or earlier** depending upon the weather conditions.

(c) The charges for comprehensive annual maintenance service shall include replacement of any part of the system, including all required spares, consumables etc during service contract period. Any defects in the system/sub-assemblies,

found within the AMC period, shall be rectified/ replaced by the tenderer without any additional cost to the Bank

(d) Penalty for delay in rectification during CAMC:

During the comprehensive annual maintenance service period (after DLP period), any fault in the system shall be rectified within 2 days of receipt of intimation of the defect in the system. The quoted rates shall, therefore, take into account all the cost, including travel cost from the nearest service station. There will be a penalty of **Rs. 500/- per day** subject to maximum of 50% of the annual maintenance charges, if the defect in the system is not rectified within the period of 2 days during the AMC period as stated above. Any penalty during the DLP shall be recovered from any dues payable to the contractor or invoke from the bank guarantee.

(e) Payment of service charges during comprehensive annual maintenance service (CAMC):

The payment during the CAMC period shall be **made on half yearly basis** on rendering satisfactory service.

(f) The service contract shall be renewed for a further additional period of at least 8 years after the initial Comprehensive annual service contract period of one year after one-year warranty. While renewing the contract the new contract amount will be arrived at based on following formula:

$A_C = A_P [(15+60 \times (EPI_C/EPI_P) + 25 \times (CPI_C/CPI_P))] / 100$	
A_C	The contract amount for the current year.
A_P	The contract amount for the previous year.
EPI_C	Wholesale Price Index for Electrical Products 6 months prior to the commencement date of contract for the current year.
EPI_P	Wholesale Price Index for Electrical Products 6 months prior to the commencement date of contract for the previous year.
CPI_C	Consumer Price Index for Industrial Workers (All India Average) 6 months prior to the commencement date of contract for the current year.
CPI_P	Consumer Price Index for Industrial Workers (All India Average) 6 months prior to the commencement date of contract for the previous year.

The successful tenderer shall enter into an agreement for comprehensive annual maintenance contract of the system with the Bank.

Scope of works during CAMC

(A) The scope of work shall include the following:

- (i) Routine servicing/ troubleshooting/ setting/ adjustments/ cleaning/ checking of safeties etc. to ensure smooth and trouble free working of the system.
- (ii) Repairs/ replacement to the SPP including re-loading software etc. in the event of any malfunctioning including replacement of spares/ components/ sub-system/ cards/ and any other component, part or whole, which may need replacement/ repairs.
- (iii) Procurement, including Import, wherever required, of spares and stocking them shall be responsibility of the tenderer. Non availability of spares/ components will not be accepted as a reason for waiving of penalty towards delay in rendering prompt service.
- (iv) All manufacturers preventive maintenance schedules/ replacement periodicity of components like electrical/electronics parts including checking of safety devices, protections phase reversal, load testing etc. shall be strictly followed as per the manufacturer's periodicity or as required in addition to the scope of maintenance indicated above.
- (v) The scope of maintenance in addition to periodic maintenance will also include attending to any number of breakdown calls.
- (vi) Inspection along with measurement of earth resistance of all the earth stations and report to be submitted to the concerned RBI office once in a year.

The contactor shall also ensure that the required spares etc. for proper maintenance are readily available with them for the complete life span of the system.

12. Performance Bank Guarantee (PBG):

- a. The tenderer shall furnish a separate Bank guarantee of 10% of the contract value as Security for due fulfilment of terms and obligation of defects liability period from the date of commissioning and handing over of the works as specified in the tender to the Bank at the time of submission of final bill. The Bank Guarantee must be valid for five (05) years from the date of virtual completion of the project.
- b. After completion of five years (01 year DLP & initial 04 years CAMC period), the tenderer shall furnish a fresh BG valid for a further period of FIVE years for a sum of Five percent (5%) of the contract value for due fulfillment of the obligations towards Comprehensive Annual maintenance contract. This renewed BG should be submitted atleast 15 days in advance before expiry of above referred BG of 10% amount. In case of failure on the part of firm to submit 5% BG, initial 10% PBG will be invoked without any notice to the firm.
- c. The Bank reserves the right to enforce the Bank Guarantee in case of unsatisfactory performance of the terms, conditions of the DLP and CAMC set out in the tender at any time during the currency of committed period of Ten (10) years (One year DLP and 09 years CAMC).

13. All payments by the Employer under this Contract shall be made only at Mumbai.

14. All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen at Mumbai and only Courts in Mumbai shall have jurisdiction to determine the same.
15. That the several parts of this Contract have been read by the Contractor and fully understood by the Contractor. The Contractor shall not be entitled for the payment for the quantities beyond the tendered quantities unless ordered for by specific written instructions from the Bank's Engineer-in-Charge.
16. The Contractor shall not disclose directly or indirectly any information, materials and details of the Bank's infrastructure/systems/equipment etc., which may come to the possession or knowledge of the Contractor during the course of discharging its contractual obligations in connection with this agreement, to any third party and shall at all times hold the same in strictest confidence. The Contractor shall treat the details of the contract as private and confidential, except to the extent necessary to carry out the obligations under it or to comply with applicable laws. The Contractor shall not publish, permit to be published, or disclose any particulars of the works in any trade or technical paper or elsewhere without the previous written consent of the Employer. The Contractor shall indemnify the Employer for any loss suffered by the Employer as a result of disclosure of any confidential information. Failure to observe the above shall be treated as breach of contract on the part of the Contractor and the Employer shall be entitled to claim damages and pursue legal remedies.

The Contractor shall take all appropriate actions with respect to its employees to ensure that the obligations of non-disclosure of confidential information under this agreement are fully satisfied.

The Contractor's obligations with respect to non-disclosure and confidentiality will survive the expiry or termination of this agreement for whatever reason.

17. The contractor shall comply to the provisions of Prevention of Sexual Harassment at workplaces Act.
- a) The Contractor/ Agency shall be solely responsible for full compliance with the provisions of "the Sexual Harassment of women at work place (Prevention, Prohibition and Redressal) Act, 2013". In case of any complaint of sexual harassment against its employee within the premises of the Bank, the complaint will be filed before the Internal Complaints Committee constituted by the Contractor/ Agency and the Contractor/ Agency shall ensure appropriate action under the said Act in respect to the complaint.
- b) Any complaint of sexual harassment from any aggrieved employee of the contractor against any employee of the Bank shall be taken cognizance of by the Regional Complaints Committee constituted by the Bank.
- c) The contractor shall be responsible for any monetary compensation that may need to be

paid in case the incident involves the employees of the contractor, for instance any monetary relief to Bank's employee, if sexual violence by the employee of the contractor is proved.

d) The contractor shall be responsible for educating its employees about prevention of sexual harassment at work place and related issues.

e) The contractor shall provide a complete and updated list of its employees who are deployed within the Bank's premises.

भारतीय रिजर्व बैंक द्वारा हस्ताक्षरित और वितरित

श्री _____ के द्वारा
(नाम और पदनाम)
इनकी उपस्थिति में -
साक्षी -

1. _____
पता:

2. _____
पता:

SIGNED AND DELIVERED by the Reserve Bank of India by the hand
of

Shri _____
(Name and Designation)
..... In the presence of
Witnesses –

1. _____
Address:

2. _____
Address:

यदि भाग साझेदारी फर्म या व्यक्तिगत स्वामी है, तो सभी
के द्वारा या सभी भागीदारों की तरफ से हस्ताक्षरित होना
चाहिए

..... के द्वारा हस्ताक्षरित और वितरित किया
गया था।

साक्षी

1).....

...

.....

.....

2)

.....

पता

.....

.....

If the part is a partnership firm or any individual
should be signed by all or on behalf of all the
partners.

SIGNED AND DELIVERED BY

.....

Witnesses –

1).....

.....

.....

2) Address

.....

.....

दिनांक को यदि ठेकेदार ने आम आयोजित बैठक में मुहर के तहत हस्ताक्षर निदेशक मण्डल द्वारा किये हैं, तो उस हस्ताक्षर पारित संकल्प के अनुसरण का संस्था के अंतर्नियम में आम मुहर यहाँ के लिए मुहर क्लॉज के साथ लगाई जाती है। मिलान करना चाहिए।

THE COMMON SEAL OF
Was hereunto affixed
pursuant to the
resolutions passed
By its Board of Directors
at the meeting held on
.....
.....
.....
.....

If the Contractor signs
under its common Seal
the signature clause
should tally with their
sealing clause in the
Articles of Associations.

की उपस्थिति में यदि ठेकेदार की तरफ
(1 से मुख्तारनामा प्राप्त
..... व्यक्ति ने हस्ताक्षर किये
..... हैं, चाहे वह कंपनी हो या
(2 कोई व्यक्ति
.....
.....

In the presence of

(1
.....
.....
(2
.....
.....

The Contractor is signing
by the hand of power of
attorney whether a
company or individual.

निदेशक जिन्होंने वहाँ मौजूद की उपस्थिति में इन प्रस्तुतों पर हस्ताक्षर किये हैं -

(1)

(2)

2. _____

यदि ठेकेदार की तरफ से मुख्तारनामा प्राप्त व्यक्ति ने हस्ताक्षर किये हैं, चाहे वह कंपनी हो या कोई व्यक्ति

इनके द्वारा हस्ताक्षरित और वितरित--

इन के हाथ से ठेकेदार द्वारा

श्री _____

और विधिवत गठित वकील

Directors who have signed these presents in taken
thereof in the presence of

(1)

(2)

2. _____

If the Contractor is signed by the hand of Power of Attorney,
whether of a company or an individual

SIGNED AND DELIVERED BY -

The Contractor by the hand of

Shri _____

and duly constituted attorney.

Section III
General Instructions to Tenderers and Special Conditions

3.1 Commercial conditions:

3.1.1 E-tenders are invited for Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur **for an estimated cost of Rs. 31.25 lakhs** from eligible firms.

3.1.2. Eligibility Criteria:

Online tenders will be allowed to view /download to all firms from 05:00 PM on July 26, 2024.

The firms which do not comply with the following pre-qualification criteria and/or do not submit EMD will not be considered for opening of their tender Part-II (Price Bid):.

- a. The intending bidder must have minimum 5 years of experience in carrying out similar nature of works viz. Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based Solar Power Plant (SPP). **The similar work* should have been completed on or before June 30, 2019**
- b. The intending bidder must have executed successfully “Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based Solar Power Plant (SPP), during last five years ending on June 30, 2024 as under:
 - (i) Three works each costing not less than 40% of Rs. 31.25 lakh
 - OR
 - (ii) Two works each costing not less than 50% of Rs. 31.25 lakh
 - OR
 - (iii) One work costing not less than 80% of Rs. 31.25 lakh
- c. Minimum yearly turnover of 100% of Rs. 31.25 lakh during last 3 financial years ending March 31, 2024, supported by audited financial statements.
- d. Should furnish solvency certificate issued by applicant's Banker for the estimated cost of work.

***Similar Works** means - works of Design, Supply, Installation, Testing and Commissioning of **grid interactive** SPV based Solar Power System.

Tenderers should submit the following documents in respect of their eligibility:

- Copies of detailed work order indicating scope and value of works for the qualifying works.
- Completion certificate for the qualifying works.
- A certificate issued by Chartered Accountant indicating **turnover** for last three years along with the audited Financial statement for the same period.
- List of completed works with all the details.
- Financial statement for turnover for last 3 years

A Tender submitted by a firm who is found to be not satisfying the above criteria will be rejected.

3.1.3 Tender submission:

The tender shall be submitted online on MSTC website in two parts, viz, Part I and Part II "Part -I – Technical and Commercial" and "Part II – Price bid", respectively.

3.2 Pre-Bid Meeting: The bidders are advised to peruse the tender and visit the site and submit any matter requiring clarification to the RBI by email to estatecellbkc@rbi.org.in latest by 5:00 PM on the previous working day of the pre-bid meeting. A pre-tender briefing meeting of the intending tenderers will be held at 11:00 hours on August 23, 2024 at Estate Cell, C7/3rd floor, Reserve Bank of India, Bandra Kurla Complex to clarify any point/doubt raised by them in respect of the tender. No separate communication will be sent for this meeting. All the intending tenderers are advised to be present and study the tender documents. They may indicate any points/conditions/specifications which need to be clarified during the meeting. These issues will be discussed and all the tenderers will be advised suitably. The tenderers are expected to get all the issues clarified during this meeting and therefore should desist from deviating from the Bank's tender conditions/specifications in their technical (Part I) and Price bids (Part II)

3.3 The tenders shall be submitted / uploaded till 3:00 PM on September 04, 2024. No tender will be received/ accepted after **3:00 PM on** September 04, 2024 under any circumstances whatsoever.

3.4 a) Intending tenderers shall remit as Earnest Money a sum of **Rs 62,500/- (Rupees Sixty Two Thousand Five Hundred only)** by a demand draft in favour of Reserve Bank of India, payable at Mumbai drawn on a scheduled bank or NEFT or Bank Guarantee in a form (Annexure-J) acceptable to the Bank along with Part I of the tender. The Earnest Money Deposit of the successful tenderer shall be held by the Bank as security for the execution and due fulfilment of the Contract. No interest shall be paid on the said deposit. Under no

circumstances Earnest Money Deposit will be accepted in the form of fixed deposit receipts or insurance guarantee or cheque or cash. **EMD of successful bidder will be released after virtual completion of the work & submission of Bank Guarantee of 10% of the contract value as Security as mentioned in clause No. 3.12.3.**

b) On receipt of intimation from the Bank of the acceptance of his / their tender, the successful tenderer shall be bound to implement the contract and within **fourteen days** thereof. The successful tenderer shall sign an agreement in accordance with the draft agreement and the Schedule of Conditions but the written acceptance by the Bank of a tender will constitute a binding contract between the Reserve Bank of India and the person so tendering whether such formal agreement is or is not subsequently executed.

c) All compensation or other sums of money payable by the contractor to the Bank under the terms of this Contract may be deducted from his earnest money and the security deposit if the amount so permits and the Contractor shall, unless such deposit as become otherwise payable, within ten days after such deduction made good in cash the amount so deducted.

3.5 Part I – Technical & Commercial

3.5.1 Part I shall contain the un-priced tender consisting of complete technical specification including drawings and documents and commercial terms and conditions technical aspects of the tender such as equipment data sheets, tests and inspection, makes of materials, technical description, drawings etc.

3.5.2 Part I of the tender shall form **EMD** and the following:

- a) Power of Attorney/authorisation with the seal of the company/firm in the name of the person signing the tender documents.
- b) List of deviation, if any, in commercial/technical specification.
- c) Detailed proposed **layout drawing** and full equipment details.
- d) A letter from the OEM, authorizing the bidder to participate in the tender along with a copy of the agreement with the OEM as regards implementation of similar projects in India and their after sales service
- e) **Guaranteed DC power generation capacity** of the entire system in KWp.
- f) **Detailed specifications** of each of the offered items such as SPVs, Arrays, PCUs/Solar optimizer or micro inverters, control panels, control & monitoring systems, cables etc. matching with the specifications contained under this contract

along with manufacturer's **catalogue / product brochure**. If there are some variations in specifications and dimensions of the equipments / products as contained under the manufacturer's catalogue / product brochures vis-a-vis those given under the specifications contained under this tender document, the specifications and dimensions given in this tender document shall prevail.

- g) **Complete technical details** and any special features proposed for incorporation must be given for full technical evaluation. Supporting documents for the claimed facilities/ features shall also be attached while submitting the technical bid.
- h) **Product support for twenty-five (25) years shall be given.** Tenderer shall specifically indicate the product support offered against this tender & submit an undertaking in this regard. (Annex. – C & D)
- i) The tenderer should have maintenance set-up at Mumbai, address & telephone / fax nos. of maintenance set-up shall be indicated.
- j) Technical data sheet as given under Annexure - A shall be filled up giving full information.
- k) Other Certificates / Declarations as per Annexures enclosed to be submitted.
- l) Duly filled in and signed copies of client's reports (from two clients in the attached format, for whom similar works is executed) and Banker's certificate shall be uploaded

3.5.3 The Tenderers are advised to visit the site of installation and acquaint themselves of the site conditions before tendering.

3.5.4 The tenderers are advised to submit the tender based strictly on the General Conditions of the Contract and Technical Specifications contained in the tender documents, and not to stipulate any deviations. If acceptance of the terms and conditions given in the tender documents has any price implications, the same should be considered and included in the quoted price. **A tender containing deviation from the terms and conditions is liable for rejection.**

3.5.5 The tenderers shall submit full details of the patent, trade mark, registered design, intellectual property rights, copy rights, industrial property rights held by them or used by them of any third party with regard to design or any part of the system.

3.5.6 All information, correspondence letters shall be addressed to **Regional Director, Reserve Bank of India, Estate Cell BKC, C7 / 3rd floor, Bandra Kurla Complex, Mumbai, Maharashtra – 400051.**

3.6 Part II - Price

Part II shall contain only prices

- (a) This part shall contain prices in Indian Rupees only with break-up of price as per format (Part II). No other enclosure is permitted in Part II. Change of terms and conditions and technical deviations, if any, found in Part II of the tender will not be taken into account and will be treated as null and void.
- (b) The tenderer must use only the forms/format issued by the Bank to fill in the rates. The tenders shall be filled in English/Hindi. In case of any difference of interpretation between the two versions the English version will be considered valid. If any of the documents is missing or unsigned, the tender may be considered invalid by the Bank in its discretion.
- (c) No request for any change in rate or conditions after the opening of the part II of the tender will be entertained.
- (d) The rates quoted shall be deemed to be for the finished work and shall be firm and binding without any escalation whatsoever till the system is handed over to the Bank.
- (e) For any item, if the rate and amount do not tally with respect to the quantity, then the amount arrived on the basis of quoted rates shall only be acceptable and in case of variation of rates in figures and words, the rate quoted in words will only be considered for arriving at the total amount for that item.
- (f) The lowest bidder declared by e tendering website may not be always actual lowest bidders. Manually all calculations shall be rechecked by the Bank and by mere declaration of L1 bidder on e-tendering website does not entitle a contractor to claim any order.

3.8 Opening of Tender

Part I of the tenders will be opened online on **September 04, 2024 at 03:30 PM onwards** in the presence of tenderers who choose to be present. Price bid (Part II) of only those tenderers who are found eligible after scrutiny of their Part I of the tenders and eligibility documents will be opened on a subsequent working day which will be intimated to all the eligible tenderers.

3.9 Brief Scope of Work

3.9.1 The scope of work shall include the following.

- Design and Delivery of all equipment's, materials for the captioned work to Bank's site at Nalanda Residential Complex, Chembur including insurance, packing, handling, transporting, loading/unloading etc. at site.
- Erection, Testing, Commission of Solar Power System and handing over the system to the Bank.
- Providing regular Inspection and Upkeep of system inclusive of periodic service etc.
- Approval, if any, of local statutory authorities for connection to the grid.

3.9.2 The tenderer should indicate the complete description of the working of the system/sub systems and their power requirements with all relevant brochures/literature etc. in addition to those called for in the Technical Specifications:

3.9.3 The Tenderer shall carefully check the specifications and shall satisfy himself that the equipment offered is suitable as per the Bank's Technical Specifications.

3.9.4 Tenderer shall supply all tools, plants, scaffolding, labour and consumables etc. as required for installation, testing and commissioning of the system.

3.10 Validity of Tender

The Tender along with the prices shall remain valid initially for a period of 90 days from the date of opening of Part I of tender, which period may be further extended by mutual agreement in writing by the Tenderer and the Tenderer shall not cancel or withdraw the tender during this period.

3.11 Lowest Tender Not Necessarily to Be Accepted

3.11.1 The Bank is not bound to accept the lowest or any tender or to assign any reason for non-acceptance.

3.11.2 The tenderers shall not be entitled to claim any costs, charges, damages and expenses of and incidental to or incurred by him through or in connection with his submission of tenders, even though the Bank may elect to modify/withdraw the tender.

3.12 Earnest Money, Security Deposit & Security during Defect liability period

3.12.1 All tenderers shall deposit Earnest Money Deposit of **Rs 62,500/-** by a demand draft drawn in favour of Reserve Bank of India, payable at Mumbai, from any Scheduled Bank or NEFT or Bank Guarantee in the approved format (Annexure - J) acceptable to the Bank. The EMD paid by the tenderer shall be held by the Reserve Bank of India as security for the execution and due fulfilment of the

Contract. No interest shall be paid on the said deposit. Under no circumstances, Earnest Money Deposit will be accepted in the form of fixed deposit receipts or insurance guarantee or cheque or cash. EMD of successful bidder will be released after virtual completion of the work & submission of Bank Guarantee of 10% of the contract value as Security as mentioned in clause No. 3.12.3. The EMD of unsuccessful tenderer shall be released on acceptance of the tender.

3.12.2 All compensation or other sums of money payable by the Contractor to the Employer under the terms of this Contract may be deducted from the security deposit, if the amount so permits unless the contractor deposits such amounts in cash within ten days of issue of demand notice by the Bank.

3.12.3 The tenderer shall furnish a separate **Bank guarantee of 10% of the contract value as Security for due fulfilment of terms and obligation of defects liability period** from the date of commissioning and handing over of the works as specified in the tender to the Bank at the time of submission of final bill. The Bank Guarantee must be valid for **five (05) years from the date of virtual completion of the project**.

3.12.4 After completion of five years (01 year DLP & initial 04 years CAMC period), the tenderer shall furnish a fresh BG valid for a further period of FIVE years for a sum of Five percent (5%) of the contract value for due fulfillment of the obligations towards Comprehensive Annual maintenance contract. This renewed BG should be submitted atleast 15 days in advance before expiry of above referred BG of 10% amount. In case of failure on the part of firm to submit 5% BG, initial 10% PBG will be invoked without any notice to the firm.

3.12.5 The Bank reserves the right to enforce the Bank Guarantee in case of unsatisfactory performance of the terms, conditions of the DLP and CAMC set out in the tender at any time during the currency of committed period of Ten (10) years (One year DLP and 09 years CAMC).

3.13 Terms of Payment

The payment for the works to be executed under this contract shall be made as follows subject to statutory deductions. No variation in the mode of payment will be acceptable.

1) 60% of the quoted rates after receipt of the material at site and on submission of the following documents:

a) Manufacturer's Inspection and Test Certificates

- b) Contractor's Certificate that all components, parts, sub systems, consumables etc. for successful installation, commissioning and testing of the systems including maintenance have been received at site in good condition and if any shortfall is noticed during installation, commissioning and testing they will be supplied free to the Bank.
 - c) Policies of insurance as per tender
- 2) Balance 40% of the quoted rates after erection, testing, commissioning and handing over of the entire system and submission of BG as per clause 3.12.3.

3.14 Taxes and Subsidy

3.14.1 The prices quoted shall include all applicable taxes, custom duty, excise duty, local levies; works contract tax, service tax, Goods and Services Tax (GST) etc. as imposed by Central/State Government/ Local Bodies. If the Tenderer fails to include such taxes and duties in the tender, no claim thereof will be entertained by the Bank afterwards. Statutory deductions like income tax etc. as applicable shall be made at source and a certificate for the same will be issued to the contractor.

Bank doesn't intend to avail any subsidy for this project. Therefore, the prices are to be quoted accordingly.

3.15 Insurance

The contractor shall, within 14 days from the date of commencement of the work, insure the work at his cost and keep them insure until the virtual completion of the work against loss or damage by fire with an office. The insurance policies shall be in the joint names of the employer and the contractor (**the name of the former i.e. RBI being placed first in the policy**) for the full amount of the contract. Such policy shall cover the property of the "Employer" only. The contractor shall deposit the policy and receipts for the premium with the employer within twenty-one days from the commencement of the works. In default of the contractor, insuring as provided above, the employer may so insure the works and may deduct the premium paid from any moneys due, penalty etc., or which may become due to the Contractor without prejudice to the other rights of the Employer in respect of such default. In case it becomes necessary to suspend the works, the Contractor shall as soon as the claim under the policy is settled, or the work reinstated by the Insurance Office, should they elect to do so, proceed with all due diligence with the completion of the works in same manner as though the fire had not occurred and in all respects under the same

conditions of Contract. The Contractor in case of rebuilding or reinstatement after fire shall be entitled to such extension of time for completion as deems fit.

The contractor shall take all insurances at his cost to cover all kinds of risks from the time the equipment's/materials leave the manufacturer's works till handing over the said system to the Bank, in the joint names of the Bank and the contractor and it shall cover the following risks.

- 1. Contractor's All Risk Policy for the full Contract Value, including Earthquake and Fire Risk**
- 2. Workmen Compensation Policy for all workmen deployed at site**
- 3. Third Party Liability Policy as per following details:**
 - a. For injury to persons – Rs 2 Lakh per person per accident**
 - b. For damage to property – Rs 5 Lakh per accident**

Subject to overall ceiling as per extant Insurance guidelines

Note: These policies shall be valid till the completion of the work & in the joint name of RBI with RBI's name being the first one. If the contractor does not provide these policies, the Bank reserves the right to take the above insurance policies themselves and recover the cost thereof from the bill of the contractor or any other action.

3.16 Completion Period

3.16.1 Time allowed for carrying out the work, as mentioned in the Memorandum, shall be strictly observed by the Contractor and it shall be reckoned from the 14th day after written order to commence the work is issued.

Date of commencement – **14th day** from the date of issue of work order

Time allowed for completion of work – **12 weeks** from the date of commencement.

- Authority for granting Extension of Time – Regional Director, Reserve Bank of India, Mumbai
- Shifting of date of commencement in case of delay in handing over of site – Engineer-in-charge

3.16.2 Damages for non-completion

The work shall throughout the stipulated period of the contract be preceded with all the diligence and if the contractor fails to complete the work within the specified period, he shall be liable to pay liquidated damages as defined in "Appendix herein

before referred to” of the contract at the rate 0.25% of contract value per week for the period during which the said works shall so remain incomplete subject to a maximum of 10% of the contract amount and the Employer may deduct such damages from any money due to the Contractor.

3.16.3 The contractor shall submit a Bar Chart for completion of the work within the contractual completion period from the 14th day of letter of award of work. Such chart shall include all activities like the date of supply of material at site, item wise completion of work etc., and obtain the approval of the Bank.

3.16.4 Bank will provide storage space within the compound of the building. However, the responsibility and safety of the materials stored will be with the contractor. No accommodation will be provided for any worker by the Bank.

3.17 Warranty/ Defects Liability Period.

(d) The entire system shall be warranted against any manufacturing/design/ installation defects etc for a **minimum period of one year from the date of handing over**. During this period any defect observed in the system shall be rectified within 2 days of the observation without any additional cost to the Bank.

(e) Supply and replacement of all spares, consumables and parts required for smooth operation and serviceability of the system shall be the responsibility of the contractor during this period. In this respect the contractor shall maintain sufficient spares/consumables for immediate replacement of defective / damaged part during day-to-day routine maintenance / breakdown maintenance. Cost of these spares and any other spares which may be required during maintenance is deemed to be included in the rates quoted by the contractor. The periodicity of service shall be monthly or more depending upon the weather conditions.

(f) Penalty for delay in rectification of fault during DLP:

There will be a penalty of **Rs. 500/- per day** subject to maximum of 50% of the annual maintenance charges, if the defect in the system is not rectified within the period of 2 days during the DLP period. Any penalty during the DLP shall be recovered from any dues payable to the contractor or invoke from the bank guarantee.

3.17.1 PV modules used in solar power systems / systems must be warranted for their output peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.

3.17.2 Penalty for Reduced Generation during initial 5 years:

As mentioned under the foregoing paragraphs, the successful tenderer is required to commit a guaranteed average annualized energy of specified KWH per year at synchronization point. Failure to do so will make the contractor liable to pay compensation at double the rate of the prevailing tariff of Electricity supply Agency for shortfall of every KWH or part thereof of the power generated.

Penalty shall be derived as per the following formula:

$$\begin{aligned}\text{Actual output for the year under reference} &= A \text{ (KWH)} \\ \text{Guaranteed output of the system as per the contract} &= B \text{ (KWh)} \\ \text{Compensation to be paid to the Bank in case of reduced generation (Rs)} \\ &= (B-A) \times (\text{Tariff} \times 2)\end{aligned}$$

3.18. Comprehensive Annual Maintenance Contract (CAMC) after DLP period

(g) The tenderers shall quote their charges separately for comprehensive annual maintenance service of complete system as per schedule of quantities which will be applicable after one year of defect liability period (DLP). The rates shall also include the charges for the insurance of the workmen for carrying out the above job and GST for maintenance shall be quoted in respective column in the BOQ.

(h) The system shall be inspected, upkeep/serviced periodically. The periodicity shall be **monthly or earlier** depending upon the weather conditions.

(i) The charges for comprehensive annual maintenance service shall include replacement of any part of the system, including all required spares, consumables etc during service contract period. Any defects in the system/sub-assemblies, found within the AMC period, shall be rectified/ replaced by the tenderer without any additional cost to the Bank

(j) Penalty for delay in rectification during CAMC:

During the comprehensive annual maintenance service period (after DLP period), any fault in the system shall be rectified within 2 days of receipt of intimation of the defect in the system. The quoted rates shall, therefore, take into account all the cost, including travel cost from the nearest service station. There will be a penalty of **Rs. 500/- per day** subject to maximum of 50% of the annual maintenance charges, if the defect in the system is not rectified within the period of 2 days during the AMC period as stated above. Any penalty during the DLP shall be recovered from any dues payable to the contractor or invoke from the bank guarantee.

(k) Payment of service charges during comprehensive annual maintenance service (CAMC):

The payment during the CAMC period shall be **made on half yearly basis** on rendering satisfactory service.

(l) The service contract shall be renewed for a further additional period of at least 8 years after the initial Comprehensive annual service contract period of one year after one-year warranty. While renewing the contract the new contract amount will be arrived at based on following formula:

$A_C = A_P [(15+60 \times (EPI_C/EPI_P) + 25 \times (CPI_C/CPI_P))] / 100$	
A_C	The contract amount for the current year.
A_P	The contract amount for the previous year.
EPI_C	Wholesale Price Index for Electrical Products 6 months prior to the commencement date of contract for the current year.
EPI_P	Wholesale Price Index for Electrical Products 6 months prior to the commencement date of contract for the previous year.
CPI_C	Consumer Price Index for Industrial Workers (All India Average) 6 months prior to the commencement date of contract for the current year.
CPI_P	Consumer Price Index for Industrial Workers (All India Average) 6 months prior to the commencement date of contract for the previous year.

The successful tenderer shall enter into an agreement for comprehensive annual maintenance contract of the system with the Bank.

Scope of works during CAMC

(A) The scope of work shall include the following:

- (i) Routine servicing/ troubleshooting/ setting/ adjustments/ cleaning/ checking of safeties etc. to ensure smooth and trouble free working of the system.
- (ii) Repairs/ replacement to the SPP including re-loading software etc. in the event of any malfunctioning including replacement of spares/ components/ sub-system/ cards/ and any other component, part or whole, which may need replacement/ repairs.
- (iii) Procurement, including Import, wherever required, of spares and stocking them shall be responsibility of the tenderer. Non availability of spares/ components will not be accepted as a reason for waiving of penalty towards delay in rendering prompt service.
- (iv) All manufacturers preventive maintenance schedules/ replacement periodicity of components like electrical/electronics parts including checking of safety devices, protections phase reversal, load testing etc. shall be strictly followed as per the manufacturer's periodicity or as required in addition to the scope of maintenance indicated above.
- (v) The scope of maintenance in addition to periodic maintenance will also include attending to any number of breakdown calls.
- (vi) Inspection along with measurement of earth resistance of all the earth stations and

report to be submitted to the concerned RBI office once in a year.

The contractor shall also ensure that the required spares etc. for proper maintenance are readily available with them for the complete life span of the system.

3.19 Packing and Despatch

The equipment shall be properly and securely packed in boxes and multiple handling and transportation by sea/ air / rail / road under Indian conditions. All equipment/components shall be delivered at Nalanda Residential Complex, Chembur.

3.20 Signing of Contract Agreement

3.20.1 The General instructions to the tenderers and special conditions, conditions hereinbefore referred to Conditions of Contract and Technical Specifications and drawings enclosed with the tender documents, minutes of pre-bid meeting, the subsequent correspondence exchanged between the Bank and the tenderer and the work order placed shall be the basis of the final contract to be entered into with the successful tenderer.

3.20.2 The Tenderer shall go through the terms and conditions given in the general conditions of contract, special conditions herewith and his offer shall be strictly in line with the terms specified therein. No deviation from the terms and conditions specified shall be acceptable. Each page of the tender documents should be signed for his/their having acquainted himself/themselves in the general conditions of contract, Technical specifications, etc.

3.20.3 The tender submitted on behalf of a firm shall be signed by all the partners of the firm or a partner who has the necessary authority on behalf of the firm to enter into the proposed contract. Otherwise the tender may be rejected.

3.20.4 On receipt of intimation from the Bank of the acceptance of his/their tender, the successful tenderer shall be bound to implement the Contract and within fourteen days thereof, the successful tenderer shall sign an agreement in accordance with the draft agreement. Notwithstanding the signing of the agreement the written acceptance by the Reserve Bank of India of a tender in itself will constitute a binding agreement between the Reserve Bank of India and the person so

tendering, whether such contract is or is not subsequently executed.

- 3.20.5 The contractor shall not assign the contract. He shall not sublet any portion of the contract except with the written consent of the Employer. In case of breach of these conditions, the Employer may serve a notice in writing on the Contractor rescinding the contract whereupon the security deposit shall stand forfeited to the Employer, without prejudice to his other remedies against the Contractor

3.21 Sufficiency of Schedule of Quantities

- 3.21.1 The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the prices stated in the Schedule of Quantities and/or the Schedule of Rates and Prices which rates and prices shall cover all his obligations under the Contract, and all matters and things necessary for the proper completion of the works.
- 3.21.2 The quantities in the schedule of quantities approximately indicate the total extent of work but may vary to any extent and even be omitted thus altering the aggregate value of the contract.

3.22 Language

The Tender including all labels in drawings, documents, catalogues etc. shall be in English.

3.23 Right to Accept Part Tender

The Bank reserves the right to accept the tender either in whole or in part at the same prices quoted by the Tenderer.

3.24 Evaluation of Tender

Tenders will be evaluated on the basis of capital cost of the system and taking into account the effect of comprehensive annual maintenance service charges (CAMC) for 9 years. Tenders will, therefore, be evaluated based on the total owning cost for 10 years which will be arrived at as under:

Total owing cost = Quoted capital cost + NPV of service contract charges for 9 years = Quoted capital cost + Quoted charges for Comprehensive maintenance service contract per annum x Multiplying Factor (MF)

(MF = 7.0476)

For calculating the NPV of service contract charges, the following factors have been applied:

(a)	Increase (Escalation)	5% per annum
-----	-----------------------	--------------

(b)	Discount factor	8% per annum
(c)	Period of contract	10 years from the date of handing over of the system.
(d)	Payment terms for annual maintenance contract.	Half yearly payment after satisfactory completion of service

Minimum Base Rate for Comprehensive AMC

Minimum Base Rate for Comprehensive AMC is 2% (Two) of total capital cost. In case, the tenderer quotes the rates for comprehensive AMC lower than 2% (Two) of the quoted capital cost, then the 2% (Two) of the quoted capital cost will be considered as AMC for calculation of Total Cost of Ownership.

Note: Notwithstanding the above, the Bank shall pay only the quoted rate of the AMC during the currency of the committed contract period subject to renewal formulae indicated in the tender.

3.25 Pre-dispatch Inspection

Before dispatching the equipment to site, the equipment, will be inspected at the discretion of the Bank and tested for various parameters by the Bank's Engineers at the manufacturer's works and then cleared for shipment. This will however, not in any way absolve the contractor of his responsibility for the continued performance of the system/components after erection & commissioning at the designated site during the period of defects liability.

3.26 Drawings

All required drawings for equipment lay out viz: layout of PV panels, interconnection with Power conditioning units etc., should be prepared by the tenderer and submitted to the Bank's engineer for approval before commencement of work.

3.27 Other Issues

The Contractor shall carry out all the work strictly in accordance with the approved drawing, detailed specifications and instructions of the Bank's engineer. If in the opinion of the Bank's engineer/consultant, nominal changes have to be made to suit the site condition and with the prior approval in writing of the Employer, the Contractor shall carry out the same without any extra charge.

3.28 The tenderers are requested to examine the drawings, inspect the site of the work, and acquaint themselves with all local conditions, means of access to the work,

nature of the work etc. before submission of tender.

- 3.29 A Schedule of Probable Quantities in respect of each work and Specifications accompany these Special Conditions. The Schedule of Probable Quantities is liable to alteration by omissions, deductions or additions at the discretion of the Employer. Each tender should contain not only the rates but also the value of each item of work entered in a separate column and all the items should be totalled in order to show the aggregate value of the entire tender.
- 3.30 The rates quoted in the tender shall include all charges for scaffoldings, watching and lighting by night as well as day including Sundays and holidays, protection of all other erections, matters or things and the Contractor shall take down and remove any or all such centering, scaffolding etc. as occasion shall require or when ordered so as to do, and fully reinstate and make good all matters and things disturbed during the execution of work and to the satisfaction of the Bank.
- 3.31 The contractor shall not be entitled to any compensation for any loss suffered by him on account of delays in commencing or executing the work, whatever the cause of delays may be, including delays arising out of modifications to the work entrusted to him or in any sub-contract connected therewith or delays in awarding contracts for other trades of the project or in commencement or completion of such works. The Employer does not accept liability for any sum besides the tender amount, subject to such variations as are provided for herein.
- 3.32 The successful tenderer is bound to carry out all items of work necessary for completion of the job even though such items are not included in the quantities and rates. Schedule of instruction in respect of such additional items and their quantities will be issued in writing by the Bank.
- 3.33 **Minimum wages/ Gratuity act / contract labour Act to the workmen:** The contractor shall ensure that minimum wages/ gratuity as per statutory requirement are paid to all the workmen.
- 3.34 **Labour License:** The contractor shall adhere to various provisions of the Contract Labour (Regulation & Abolition) Act 1970, if applicable under the said contract, and fulfil all the statutory requirements.
- 3.35 The successful tenderer must co-operate with the other contractors appointed by the Bank so that the work shall proceed smoothly with the least possible delay.

Witness

Signature of tenderer

Address and Date

Address and Date

Section (IV)

Safety Code

1. First-aid appliances, including adequate supply of sterilized dressings and cotton wool, shall be maintained in a readily accessible place.
2. The injured person shall be taken to a public hospital without loss of time, in cases where the injury necessitates hospitalisation.
3. Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from ground.
4. No portable single ladder shall be over 8 meters in length, the width between the side rails not less than 30 cm (clear) and the distance between two adjacent rungs shall not be more than 30 cm. When a ladder is used, an extra mazdoor shall be engaged for holding the ladder.
5. The excavated material shall not be placed within 1.5 meters of the edge of the trench or half of the depth of the trench, whichever is more. All trenches and excavations shall be provided with necessary minimum height shall be one metre.
6. Every opening in the floor of a building or a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be one metre.
7. No floor, roof or other part of the structure shall be so over-loaded with debris or materials as to render it unsafe.
8. Workers employed on mixing and handling material such as asphalt, cement, mortar or concrete and lime mortar shall be provided with protective footwear and rubber hand-gloves.
9. Those engaged in welding works shall be provided with welder's protective eye-shields and gloves.
10. No paint containing lead or lead products shall be used except in the form of paste or readymade paint.
11. Suitable face masks should be supplied for use by the workers when the paint is applied in the form of spray or surface having lead paint dry rubbed and scrapped.
12. Hoisting machines and tackles used in the work, including their attachments, anchorage and supports shall be in perfect condition.
13. The ropes used in hoisting or lowering material or as a means of suspension shall be of durable quality and adequate strength and free from defects.

FIRE SAFETY

- i. Cutting / drilling machine and other electrically operated equipments used at site shall be plugged into correctly rated electrical outlets.
- ii. Only ISI marked 3 pin plug and other appliances and equipments shall be used.
- iii. Electrical power cables/wires used shall not have any joints and shall be properly rated.
- iv. All electrical appliances i.e. welding, drilling, cutting machine etc. shall be safely and securely earthed to prevent leakage current while in operation .
- v. Before commencing the welding work for the first time on any day, fire section shall be informed and only after the site inspection by the Fire officers/Personnel, work shall be started.
- vi. Two buckets of water and sand shall be kept in an easily accessible area on the site.
- vii. Fire extinguishers recommended and issued by fire officers shall be kept on the site.
- viii. Used paint drums shall be stored in specified store only after closing them properly.
- ix. Personal protective equipments such as safety shoes, hand gloves, welder's mask, ear plug etc. depending upon the requirement of the work shall be provided by the contractor to the workmen to prevent occupational health hazards.
- x. The safety belt shall be provided by the contractor and used by the workmen while working from height for more than 10' from Ground level.
- xi. None of the passages near lift lobby and staircases shall be used for stacking / dumping any kind of materials/waste.
- xii. Both the staircase doors shall be normally kept closed.
- xiii. None of the fire extinguishers shall be removed/shifted from its designated location.
- xiv. Power supply shall be switched off from the mains when equipment is not in use.
- xv. Wood-shavings and saw-dust generated from the work shall be collected on daily basis , removed from site and stored at the designated place in proper manner.
- xvi. Any debris generated from the work shall be collected on daily basis, removed from site and stored at the designated place in proper manner.
- xvii. Battery operated emergency light/torches shall be provided by the contractor to the workmen while working beyond office hours.

Place:

Date:

Seal & Signature of the tenderer.

Section-V
The Conditions Hereinbefore Referred To

1. In constructing these conditions, the specification, schedule of quantities and Contract Agreement, the following words shall have the meaning herein assigned to them except where subject or context otherwise requires.

- | | |
|---------------------------|--|
| a) "Employer" | Shall mean the Reserve Bank of India and shall include its assignees and successors. |
| b) In the case of company | "Contractor shall mean _____ a company incorporated under _____ and having its registered office at _____ and shall include its successors and assigns. |
| c) "Site" | Shall mean the site of the contract works including any building and erection thereon and any other land (inclusively) as aforesaid allotted by the Employer for the Contractor's use. |
| d) "This Contract" | Shall mean the Article of Agreement, the special conditions, the conditions, the Appendix, the schedule of quantities and specifications attached hereto and duly signed. |
| e) "Notice in writing" | Shall mean a notice in written, typed or printed or written notice" characters sent (unless delivered personally otherwise proved to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered. |
| f) "Act of Insolvency" | Shall mean any Act of insolvency as defined by the Presidency Town Insolvency Act, or the provincial insolvency Act or any Act amending such original Act. |
| g) "Net Prices" | If in arriving at the contract amount the Contractor shall have added to or deducted from the total of items in the Tender any sum, either as a percentage or otherwise, then net price of any item in their tender shall be the sum arrived at by adding to or deducting from the actual figures appearing in the Tender as the price of that the item a similar percentage or proportionate sum provided always that in determining the percentage or proportion of the sum so added or deducted by the Contractor the total amount of the any Prime Cost items and provisional sums of money shall be deducted from the total amount of the tender. The expression "net rates" or "net prices" when used with |

reference to the contract or account shall be held to mean rates or prices so arrived at.

h) "The works"

Shall mean Tender for Design, supply, installation, testing and commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur

2. **Scope of Contract:** The contractor shall carry out and complete the said work in every respect in accordance with this contract and with the directions of and to the satisfaction of the Bank's Engineer. The Bank's Engineer may in his absolute discretion and from time to time issue further drawings and/or written instructions, details, direction and explanations which are hereafter collectively referred to as "Bank's Engineer's instruction in regard to":

- a) The variations or modifications of the design, quality or works or the addition or omission or substitutions of any work.
- b) Any discrepancy in the Drawing or between the Schedule of Quantities and/or Drawing and/or specifications.
- c) The removal from the site of any materials brought thereon by the contractor and the substitution of any other material therefor.
- d) The removal and/or re-execution of any works executed by the contractor.
- e) The dismissal from the works of any persons employed thereupon.
- f) The opening up for inspections of any work covered up.
- g) The amending and making good of any defects under clause 20 hereof.

The contractor shall forthwith comply with and duly execute any work comprised in such Bank's Engineer's instructions provided always that verbal instructions, directions and explanations given to the Contractor or his representative upon the works by the Bank's Engineer shall, if involving a variation, be confirmed in writing by the Contractor within seven days, such shall be deemed to be Employer's instructions within the scope of the Contract.

The contractor shall submit a statement of variations giving quantity and rates duly supported by analysis of rates, vouchers etc. The rates on scrutiny and final acceptance by the Employer shall form a supplementary tender. The Employer shall not be liable for payment of such variations until these statements are sanctioned by him.

- 3. The Contract shall be executed in triplicate and the Bank's Engineer, the Employer and the Contractor shall be entitled to one executed copy each for his use. The contractor shall prepare the line diagram, system configuration drawing and Lay out plan of the site for carrying out the work. Before the issue of the final certificate to the Contractor he shall submit to the Bank's Engineer all Drawings and Specifications.
- 4. The Contractor shall provide at his cost everything necessary for the proper execution of the works according to the intent and meaning of the Drawings, Schedule of Quantities and specifications taken together, whether the same may or may not be particularly shown or described therein provided that the same can reasonably be

inferred therefrom, and if the Contractor finds any discrepancy in the Drawings or between the Drawings, Schedule of quantities and Specifications, he shall immediately and in writing refer the same to the Bank's Engineer, who shall decide which is to be followed.

5. **Authorities, notices and patents:** The Contractor shall conform to the provisions of any Act of the Legislature relating to the works, and to the regulations and bye-laws of any authority, and of any water, electricity supply and other companies and/or authorities with whose system the structure is proposed to be connected, and shall, before making any variations from the Drawings or Specifications that may be necessitated by so conforming, give to the architect written notice, specifying the variation proposed to be made and the reason for making it and apply for instructions thereon. In case the Contractor shall not within ten days receive such instructions he shall proceed with the work conforming to the provisions, regulations, or bye-laws in question, and any variation so necessitated shall be dealt with under clause 17 hereof.

The contractor shall bring to the attention of the Employer all notices required by the said Acts, regulations or bye-laws to be given to any authority and pay to such authority or to any public office all fees that may be properly chargeable-in respect of the works and lodge the receipts with the Employer.

The Contractor shall indemnify the Employer against all claims in respect of patent rights and shall defend all actions arising from such claims and shall himself pay all royalties, license fees, damages cost and charges of all and every sort that may be legally incurred in respect thereof.

6. **Setting out of work:** The contractor shall set out the works and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions levels, dimensions and alignment of all parts thereof. If at any time any error in this respect shall appear during the progress of the works or within a period of one year from the completion of the works, the Contractor shall, if so required, at his own expense rectify such error to the satisfaction of the Bank's Engineer.
7. **Materials and Workmanship to conform to description:** All materials and workmanship shall so far as procurable be of the respective kinds described in the Schedule of Quantities and/or specifications and in accordance with the contract and the Contractor shall furnish to the Employer with all invoices, accounts, receipts and other vouchers to prove that the materials comply therewith. The Contractor shall at his own cost arrange for and/or carry out any test of any materials.
8. **Contractor's superintendence and representative on the works:** The Contractor shall give all necessary personal superintendence during the execution of the works and so long thereafter as the Employer may consider necessary until the expiration of the "Defects Liability Period" stated in the tender. The contractor shall, also during the whole time the works are in progress employ a competent representative who shall be constantly in attendance at the works while the men are to work. Any directions, explanations, instructions or notice given by the Bank's Engineer to such representative shall be held to be given to the Contractor.
9. **Dismissal of workmen:** The Contractor shall on the request of the Bank's Engineer

immediately dismiss from the works any person employed thereon by him who may, in the opinion of the Bank's Engineer, be incompetent or misconduct himself and such persons shall not be again employed on the works without the permission of the Bank's Engineer.

10. **Access to works:** The Employer, shall at all reasonable times, have free access to the works and/or to the workshops, factories or other places where materials are lying or from which they are being obtained and the Contractor shall give every facility to the Employer necessary for Inspections and examination and test of the materials and workmanship. No person not authorised by the Employer except the representatives of public authorities shall be allowed on the works at any time.
11. **Bank's Engineer:** The term Bank's Engineer shall mean the person appointed and paid by the Employer to inspect the works. The Contractor shall afford the Bank's Engineer every facility and assistance for inspecting the works and materials and for checking and measuring time and materials.

The Bank's Engineer, or the Employer shall have power to give notice to the Contractor or to his representative of non-approval or any work or materials and such work shall be suspended or the use of such materials shall be discontinued. The work will from time to time be examined by the Banks Engineer but such examination shall not in any way exonerate the Contractor from the obligation to remedy any defects which may be found to exist at a stage of the works or after the same is completed. Subject to the limitations of this clause the Contractor shall take instructions only from the Bank's Engineer.

12. **Assignment and Subletting:** The whole of the works included in the Contract shall be executed by the Contractor and the contractor shall not directly or indirectly transfer, assign or under-let the Contract or any part share thereof or any interest therein without the prior written consent of the Employer and not undertaking shall relieve the Contractor from the full and entire responsibility of the Contract or from active superintendence of the works during their progress.
13. No alteration, omission or variation shall vitiate this contract but in case the Bank's Engineer thinks proper at any time during the progress of the works to make any alterations in, or addition to, or omissions from the works or any alteration in the kind of quality of the materials to be used therein and shall give notice thereof in writing under his hand to the Contractor, the Contractor shall alter, add to, or omit from, as the case may be, in accordance with such notice, but the contractor shall not do any work extra to or make any alterations or additions to or omissions from the works or any deviation from any of the provisions of the Contract. Stipulations, specifications or Contract Drawings without the previous consent in writing of the Employer and the value of such extras alterations, additions or omission shall, in all cases, be determined by the Employer in accordance with the provisions of Clause 17 hereof, and the same shall be added to, or deducted from the Contract Amount, as the case may be accordingly.
14. **Schedule of Quantities:** The Schedule of quantities, unless otherwise stated shall be deemed to have been prepared in accordance with the Standard Method of Measurement.

Any error in description or in quantity or in omission of items from the schedule of quantities shall not vitiate this contract but shall be rectified and the value thereof, as ascertained under Clause 17 hereof, shall be added to, or deducted from the Contract Amount (as the case may be) provided that no rectification of errors, if any, shall be allowed in the Contractor's schedule of rates.

15. **Sufficiency of Schedule of Quantities**: The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the prices stated in the Schedule of Quantities and/or the schedule of rates and prices which rates and prices shall cover all his obligations under the contract, and all matters and things necessary for the proper completion of the works.
16. **Measurement of works**: The Bank's Engineer may, from time to time, intimate to the contractor that he requires the works to be measured, and the Contractor shall forthwith attend or send a qualified agent to assist Assistant Engineer in taking such measurements and calculations and to furnish all particulars or to give all assistance required by any of them.

Should the Contractor not attend or neglect or omit to send such agent then the measurement taken by the Bank's Engineer or a person approved by him shall be taken to be correct measurement of the works. Such measurements shall be taken in accordance with the Mode of Measurements detailed in the Specifications.

The Contractor or his Agent may at the time of measurement take such notes and measurement as he may requires.

All authorised extra works, omissions and all variations made with the prior approval in writing of Employer shall be included in such measurements.

17. **Prices for extra** : The Contractor may, when authorised and shall, when directed, in writing by the Employer, add to, omit from or vary the works shown upon the drawings, or described in the specification, or included in the schedule of Quantities, but the contractor shall make no addition, omission or variation without such authorization or direction. A verbal authority or direction by the Bank's Engineer shall, if confirmed by them in writing within seven days, be deemed to have been given in writing.

No claim for an extra shall be allowed unless it shall have been executed under provisions of clause above hereof with the concurrence of the Employer herein mentioned. Any such extra in herein referred to as authorized and shall be made in accordance with the following provisions.

- (a) (i) The net rates or prices in the original tender shall determine the valuation of the extra work where such extra work in similar character and executed under conditions as the work priced therein.
- (ii) Rates for all items, wherever possible should be derived out of the rates given in the priced Schedule of Quantities.
- (b) The net prices of the original tender shall determine the value of items omitted provided if omissions vary the conditions under which any remaining items of works are carried out, the prices for the same shall be valued under sub-clause(c) hereof.

(c) Where the extra works are not of similar character and/or quoted under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items of works are carried out or if the amount of any omissions or additions relative the amount of the whole of the Contract works or to any part thereof shall be such that in the opinion of the Bank's engineer, the net rate or price contained in the priced Schedule of Quantities or tender or for any item of the works involves loss or expenses beyond that reasonably contemplated by the contractor or is by reason of such omission or addition rendered unreasonable or inapplicable, the Bank's Engineer shall fix such other rate or price as in the circumstances he shall think reasonable and proper, with the prior approval in writing of the Employer.

(d) Where extra work cannot be properly measured or valued, the Contractor shall be allowed day work prices as the net rates stated in the tender or the Priced Schedule or Quantities or, if not so stated, then in accordance with the local day work rates and wages for the district provided that in either case vouchers specifying the daily time (the workmen's names) and materials employed be delivered for verification to the Bank's Engineer at or before the end of the week following that in which the work has been executed plus 15% towards establishment charges, contractor's overhead and profits.

The measurement and valuation in respect of the Contract shall be completed within the "period of final measurements" stated in the tender or if not stated then within six months of the completion of the Contract works as defined in Clause 21 hereof.

18. Unfixed materials when taken into account to be the property of the Employer

Where in any certificates (of which the Contractor has received payment) the Bank's Engineer has included the value of any unfixed materials included for and/or placed on or adjacent to the works such materials shall become the property of the Employer and they shall not be removed except for use upon the works, without the written authority of the Employer. The Contractor shall be liable for any loss of, or damage to, such materials.

19. **Removal of improper work** : The Employer shall, during the progress of the works, have power to order in writing from time to time the removal from the works within such reasonable time or times as may be specified in the order of any materials which in the opinion of the Bank's Engineer are not in accordance with the Specifications, the substitutions of proper materials, and the removal and proper re-execution of any work executed with materials or workmanship not in accordance with the drawings & specifications or instructions and the contractor shall forthwith carry out such order at his own cost. In case of default on the part of Contractor to carry out such order, the Employer shall have the power to employ any pay other persons to carry out the same; and all expenses consequent thereon, or incidental thereto, shall be borne by the Contractor, or may be deducted by the Employer from any moneys due, or that may become due, to the Contractor.

20. **Defects after virtual completion** : Any defect, shrinkage, settlement or other fault which may appear within the "Defects Liability Period" stated in the tender, or, if none stated them within twelve months after the virtual completion of the works, arising in

the opinion of the Employer from materials of workmanship not in accordance with the contract, shall upon the direction in writing of the Employer, and within such reasonable time as shall be specified therein, be amended and made good by the Contractor, at his own cost and in case of default the Employer may employ and pay other persons to amend and make good such defects, shrinkage settlements or other faults, and all damages loss and expenses consequent thereon are incidental thereto shall be made good and borne by the Employer or may be deducted by the Employer, upon the Bank's Engineer's Certificate in writing, from any money due or that may become due to the Contractor, or the Employer may in lieu of such amending and making good by the Contractor deduct from any money due to the Contractor a sum, to be determined by the Employer equivalent to the cost of amending such work and in the event of the amount retained under clause 32 hereof being insufficient, recover the balance from the Contractor, together with any expenses the Employer may have incurred in connection therewith. Should any defective work have been done or materials supplied by any sub-contractor employed on the works who has been nominated as provided under clause 12 and 22 hereof, the contractor shall be liable to make good in the same manner as if such work or material had been done or supplied by the Contractor and been subject to the provision of this clause 2 hereof. The contractor shall remain liable under the provisions of this clause the signing of any certificate or the passing of any accounts by the Employer.

21. **Certificate of virtual completion and defects liability period:** The works shall not be considered as completed until the Bank's Engineer has certified in writing that they have been virtually completed. The defects liability period shall commence from the date of such certificates.
22. **Nominated Sub-Contractor:** All Specialists, Merchants, Tradesmen and others executing any work of supplying and fixing any goods for which the prime cost prices or provisional sums are included in the Schedule of Quantities and/or Specifications who may be nominated or selected by the Employer or hereby declared to be sub-contractors employed by the contractor and are herein referred to as nominated sub-contractors.

No nominated sub-contractors shall be employed on or in connection with the works against the Contractor shall make reasonable objection are (save where the Architect and the Contractor shall otherwise agree) who will not enter into contract providing.

- (a) That the nominated sub-contractor shall indemnify the contractor against the same obligation in respect of the sub-contract as the contractor is under in respect of this contract.
- (b) That the nominated sub-contractor shall indemnify the contractor against claims in respect of any negligence by the sub-contractors his servants or agents or any misuse by him or them or any scaffolding or other plant, the property of the Contractor or under any Workmen's Compensation Act in force.
- (c) Payment shall be made to the nominated sub-contractor within fourteen days of his receipt of the Employer's Certificate provided that before any Certificate is issued the Contractor shall upon request furnish to the Bank proof that all nominated sub-contractors accounts included in previous certificates have been duly discharged; in default whereof the Employer may pay the same upon a Certificate of the Bank and deduct the amount thereof from any sums due to the Contractor. The exercise of this power shall not create private of contract as between Employer and Sub-Contractor.

23. **Other persons employed by Employer:** The Employer reserves the right to use premises and any portion of the site for the execution of any work not included in this Contract which it may desire to have carried out by other persons, and the Contractor shall allow all reasonable facilities for the execution of such work but shall not be required to provide any plant or material for the execution of such work except by special arrangement with the Employer. Such work shall be carried out in such manner as not to impede the progress of the works included in the Contract and the Contractor shall not be responsible for any damage or delay which may happen to or occasioned by such work.

24. **Insurance in respect of damage to person and property:**

The Contractor shall be responsible for all injury to persons, animals or things, and for all structural and decorative damage to property which may arise from the operation or neglect of himself or of any nominated sub-contractor or any employee of either, whether such injury or damage arises from carelessness accident or any other clause whatever in any connected with the carrying out of this Contract. This clause shall be held to include inter alia, any damage to buildings, whether immediately adjacent or otherwise, and any damage to road, streets, foot-paths, bridges or ways as well as damage caused to the buildings and works forming the subject of this contract by frost, rain, wind or other inclemency of weather. The Contractor shall indemnify the Employer and hold it harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any acts of any legislature or otherwise and also in respect of any award or compensation or damages consequent upon such claim.

The Contractor shall reinstate all damage of every sort mentioned in this clause, so as to deliver up the whole of the Contract works complete to and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

An insurance policy covering third party liability shall be taken by the contractor to cover the loss/disablement of human life (persons not belonging to the contractor). This shall also cover the risk of damages to other's materials/equipment/properties including those, if any of the banks during construction/erection/commissioning of the said contract work at site. The value of third party liability for compensation for loss of human life or full /partial disablement shall be of required statutory value for full and partial disablement and shall nevertheless cover such compensation as may be awarded by a court of law. Cover for damage to other's equipment/property shall be as approved by the bank. The sub-contractors of the contractor shall not be holders or beneficiaries in the policy nor shall they be named in the policy. The bank shall be the holder of the policy along with the contractor. The bank reserves the exclusive right to assign the policy.

The Contractor shall indemnify the Employer against all claims which may be made against the Employer by any member of the public or other third party in respect of anything which may arise in respect of the works or in consequences thereof and shall at his own expenses arrange to effect and maintain, until the virtual completion of the contract, with an approved office a policy of insurance in the joint names of the

Employer and the Contractor against such risks and deposit such policy or policies with the Architect from time to time during the currency of this contract. The Contractor shall also similarly indemnify the Employer, against all claims which may be made upon the Employer whether under the Workmen's Compensation Act or any other status in force during the currency of this contract or at common law in respect of any employee of the Contractor or any Sub-Contractor and shall at his own expenses effect and maintain, in the joint names of the Employer and the Contractor against such risks and deposit such policy or policies with the Architect from time to time during currency of the Contract.

The Contractor shall be responsible for any liability which may be executed from the Insurance Policies above referred to and also for all other damage to any person, animal or property arising out of the incidental to the negligent or defective carrying out of this Contract transit, storage, erection, testing & commissioning policy. He shall also indemnify the Employer in respect of any costs, charges or expenses arising out of any claim or proceedings and also in respect of any award of compensation or damages arising therefrom.

The Employer shall be entitled to deduct the amount of any damage, compensation, costs, charges and expense arising of accruing from or in respect of any such claims or damage from any or all sums due or to become due to the Contractor without prejudice to the Employer's other rights in respect thereof.

25. **Date of commencement and completion:** The Contractor shall be allowed admittance to the site on "Date of Commencement" stated in the Appendix hereto, or each later date as may be specified by the Employer and be shall thereupon and forthwith begin the works and shall regularly proceed with and complete the same (except such painting or other decorative work as the bank may desire to delay) or before the "Date of Completion" stated in the Appendix subject nevertheless to provisions for extension of time hereinafter contained.
26. **Damages for non-completion:** If the Contractor fails to complete the works by the date stated in the Appendix or within any extended time under Clause 27 and 20 here the Contractor shall pay the Employer the sum named in the Appendix as " Liquidated Damages" for the period during which the said works shall so remain incomplete and the Employer may deduct such damages from any money due to the Contractor.
27. **Delay and extension of time:** If in the opinion of the Employer the works be delayed(a) by force major or (b) by reason of any exceptionally inclement weather or c) by reason of proceedings taken or threatened by or dispute with adjoining or neighboring owners or public authorities arising otherwise than through contractor's own default or (d) by the works or delays of other contractor or Tradesmen engaged or nominated by the Employer and not referred to in the schedule of quantities and/or specifications or (e) by reasons of Bank's Engineer instruction as per clause 17 hereof (f) by reason of civil commotion, local combination of workmen or strike or lockout affecting any of the building trades or (g) in consequence of the Contractor not having received in due time necessary instructions from the Bank for which he shall have specifically applied in writing or (h) from other causes which the Bank may certify as beyond the control of contractor or (I) in the event, the value of the work exceed the value of the Priced Schedule of Quantities owing to variation, the Bank may make a

fair and reasonable extension of time for completion shall as soon as may be given written notice thereof to the bank but the Contractor shall nevertheless constantly use his endeavors to prevent delay and shall do all that may reasonably has required to the satisfaction of Bank to proceed with work.

28. **Contractor's failure to comply with Employers instruction:** If the Contractor after receipt of written notice from the Employer requiring compliance within 10 days fails to comply with such further drawings and/or Bank's instructions the Employer may employ and pay other persons to execute any such work whatsoever that may be necessary to give effect thereto, and all costs incurred in connection therewith shall be recoverable from the Contractor by the Employer as a debt or may be deducted by him from any moneys due to the Contractor.
29. **Termination of Contract by the Employer:** If the Contractor being an individual or a firm commits any "act of insolvency" or shall be adjudged an insolvent or being an incorporated company shall have an order for compulsory winding up made against it or pass an effective resolution for winding up voluntarily or subject to the supervisions of the court and the Official Assignee or the Liquidator in such acts of insolvency or winding up, as the case may be, shall be unable within seven days after notice to him requiring him to do so to show the reasonable satisfaction of the Architect that he is able to carry out and fulfill the Contract and to give security therefore, if so required by the Architect.

Or if the Contractor (whether an individual, first or incorporated company shall suffer execution or other process of court attaching property to be issued against the Contractor.

Or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the Contractors.

Or shall assign to sublet this Contract without the consent in writing of the Employer first had and obtained.

Or shall charge or encumber this Contract or any payments due or which may become due to the Contractor hereunder.

- (i) Has abandoned the Contract, or
- (ii) Has failed to commence the works, or has without any lawful excuse under these conditions suspended the progresses of the works for fourteen days after receiving from the Bank notice to proceed or
- (iii) Has failed to proceed with the work with such due diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or
- (iv) Has failed to remove materials from the site or to pull down and replace work for seven days receiving from the Bank written notice that the said materials or work were condemned and rejected by the Bank's Engineer under these conditions' or
- (v) Has neglected or failed persistently to observe and perform all of any of the acts, matter or things by the Contract to be observed and performed by the Contractor for seven days after written notice shall have been given to the Contractor requiring the Contractor to observe or perform the same.

- (vi) Or breach of any terms and condition

Then and in any of the said cases the Employer may, notwithstanding any previous waiver, after giving seven days' notice in writing to the Contractor, determine the Contract, the whole of which shall continue in force as fully as if the Contract has not been so determined, and so if the works subsequently execute had been executed by or on behalf of the Contractor. And further, the Employer by his agents or servants may enter upon and taken possession of the works and all plant, tools scaffoldings, sheds, machinery, steam and other power utensils and materials lying upon the premises or the adjoining lands or roads, and use the same as his own property or may employ the same by means of his own servants and workmen in carrying on and completing the work or by employing any other Contractor or other person or persons to complete the works, and the Contractor shall not in any way interrupt or do any act matter or thing to prevent or hinder such other contractor or other person or persons employed for completing and finishing or using the materials and plant for the works. When the works shall be completed or as soon thereafter as convenient the Bank shall give a notice in writing to the Contractor to remove his surplus materials and plant, and should the Contractor fail to do so within a period of fourteen days after receipt thereof by him, the Employer may sell the same by public auction, and give credit to the Contractor for the net amount realized. The employer shall thereafter ascertain and certify in writing under his hand what of the said plant and materials so taken possessions or by the Employer and the expenses or loss which the Employer shall have been put to in procuring the works to be completed and the amount. If any, owing the Contractor and the amount which shall be so certified shall thereupon be paid by the Employer to the Contractor or by the Contractor to the Employer, as the case may be, and the Certificate of the Bank shall be final and conclusive between the parties.

30. **Termination of Contract by Contractor:** If this payment of the amount payable by the Employer under Certificate of the Bank's Engineer shall be in arrears and unpaid for thirty days after notice in writing requiring payment of the amount as aforesaid shall have been given by the Contractor to the Employer, or if the Employer interferes with or obstructs the issue of any such Certificate, or if the Employer shall repudiate the Contract, or if the works be stopped for three months under the order of the Architect or the Employer or by any injunction or other order of any court of Law, then and in any of the said cases the Contractor shall be in liberty to determine the Contract by notice in writing to the Employer, and he shall be entitled to recover from the Employer, payment for all works executed and for any loss he may sustain upon any plant or materials supplied or purchased or prepared for the purpose or the Contract.

In arriving at the amount of such payment the net rates contained in the Contractor's original Tender shall be followed or where the same may not apply valuation shall be made in accordance with Clause 17 hereof.

31. **Certificates and Payments:** The Contractor shall be paid by the Employer from time to time by installments under interim Certificate to be issued by the Bank's Engineer on account of the works executed work to the approximate value named in the tender as 'Value of work for Interim Certificate' has been executed in accordance with this Contract, subject, however, to a retention of the percentage of such value named in

the tender as "Total Retention Money" after which time the installments shall be up to the full value of the work subsequently so executed and fixed in the building. And when the works have been virtually completed, the Contractor shall be paid by the Employer in accordance with the Certificate to be issued by the Bank's Engineers the sum of money named in the Appendix as "installment after Virtual Completion" being a part of the said Total Retention Money. And the Contractor shall be entitled to the payment of the Final Balance in accordance with the final Certificate at the expiration of the period referred to as 'the Defects liability Period' in the Appendix hereto from the date of virtual completion or as soon as after expiration of such period as the works shall have been finally completed and all defects made good according to the true intent and meaning hereof whichever shall last happen provided always or at or after their completion shall not relieve the Contractor from his liability under clause 21 and 36 nor relieve the Contractor of his inability in cases of fraud, dishonesty, or fraudulent concealment relating to the works or materials or to any matter dealt with in the Certificate and in case of the all defects and insufficiencies in the works or materials which a reasonable examination would not have disclosed.

The Employer shall have power to withhold any Certificate if the works or any parts thereof are not being carried out to his satisfaction.

32. **Delayed Payment:** Any amounts payable by the Employer to the Contractor shall, if not paid within the 'period of honoring Certificates' names in the tender carry interest at the rate named in the tender as the "Rate of interest for delayed payment" from the date upon which sum ought to have been paid by the Employer until the payment.
33. The decision, opinion, direction Certificate (except for payment) with respect to all or any of the matters under Clauses 2(a,b), 4,5, 14, 20 (a,b,c,d and f) hereof (which matters are herein referred to as the excepted matters) shall be final and conclusive and binding on the parties hereto and shall be without appeal. Any other decision, opinion, direction, shall be subject to the right of Arbitration and review under the Clause 35 hereof in the same way in all respects (including the provisions as to opening the reference).
34. **Settlement of disputes by Arbitration:** All disputes and differences of any kind whatever arising out of or in connection with the contract or the carrying out of the works (whether during the progress of the works or after the completion and whether before or after the determination abandonment or breach of the contract) shall be referred to and settled by the Bank who shall state its decision in writing. Such decision may be in the form of a final certificate or otherwise. The decision of the Bank with respect to any of the excepted matters shall be final and without appeal as stated in Clause 33 hereof. But if either the Contractor be dissatisfied on any matter on which a decision is taken by the Bank as above, except any of the expected matter the Contractor may within 28 days after receiving notice of such decision give a written notice to the other party requiring that the matters in dispute be arbitrated upon. Such written notice shall specify the matters, which are in dispute or difference of which such written notice has been given. If both the parties agree, a single arbitrator would be appointed for the purpose. In case no agreement could be reached on the appointment of single arbitrator, both the parties will nominate one person each as an arbitrator on their behalf. The two arbitrators nominated by the parties shall nominate one more person to act as third arbitrator or umpire.

The arbitrator or Arbitrators, as the case may be, shall have power to open up, review and revise any certificate, opinion, decision, requisition or notice, save in regard to the excepted matters, referred to in the preceding clause, and to determine all matters to dispute which shall be submitted to arbitration and of which notice shall have been given as aforesaid.

The arbitrator or Arbitrators, as the case may be, shall make his or their award within one year (or such further extended time as may be decided by him or them as the case may be with the consent of the parties) from the date of entering on the reference. In case during the arbitration proceedings the parties mutually settle or compromise their dispute or difference, on the parties filing their joint memorandum of the settlement or compromise, the Arbitrator or the Arbitrators as the case may be, shall make an award in terms of such settlement or compromise.

Upon any such reference, the decision on the cost incidental to the reference and Award respectively shall be in the discretion of the arbitrator or Arbitrators as the case may be, who may determine the amount thereof or direct the same to be taxed as between the party and party, and shall direct by whom and to whom and in what manner the same shall be borne and paid.

This submission shall be deemed to be a submission to arbitration within the meaning of the Indian Arbitration and Conciliation Act, 1996 or any statutory modification thereof.

The award of the arbitrator or Arbitrators, as the case may be, shall be final and binding on the parties. It is agreed that the Contractor shall not delay the carrying out of the works by reason of any such matter, question or dispute being referred to arbitration, but shall proceed with the works with all due diligence and shall until the decision of the Arbitrator or Arbitrators, as the case may be, is given, abide by the decision of the Bank. No award of the Arbitrator or Arbitrators, as the case may be, shall relieve the Contractor of his obligations to adhere strictly to the Bank's instructions with regard to the actual carrying out of the works. The Employer and the Contractor hereby also agree that arbitration under this Clause shall be a condition precedent to any right of action under the Contract.

Right of technical scrutiny of final bill

35. The Employer shall have a right to cause a technical examination of the works and the final bill of the contractor including all supporting vouchers, abstracts, etc. to be made at the time of payment of the final bill. If as a result of this examination of otherwise any sum is found to have been overpaid or over certified it shall be lawful for the employer to recover the sum.

Employer entitled to cover compensation paid to workman

36. If, for any reason, the Employer is obliged, by virtue of the provisions of the Workmen's Compensation Act, 1923, or any statutory modification or re-enactment thereof to pay compensation to a workman employed by the Contractor in execution of the works, the Employer shall be entitled to recover from the Contractor the amount of compensation so paid, and without prejudice to the rights of the Employer under the said Act. The Employer shall be at liberty to recover such amount or any

part thereof by deducting it from the security deposit or from any sum due by the Employer shall not be bound to contest any claim made against it under the said Act, except on the written request of the Contractor and upon his giving to the Employer full security to the satisfaction of the Employer for all costs for which the Employer might become liable in consequence of contesting such claim.

Abandonment of works

37. If at any time after the acceptance of the tender, the Employer shall for any reasons whatsoever not requires the whole or any part of the works to be carried out, the Bank shall give notice in writing to the Contractor who shall have no claim to any payment of compensation or other-wise whatsoever on account of any profit or advantage which he might have derived from the execution of the whole works.

Return of surplus materials

38. Notwithstanding anything to the contrary contained in any or all the clauses of this Contract, where any material for the execution of the Contract is procured with the assistance of the Employer by purchase made under orders or permits or licenses issued by Government, the Contractor shall hold the said materials economically and solely for the purpose of the Contract and not dispose of them without the prior written permission of the Employer and return it to the Employer, if required by the Employer, at the price to be determined by the Bank having due regard to the conditions of the materials, the price to be determined not be exceed the purchase price thereof inclusive of sales tax, octroi and other such levies paid by the Contractor in respect thereof, in the event of breach of the aforesaid condition, the Contractor shall in addition to being liable to action for contravention of the terms of licenses or permit and/or criminal breach of trust, be liable to Employer for all moneys, advantages or profits resulting or which in the usual course would have resulted to his by reason of such breach.

Right of employer to terminate contract in the event of death of Contractor or individual

39. Without prejudice to any of the rights or remedies under this Contract, if the Contractor, being an individual, dies, the Employer shall have the option of terminating the contract without incurring any liability for such termination.

40. **Non-disclosure clause.**

The contractor shall not disclose directly or indirectly any information, materials and of the Bank's infrastructure/ system/equipments etc. which may come to the profession or knowledge of the contractor during the course of discharging its contractual obligations in connection with the agreement, to any third party and shall at all times hold the same in strictest confidence. The contractor shall treat the details of the contract as private and confidential, except to the extent necessary to carry out the obligations under it or to comply with applicable laws. The contractor shall not publish, permit to be publish, or disclose ant particulars of the works in any trade or technical paper or elsewhere without the previous written consent of the Employer. The contractor shall indemnify the Employer for any loss suffered by the Employer as

a result of disclosure of any confidential information. Failure to observe the above shall be treated as breach of contract on the part of the contractor and the Employer shall be entitled to claim damages and pursue legal remedies. The contractor shall take all appropriate actions with respect to its employees to ensure that the obligations of non-disclosure of confidential information under this agreement are fully satisfied.

The contractor's obligations with respect to non-disclosure and confidentiality will survive the expiry or termination of this agreement for whatever reason.

41. Prevention of Sexual harassment Clause

The contractor shall comply to the provisions of Prevention of Sexual Harassment at workplaces Act.

a) The Contractor/ Agency shall be solely responsible for full compliance with the provisions of "the Sexual Harassment of women at work place (Prevention, Prohibition and Redressal) Act, 2013". In case of any complaint of sexual harassment against its employee within the premises of the Bank, the complaint will be filed before the Internal Complaints Committee constituted by the Contractor/ Agency and the Contractor/ Agency shall ensure appropriate action under the said Act in respect to the complaint.

b) Any complaint of sexual harassment from any aggrieved employee of the contractor against any employee of the Bank shall be taken cognizance of by the Regional Complaints Committee constituted by the Bank.

c) The contractor shall be responsible for any monetary compensation that may need to be paid in case the incident involves the employees of the contractor, for instance any monetary relief to Bank's employee, if sexual violence by the employee of the contractor is proved.

d) The contractor shall be responsible for educating its employees about prevention of sexual harassment at work place and related issues.

e) The contractor shall provide a complete and updated list of its employees who are deployed within the Bank's premises.

- 42. Force Majeure:** If either party is unable to perform its obligations under this Agreement due to the occurrence of an event beyond its control (such as acts of God, war like situations, riots, labor strike, government actions, earthquakes, cyclones, typhoons, and other natural calamities, etc.), that party will not be deemed to have defaulted under this Agreement. Each party agrees to use all reasonable efforts to enable performance under this Agreement to continue. If the period of non-performance due to a force majeure event exceeds 30 days, the party whose ability to perform has not been so affected may, by giving written notice, terminate this Agreement.

Place:

Date:

Signature of the tenderer with Seal.

Appendix

The condition Herein before Referred To

1.	Defects Liability Period	One year from the date of Virtual Completion Certificate
2.	Period of Final Measurement	3 months
3.	Date of Commencement	14 th day from the date of letter of acceptance.
4.	Date of Completion	Date of virtual completion certificate.
5.	Rate of liquidated damages for non-completion of work.	As per clause 3.16.2 mentioned in the tender
6.	Value of works for interim certificates	Rs. 20 lakhs
7.	Period for honouring certificates	One month for interim bills and 3 months for final bill.
8.	Interest for delayed payment	PF rates
9.	Charges for delay in submission of performance Bank Guarantee	@Bank rate

Place:

Seal & signature of Contractor

Date:

SECTION-VI

Check List

Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

Commercial Conditions

Sr. No.	Description	Bank's Terms and conditions	Acceptance of Bank's terms and conditions (YES/NO)
1	Validity	90 days from opening of tender part-I	
2	EMD	Rs. 62,500/- (Rupees Sixty Two Thousand Five Hundred only)	
3	Terms of payment	As per applicable clause in Part I of the tender	
4	Technical specifications	As per specifications in Part I of the tender	
5	Guarantee Period	One year from date of virtual completion.	
6	Service after sales during CAMC	Quoted rates shall include the cost of repairs/maintenance including replacement of any material / assembly / equipment / spares / labour if found necessary and monthly visit.	
7	Completion period	12 weeks from 14 th day of letter of award of work.	
8	Liquidated damages	As per clause 3.16.3 mentioned in the tender	
9	Penalty during warranty & CAMC period	Rs. 500/- per day subject to maximum of 50% of the annual maintenance charges, if the defect in the system is not rectified within the period of 2 days	
10	Penalty for reduced Power Generation during	As per applicable clause in Part I of the tender	

Part II should not contain any terms and conditions but only priced for bill of quantity.
Terms and conditions, if any, incorporated in Part II, will not be valid or considered.

Place

Date

Seal & Signature of Contractor

Section - VII
Technical Specifications

7.0 Scope of Work

The extent of the work shown and specified hereunder is defined to include all labour, materials, equipment, and supervision required for the design, fabrication, supply, installation, testing and commissioning of the complete solar power generation system, and subsequent upkeep and maintenance as defined. Generation from 40 KWp roof top solar system installed on the terraces of the buildings with approved make Solar optimizer or micro-inverters in the Bank's colony.

A. Generation of Solar Energy 2.876KWH per day/KWp, conversion of the same to AC power with a guaranteed annual generation of 1050 KWH per year per kWp during the first five years of operation at Bank's power grid synchronization point including:

- a) Design, Manufacturing, Factory Acceptance Test (FAT), supply, installation, testing and commissioning of bifacial Solar PV Modules (inclusive of Electrical, Electronic and Mechanical features) along with Power Conditioning Units (PCUs) / Solar optimizer or microinverter as required and specified. There should be individual Solar optimizer or microinverter for each solar panel. Facility of monitoring individual panel's performance should be available. Installation shall consist terminators, cables, JB's, MCBs, Relays, CTs, PTs, SPDs, Gateway interfaces etc. as per requirement to make the system operational in all respect and should be able to convey meaningful data.
- b) Design, Supply and installation of Module mounting structure / super structure on identified locations. The successful tenderer shall design their SPV Panel structure with Hot dipped galvanised steel and cement concrete(CC) foundation suitable for site condition. Design of SPV structure shall be certified /vetted by a recognized Govt. Engineering College viz. IIT / NIT etc. or by a reputed structural consultant and submitted for approval before taking up the structure and foundation works. The successful tenderer shall carry out Shadow Analysis at the site and accordingly design strings & arrays layout considering optimal usage of space, material and labour. The bidder should submit the array layout drawings along with Shadow Analysis Report to Bank before start of work at site.
- c) Supply, installation, testing and commissioning of approved make Solar optimizer

or micro-inverters, distribution panels, electrical switchgears, inverters, metering and connecting the system to the switch gear(MCB/Distribution Board) provided by the Bank for load and connecting up the system to the electrical grid, surge protection units etc. as required.

- d) Supply and laying of all power and control cables, as per site requirement, on prefabricated GI cable trays including supply of cable trays, their installation, hangers, supports, cable terminations and all fixing accessories.
- e) **Earthing: Chemical Earthing:** Supply and installation of Chemical earthing system with a copper bonded (on low carbon, high tensile steel rod) earthing electrode minimum 3 m long and 14-20 mm dia with copper coating of minimum 250 micron as per IEC 62561-2 with back filling compound as per IEC 62561-7. 25x3 mm copper earth strip shall be provided from earthing station to the entire system. Earthing stations shall be provided with testing point for every pits as per relevant IS with proper clamping and bolting using copper clamps and brass nut-bolts, including cutting of roads / paved areas & making good the damages as in original shape.

The main earth conductors connected with copper strip shall be connected to earth test point made up of the 25 mm x 3 mm copper strip (app. 200 mm in length).electrode just below the cap, with proper terminal lugs, brass check nuts/welding.

The cap over the Cu bonded electrode and earth test point, connection shall be housed in a masonry chamber 6" above normal ground level of size , size of approximately 420 mm length x 420 mm wide and 300 mm deep and including making a earth test point using 25 mm x 3 mm copper strip (app. 200 mm in length) . The masonry chamber shall be provided with MS Chequered plate 6 mm thick x 300mm L x 300 mm B inspection cover with hinges resting over a M S. frame, embedded in masonry and as per IS 3043.

- f) Testing and commissioning of the entire system including synchronizing with power grid and operation as required. The installation shall include the electrical switchgears, cabling, terminations, cable trays, inverters, metering and connecting the system to the electrical grid.
- g) The PV modules shall be installed with the necessary Solar optimizer or micro-inverters in a ratio of 1:1, tilt with the most effective orientation
- h) All related & required civil works will be the responsibility of successful tenderer.

- i) Solar System capacity shall be demonstrated to the Bank's Engineer.
- j) Onsite training to RBI Engineers and Workmen for proper operation, maintenance and trouble shooting.
- k) Provision for periodic cleaning of the solar panels considering the ambient conditions of the site once in a month during DLP and CAMC. Water connection at the same floor at one point shall be provided by Bank.
- l) Lightning arrester: Supply and installation of spike Lightning arrestor (multi point charge collector) connected to dedicated earthing station with copper coating of min 250 micron on low carbon steel, with support rod of 14-20 mm dia and base plate of min 75mm*75mm as per IEC 62305 standards.
- m) Replacement of existing conventional energy meter provided by local electricity supply agency / authority with bidirectional energy meter for Net Metering and grid connection etc. This will also include the replacement of CT/PT, metering Box etc., if required, in the scope of the bidder. The scope shall also include the required liaison with local electricity authority / Supply Company and / or with any other applicable authority for the same. The bidder will pay the fees / charges, if any, to the power supply authority or any other authority as applicable for providing Net Metering for this work and the Bank will reimburse the said fees / charges on production of original receipts of such payment.
- n) The bidder must take approval/NOC from the concerned local supply authority/any other statutory authority as applicable for above cited grid tied solar plant towards connectivity required if any. and submit the same to the Bank before commissioning of SPV plant.

B. All Inclusive Upkeep & Maintenance during Defect Liability and Comprehensive Annual Maintenance Contract (CAMC) period

During the Defect Liability period and CAMC period the contractor shall provide the all Inclusive Upkeep & Maintenance services of the entire system as provided, including all spares and consumables. The system shall be maintained by the contractor for a period of minimum 10 years from the date of handing over i.e. 09 years of CAMC after successful completion of one year of defect liability period of the system. The rates of the same are to be quoted separately as per Schedule of Quantities.

In addition to the routine / periodic cleaning of the Panels, qualified engineer of the contractor shall pay visit to the site at least once a quarter to check the system

thorough and conduct preventive maintenance.

Service to be provided by the Bank:

Unless otherwise agreed by RBI, only the following services shall be provided in connection with this work:

- a) Single point water source for cleaning of SPV panels near to the solar system. Further plumbing for distribution of water to various array locations, if required, to be provided by the contractor.
- b) Provision of necessary switchgear in the LT distribution panel for connecting the solar energy based AC power to the grid. However, the termination of cable to the switchgear shall be in the scope of the successful tenderer.

7.1 MINIMAL TECHNICAL REQUIREMENTS / STANDARDS FOR SPV ITEMS / SYSTEMS

7.1.1 PV MODULES, Solar optimizer or micro-inverters:

- a. The PV modules must confirm to the latest edition of any of the following IEC/ equivalent BIS Standards for PV module design qualification and type approval:

Bifacial Mono PERC (Passivated Emitter and rear cell) Silicon Terrestrial PV Modules: IEC 61215 (Ed. 2)/ IS14286

- b. The Solar PV modules should be supplied from the list of manufacturers and models of solar PV modules under ALMM order of Ministry of New and Renewable Energy (MNRE), Government of India, as on dated 31/12/2023 or updated afterwards.

- c. In addition, the modules must conform to IEC 61730 Part 1- requirements for construction & Part 2 - requirements for testing, for safety qualification or Equivalent IS

- d. PV modules shall be suitable to be used in a highly corrosive atmosphere (coastal areas, etc.) must qualify Salt Mist Corrosion Testing as per IEC 61701 / IS 61701.

- e. Solar optimizer or micro-inverters must follow all the national/international standards, safety standards. The Bank will be checking all the standard certificates.

- f. Solar optimizer or micro-inverters shall be designed as per the number of PV modules.

- g. Solar optimizer or micro inverter /PCU bank shall be as per latest specification as per instructions/guidelines of MNRE applicable at the time of submission of bid and also at the time of supply.

- h. The total capacity of the Inverters/Solar optimizer or micro Inverters/PCU shall not be less than the capacity of the Solar Power Plant.
- i. Inverter/Solar optimizer or micro Inverter/PCU shall be capable of complete automatic operation including wake-up, synchronization & shutdown.
- j. The output of power factor of inverter/ Solar optimizer or micro Inverter/PCU is suitable for all voltage ranges or sink of reactive power, inverter should have internal protection arrangement against any sustainable fault in feeder line and against the lightning on feeder.
- k. Anti-islanding (Protection against Islanding of grid): The inverter/Solar optimizer or micro Inverter/PCU shall have anti islanding protection in conformity to IEEE 1547/UL 1741/ IEC 62116/IS16169 or equivalent BIS standard.
- l. In Inverter/ Solar optimizer or micro Inverter/PCU, there shall be a direct current isolation provided at the output by means of a suitable isolating transformer.
- m. The MPPT units environmental testing should qualify IEC 60068-2 (1, 2, 14, 30)/ Equivalent BIS std. The junction boxes/ enclosures should be IP 65 (for outdoor)/ IP 54 (indoor) and as per IEC 529 specifications.
- n. If Micro Inverters are used then there is no requirement of DC Cables, DCDB and AJB
- o. The Solar optimizer or micro inverter should be installed near the SPV module and should have protection from water & dust and shall withstand at a temperature of 65 degree Centigrade.

7.2 RELEVANT STANDARD OF SYSTEM/ COMPONENTS/ ITEMS

7.2.1 The system/ components/ items of the SPV power systems/ systems deployed must conform to the latest edition of IEC/ Equivalent BIS Standards/ MNRE specifications / as specified below:

System/ components/ items	Applicable BIS /Equivalent IEC Standard Or MNRE Specifications	
	Standard Description	Standard Number
Charge Controller / Maximum peak power transfer (MPPT) units	Environmental Testing	IEC 60068-2 (1,2,14,30) / Equivalent BIS Std.
Power Conditioners/	Efficiency Measurements	IEC 61683 / IS 61683

Inverters including (Maximum peak power transfer) MPPT and Protections	Environmental Testing	IEC 60068-2 (1, 2, 14, 30) / Equivalent BIS Std.
	procedure of islanding prevention measures	IEC 62116
Cables	General Test and Measuring Method PVC insulated cables for working voltage up to and including 1100 V and UV resistant for outdoor installation	IEC 60227 / IS 694 IEC 60502 / IS 1554 (Pt. I & II)
Switches/Circuit Breakers /Connectors	General Requirements connectors – safety A.C. /D.C.	IEC 60947 part I,II, III / IS 60947 Part I,II,III EN 50521
Junction Boxes /Enclosures for Inverters/Charge Controllers/Luminaries	General Requirements	IP 65(for outdoor)/ IP 21(for indoor) as per IEC 529
Earthing	Pit and distribution	IS 3043:2018

7.3. AUTHORISED TESTING LABORATORIES / CENTERS

7.3.1 The PV modules must be tested and approved by one of the IEC authorized test centres. Test certificates can be issued by any of the NABL / BIS Accredited Testing / Calibration Laboratories.

7.3.2 Test certificates for the system/ components/ items from any of the NABL / BIS Accredited Testing Calibration Laboratories / MNRE approved test centres to be submitted to the Bank.

7.4. IDENTIFICATION AND TRACEABILITY

Each PV module used in the solar power project must use a RF identification tag (RFID), which must contain the following information. The RFID can be inside or outside the module Laminate, but must be able to withstand harsh environmental conditions.

- i) Name of the manufacturer of PV Module
- ii) Name of the Manufacturer of Solar cells of PV Module
- iii) Month and year of the manufacture (separately for solar cells and module).
- iv) Country of origin (separately for solar cells and module)
- v) I-V curve for the module

- vi) Peak Wattage, Im, Vm and field factor (FF) for the module
- vii) Unique Serial No. and Model No. of the module
- viii) Date and year of obtaining IEC PV module qualification certificate
- ix) Name of the test lab issuing IEC certificate
- x) Other relevant information on traceability of solar cells and module as per ISO 9000 series.

Note: - The RFID must be placed inside the module laminate.

7.5 The contractor shall execute the whole & every part of the work in the most substantial manner and both as regard to materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also confirm the execution of work exactly, fully and faithfully to designs, drawings & instructions in writing in respect of the work assigned by the Bank's Engineer.

7.6. ACTIONS TO BE TAKEN BY THE SUCCESSFUL TENDERER AFTER AWARD OF WORK

7.6.1 Considering that time is the essence of the contract, the successful tenderer shall take the following actions immediately –

- a) They shall contact the Bank's Engineer in charge of the work, immediately after award of work and submit the agreement on non-judicial stamp paper of adequate value as per the relevant stamp act and the cost of the same shall be completely borne by the tenderer.
- b) All the required submittals must be completed within 15 days from the date of issue of work order.
- c) A programme chart shall be prepared for execution of the work within specified time and submitted to the Bank. The work-schedule chart/ bar-chart shall also include the time schedule for commencement of various activities of work like inspection & delivery of materials, commencement of work, completion of work etc. required for the execution & timely completion of work.

7.6.2 All activities for execution of work shall strictly follow the programme chart so finalized unless advised otherwise by the Bank's Engineer in writing. It shall be the responsibility of the contractor to adhere to this work-schedule and complete the work in the specified time. Any deviation from this schedule, for any reason, shall be brought to

the notice of the Bank's Engineer immediately to enable him to take necessary corrective action(s). Failure to submit the work schedule chart within the specified time or meeting the various committed deadlines shall be treated as delay on the part of the tenderer.

7.6.3 Drawings indicating the design of Solar Power Generation System proposed along with designs for structures / foundations for SPV array shall be submitted to the Bank's Engineer, for approval, within fifteen (15) days of the receipt of work order. The drawings shall indicate all relevant details about the component/equipment etc.. The contractor shall submit all equipment information, which should include but not limited to the following and obtain approval:

- a) General arrangement and dimensional layout
- b) Schematic Drawing showing the SPV System, Power conditioning Unit(s), Circuit breakers, Junction Boxes, AC and DC Distribution Boards, meters etc.
- c) Structural drawing along with foundation details for the structure.
- d) Itemised bill of material for complete SPV system covering all the components and associated accessories.

7.7 Testing of equipment/system: Type test certificates for all the tests specified for the factory built Solar PV modules and the component parts shall be submitted by the Bidder along with the bid.

7.8.1 Factory Acceptance Test (FAT) of equipment: Delivery of equipment is to be made to the site in accordance with the programme finalized in consultation with Bank's Engineer. The equipment shall be delivered only after pre-delivery inspection has been carried out by RBI's authorized representative. Pre-delivery inspection of equipment shall be carried at the factory premises of Factory. The Bank shall be informed of such inspection at least 07 days in advance.

7.8.2 Testing at site after completion of installation:

On completion of the installation, the tenderer shall conduct a system acceptance test. The tenderer shall propose a detail system acceptance test plan, which shall be jointly reviewed by RBI and the tenderer.

- a) All units shall on their completion, be subjected to a performance test followed by an acceptance inspection and tests to determine that all parts of the installation confirm to the requirement and that all equipments function as required and the work has been carried out as specified.

b) Tests and inspections shall be made by the contractor in the presence of the Bank's Engineer. Contractor shall notify the Bank's Engineer in writing before the date of testing in order to facilitate arrangements for Bank's Engineer to be present.

c) The contractor shall submit proposed testing procedure to the Bank's Engineer before the date of testing.

d) All test instruments and personnel to carry out the testing and commissioning shall be provided by the contractor. Adequate supervision of the tests shall also be maintained.

e) Corrective measures, if necessary, shall be carried out at no cost to the Bank.

f) **Performance Test at Site:** After installation of the complete system, its operating capability shall be demonstrated. The contractor shall provide personnel, tools, etc. for testing. The performance test shall be conducted in the presence of Bank's Engineer or his authorized representative for a minimum of (10) ten hours for ten working days as per the following: -

- i. Measurement of peak DC & AC power generated shall be taken every day for 10 working days at available load condition.
- ii. Auto operation of the complete system Correction of unsatisfactory operation during test period, if any deficiencies or variations in the design, fabrication or operation causing unsatisfactory performance is noticed, then same shall be corrected to provide satisfactory performance. Manufacturer / Contractor shall have appropriate service personnel at site during the test period to service or adjust the systems equipments as required.

7.8.3 Acceptance of system: after completion of the system performance tests a joint acceptance inspection shall be carried out by Bank's Engineer and the representative of the contractor. The purpose of this inspection shall be to determine that the system has been furnished and installed as specified. If the system is not acceptable for reasons of non-compliance to the drawings and specifications, the contractor shall make immediate corrections within the construction schedule. A final acceptance inspection shall be done to determine all corrections have been made.

7.9 TRAINING

The contractor shall include in his tender cost of training of Bank's technical staff. Initial training of operating and maintenance personnel shall be provided at site to ensure

competence in the operation and maintenance of the system provided. The training programme shall include but not limited to the following elements:

A) OPERATING TRAINING

- (i) System description including electrical, electronic and mechanical sub-system and their functions.
- ii) System operating procedures.
- iii) System operating characteristics.
- iv) System limitations.
- v) On-site system operation.

B) MAINTENANCE TRAINING

- i) System description including electrical, electronic and mechanical sub-systems and their functions.
- ii) System and component trouble-shooting
- iii) On-site inspection, operation and maintenance
- iv) Schedule of maintenance, safety checks and procedures.

7.10 DETAILED SPECIFICATIONS

Solar PV system shall consist required number of PV modules, module mounting structures, Solar optimizer or micro inverters with data logger, Junction box and distribution boards, cables and hardware, earthing, surge arrestors, tool kit, related civil works, and control & monitoring system etc. The specifications of these items are as under:

7.10.1 Bifacial Solar PV Modules:

- a) The bifacial solar photo-voltaic module of $\geq 520\text{Wp}$ power output under STC to be provided with high efficiency of more than 15% Bifacial Mono passivated and rear cell (PERC) solar cells.
- b) The solar cell shall have surface anti-reflective coating to help to absorb more light in all weather conditions.
- c) It should have rugged design to withstand tough environmental conditions and high wind speeds (over 150 km/h). It shall perform satisfactorily in relative humidity upto 95% and temperature between 10 deg C and 85 deg C.
- d) PV modules must be designed for their output peak watt capacity, which should not be less than 90% at the end of 10 years and 80% at the end of 25 years.
- e) The PV module should be IEC 61215-Ed 2 & 61730-1&2 / UL certified and with

MNRE (GOI)-SEC test certificate or from other accredited / approved labs. The I-V characteristics of all suitable modules as per specifications, to be used in the systems are required to be submitted at the time of supply.

7.10.2 Module Mounting Structures:

- f) The module mounting structure to be designed in such a way that it will occupy minimum space without sacrificing the output from suitable number of solar modules in series.
- g) The structure shall be designed to allow easy replacement of any module & shall be in line with the site requirements. The structure design shall also ensure that bifacial property of the Solar panels are not hindered.
- h) The frames and leg assemblies of the mounting structure should be of standard M.S. sections of angle, channel, tubes and any other sections conforming to IS: 2062. These structures should be hot dip galvanized for the long life in external weather conditions.
- i) The mounting structure should be of Fixed Type, Tilt angle suitable to site, Foundation PCC, Fixing type with SS 304 fastener with clamp fitted to provide rigidity to the structure.
- j) Galvanized Steel Structural must be considered for all type structural steel proposed for the power system.
- g) The array structure shall be grounded properly using earthing kit.
- h) Design drawings with material selected shall be submitted for prior approval of Bank.

7.10.3 PCU / MPPT/INVERTER/SOLAR OPTIMIZER OR MICRO INVERTER:

- a) PCU/Solar optimizer or micro inverter / MPPT and 3 phase with neutral inverter shall be supplied as integrated unit depending upon the size of the solar power system. It should conform to IEC61683 and must additionally conform to the relevant national/ international Electrical Safety Standards IEC60068-2. To minimize power losses the PCU/Solar optimizer or micro inverter should be microprocessor & micro controller based having inverter, which converts DC energy produced by the solar array to 3 phase with neutral AC energy.
- b) The PCU/Solar optimizer or micro inverter shall be mounted either on a suitable MS stand on the floor or on the wall with proper supports in the control room. All cable entry to and from the PCU /Solar optimizer or micro inverter shall be fully sheathed to prevent access of rodents, termites or other insects into the

PCU/Solar optimizer or micro inverter from bottom/top of the PCU/Solar optimizer or micro inverter.

- c) PCU/Solar optimizer or micro inverter should be communicable on sim-based dongle(preferably) and should be provided with Ethernet port(s) for communication.
- d) The PCU /Solar optimizer or micro inverter should provide the following minimum Indications (through LEDs & LCD display)
- Inverter ON
 - Grid ON
 - Inverter under voltage/over voltage
 - Inverter over load
 - Inverter over temperature.

Protections:

- Over voltage both at input & output
 - Over current both at input & output
 - Over/under Grid frequency
 - Over temperature
 - Short circuit
 - Protection against lightening
 - Surge voltage induced at output due to external source.
- e) The inverter shall be designed for continuous, reliable power supply as per specifications. The inverter shall have high conversion efficiency from 25 percent load to the full rated load. Output Sine wave with less than 3% THD from no load to full load at 0.8 pf lag or lead. The efficiency of the inverter shall be more than 94% at full load and more than 80% at partial load (50%-75%). The supplier shall specify the conversion efficiency in the offer.
- f) The inverter should be capable of operating under ambient temperature 0- 55 deg C, Humidity 0-95% RH
- g) The inverter shall have internal protection arrangement against any sustained fault in the feeder. The inverter shall have provision for input & output isolation.
- h) Inverter shall be tested for islanding protection performance and should be provided. When the mains power is off, the PCU/Solar optimizer or micro inverter should also get automatically off so that back-feeding to the grid is not possible.
- i) The software (Plant Manager & PC for remote monitoring through LAN) and

hardware **except PC**, required for interfacing the system are to be supplied.

OR

The SIM based tracker device with the SIM registered in the name of the firm is to be provided for each inverter system. The relevant charges for the same during DLP period of one year and CAMC period of 19 years may be included in the bid to be submitted for the tender.

- j) Maximum Power Point Tracker (MPPT) shall be integrated into the PCU/Solar optimizer or micro inverter to maximize energy drawn from the Solar PV array. The details of working mechanism of MPPT shall be furnished. Each solid-state electronic device shall have to be protected to ensure long life of the inverter as well as smooth functioning of the inverter.
- k) The dimension, weight, foundation, makes details etc. of the PCU / Inverter/Solar optimizer or micro inverter shall be clearly indicated in the detailed technical document. Good quality & reputed proven makes having minimum two years of trouble free successful functioning in similar solar PV system should be supplied.
- l) The PCU /Solar optimizer or micro inverter shall be capable of complete automatic operation, including wake-up, synchronization & shut down
- m) Built-in with data logging to remotely monitor system performance through external PC shall be provided (PC shall be provided by Bank)

OR

Built-in with data logging to the SIM based tracker device to monitor system performance through App. Also refer para 7.1.1 for Solar optimizer or micro-inverter

7.10.4 Junction box and distribution boards:

- a) The junction boxes should be dust, vermin & waterproof & made of FRP/ABS plastic for outdoor use and IP 65 rated (for outdoor) / IP 21 (for indoor) and IEC 62208, for long-term use in PV systems. In addition, the direct connection between the strings and the spring clamp connectors should ensure a durable and safe installation.
- b) The junction boxes shall have suitable cable entry points fitted with cable glands of appropriate sizes for both incoming & outgoing cables. Suitable markings shall be provided on the bus bar for easy identification & cable ferrules shall be fitted at the cable termination points for identification.

7.10.5 Cables and hardware:

- a) Flexible copper cables of appropriate size and voltage rating of 660/1000V to be used in the system and shall conform to IS 694/1554 standards. The cable should have excellent resistance to heat, cold, water, oil, abrasion, UV radiation.
- b) Required sizes of flexible copper cables between array interconnections, array to junction boxes, junction boxes to Inverter and copper armoured cable from inverter / AC DB to location of propose Net Meter/ power synchronise etc. shall be so selected to keep the voltage drop (power loss) of the entire solar system to the minimum. The cables (as per IS) should be insulated with a special grade PVC compound formulated for outdoor use.
- c) Cable Routing/ Marking: All DC cable/wires are to be routed in a GI cable tray and suitably tagged and marked with proper manner by good quality ferule or by other means so that the cable easily identified.
- d) As per site requirement Cable laying through underground / across the road by providing necessary GI pipe is within the scope of work of the tenderer.
- e) The Cable should be so selected that it should be compatible upto the life of the solar PV panels i.e. 25years.

7.10.6 Instrumentation, measurement and monitoring:-

The scope of work shall be compatible with Solar optimizer or micro-inverters. The scope of work shall include for supply and installation of pyrometer, temperature probes for recording the solar panel temperature, anemometer for measuring the wind speed. All these instruments shall be integrated and the data should be logged for viewing on the PC screen. Necessary software also shall be provided for the same.

Data Logging Provision for system monitoring, time and date stamped system data logs for analysis shall be made.

Metering and Instrumentation for display of systems parameters and status indication to be provided.

PV array energy production: Digital Energy Meters to log the actual value of AC/ DC voltage, Current & Energy generated (each day / cumulatively) by the PV system shall be provided. Energy meter along with CT/PT should be of 0.2 accuracy class or accuracy class as supplied by the distribution company shall be provided.

Solar Irradiance: An integrating Pyranometer (Class II or better) shall be provided, with

the sensor mounted in the plane of the array. Readout integrated with data logging system.

Temperature: Temperature probes for recording the Solar panel temperature and ambient temperature to be provided complete with readouts integrated with the data logging system

Wind Speed: An integrated wind speed measurement unit to be provided.

All major parameters available on the digital bus and logging facility for energy auditing shall be available on the PC display.

The following parameters should be accessible via the operating interface display.

- a. AC Voltage.
- b. AC Output current.
- c. Output Power
- d. DC Input Voltage.
- e. DC Input Current.
- f. Time Active
- g. Time disabled.
- h. Time Idle
- i. Temperatures (°C).
- j. Inverter Status.

7.11.1 System protections requirements: Protective function limits (Viz-AC Over voltage, AC Under voltage, over frequency, under frequency, ground fault, PV starting voltage, PV stopping voltage, over voltage delay, under voltage delay, Ground fault delay, PV starting delay, PV stopping delay) shall be provided.

7.11.2. In addition to above, the system shall be provided with the following:

- a. **Earthing:** The structure of the PV arrays will be grounded properly using adequate number of earthing. All metal casing / shielding of the system shall be thoroughly grounded to ensure safety of the solar systems.
- b. **Lightning and O/V protection:** The SPV systems shall be provided with lightning & over voltage protection. The main aim in this

protection shall be to reduce the over voltage to a tolerable value before it reaches the PV or other sub- system components. The source of over voltage can be lightning, atmosphere disturbances etc.

- c. All wiring/cables should be in proper conduit or suitable casing and wires should not be hanging loose.
- d. All connections are to be made through suitable cable/lug/terminals; crimped properly & with use of Cable Glands.
- e. Switches / Circuit Breakers / Connectors-safety IS/ IEC 60947 part I, II & III, EN 50521
- f. Fuses to be provided to protect against short circuit conditions.
- g. Details of solar power system design and layout for all systems shall be submitted along with Technical bid (Part-I).
- h. All the components of the systems viz PV modules, Electronics, etc should have type approval / test certificates as per MNRE guide lines
- i. All components and materials used in the system should be of good quality & conform to the BIS / IEC standards / specifications, wherever available / applicable.
- j. Each system should have number plate with name & logo of the manufacturer and the month / year of installation.
- k. Operation and Maintenance / Instruction Manual (with Do's and Don'ts) to be provided with each system.
- l. Danger boards should be provided as and where necessary as per IE Act./IE rules as amended up to date.

7.11.3 ENVIRONMENT/MAINTENANCE/ SAFETY DESIGN PARAMETERS

i) Environment

All components and materials are to be designed and selected for long service life under local environment conditions.

ii) Maintenance consideration

- a) Particular attention shall be given to keep components simple, rugged and easily accessible for routine maintenance and components replacement.
- b) Major assemblies and components such as, electrical components/controls shall be interchangeable and easily removable/replaceable without extensive dismantling of other assemblies of components.
- c) **All wiring shall be of a uniform colour coding and marking system throughout indicating wiring terminations** to permit rapid effective tracing and trouble shooting. Maintenance manual shall reflect said colour coding/markings.
- d) To facilitate identification, each item of equipment shall have a name plate of corrosion resistant metal attached in a conspicuous location.

iii) Safety considerations

All components shall be designed to have fail proof performance. In the event of an equipment failure or external influence such as improper operation, power failure or other adverse conditions affecting the proper function of the system or equipment, the said system or equipment **shall revert to a safe state**. Inverter shall be tested for islanding protection performance. When the Grid mains power is off, the PCU/Solar optimizer or micro inverter should also get automatically off so that back-feeding to the grid is not possible.

If any accessories, parts, approvals required from Govt. agencies etc. which are not mentioned above but are required to complete the work, are in the scope of the tenderer

Place:

Date: seal & signature of the Tenderer

ANNEXURE-“A”

(To be uploaded along with tender Part-I)

A. SCHEDULE OF TECHNICAL INFORMATION

i)	Enclose a write up on the system design proposed for this project specifically indicating how the power generated from the solar energy will be synchronized with the local grid.	
ii)	Enclose a single line diagram (SLD) / schematic layout for the proposal indicating the ratings and quantity of major components viz. SPV Modules, nos. of arrays, AC & DC distributions, PCUs/Solar optimizer or microinverters etc.	
iii)	Enclose the proposed layout of the SPV module array showing the spacing between arrays, walk way width etc.	
iv)	Confirm the minimum guaranteed annualized energy (KWH/year) that will be generated from solar energy source and available for internal use for 20 years.	Annex. B
v)	Confirm the area required by the bidder for installation of SPV panels along with its structure, maintenance, walk ways to provide a generating capacity of per KWp basis as required in the tender.	Total area in sqm. _____
vi)	Enclose drawing showing typical arrangement for mounting of SPV modules along with dimension and nature of foundation.	(plan, elevation and section to be enclosed)
vii)	Confirm the total quantum of AC power to be available from the installed SPV ModulesKVA
viii)	Confirm the location of meters to be provided for continuous measurement of AC power generated.	
ix)	Please confirm the acceptance test procedures to be adopted during FAT for the SPV Modules. Also indicate the standard to be followed.	
x)	Please confirm the acceptance test procedure to be adopted on completion of the work for the major components and the complete system at site.	

B. SCHEDULE OF TECHNICAL DATA TO BE FUNISHED BY THE CONTRACTOR

A	SPV MODULE	
i.	Manufacture's Name & Address	
ii.	Type of Modules with cat. Reference	
iii.	Design of module at standard test condition	
	a) Peak power watt	
	b) Peak power voltage	
	c) Peak power current	
	d) Open circuit voltage	
iv.	No. of SPV Modules proposed to achieve minimum _____ KWp DC power	
v.	Short circuit current of PV module (Amp.)	
vi.	Open circuit voltage of PV Module (V)	
vii.	Max. power rating of one PV Module (KWp) (not less than 520 Wp)	
viii.	Photo electrical conversion efficiency of SPV module (not less than 15%)	
ix.	Fill factor of the SPV module (> 0.70)	
x	Designated life of the SPV modules	
xi.	Overall dimensions (in mm)	
xii.	Weight	
Xiii	Frame materials	
xiv.	Reference of Standards / approval, if any	
xv.	Life of SPV Module (Years of Operation)	
B	PV ARRAY CAPACITY	
	Number of Module in series in each array	
	Peak power rating of one array	
	Number of array considered to achieve the specified output	
C	MODULE MOUNTING STRUCTURE	
i)	Type of structure and its materials used in frame and accessories	
ii)	Type of mounting structures (Fixed or any other type)	
iii)	Overall dimensions	
Iv)	Type of mounting	

v)	Surface azimuth angle of PV Modules	
vi	Tilt angle (Slope) of PV module	
vii.	Confirm structure & module frame shall be designed at wind speed 150 km/hr.	
D	POWER CONDITIONING UNITS (PCUs) / SOLAR OPTIMIZER OR MICRO INVERTERS	
i.	Manufacturer's name & address	
ii.	Type of PCU (Centralized or string type)	
iii.	Number of units proposed for each set of solar plant.	
iv.	Rated capacity of PCU/Solar optimizer or micro inverter	
v.	Input DC Voltage range	
vi.	Output voltage	
vii.	Frequency	
viii.	Minimum efficiency at full load	
ix.	Location (outdoor / indoor)	
x.	Output wave shape	
xi.	Dimensions in mm	
xii.	IP protection level	
xiii.	Type of cooling required	
xiv	Type of mounting	
xv.	Suitability for specified Ambient Temp. range & Humidity at	
xvi.	Type of Protection provided	
xvii	Over Load Condition	Yes/No
xviii	Short Circuit Protection	Yes/No
xix	Low/High Voltage Protection	Yes/No
xx	Power Electronic Component Protection Yes/No	Yes/No
E.	METERING	
i.	Nos. of meters proposed to be provided for measurement of actual value of AC/ DC voltage, Current & Energy generated (each day / cumulatively) by the PV system shall be provided.	
ii.	Location of meters	
iii.	Manufacturer's name & address	

iv	Confirm compliance with laid down specification	
----	---	--

Place:

Date:

Seal & Signature of the Tenderer.

ANNEXURE-“B”
(To be uploaded along with tender Part-I)

NAME OF WORK: Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

GUARANTEED ENERGY GENERATION FOR 25 YEARS

Note: Efficiency of each solar PV System shall be guaranteed to minimum 90% at the end of 10 years and 80% at the end of 25 years.

Year	Total (KWh) of guaranteed generation
Year 1	
Year 2	
Year 3	
Year 4	
Year 5	
Year 6	
Year 7	
Year 8	
Year 9	
Year 10	
Year 11	
Year 12	
Year 13	
Year 14	
Year 15	
Year 16	
Year 17	
Year 18	
Year 19	
Year 20	
Year 21	
Year 22	
Year 23	
Year 24	
Year 25	

Place:

Date:

seal & Signature of the tenderer.

ANNEXURE-“C”

Format for undertaking for product & maintenance support

(To be uploaded along with tender Part-I)

NAME OF WORK: Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

Pursuant to a contract awarded by Reserve Bank of India for the full scope of work as contained under the tender document for the above mentioned work or part thereof, we (*full name of the firm with address*), hereby undertake the complete responsibility for providing full product support and also maintenance support for the entire period of the designed life of the equipments so supplied and installed by us, promptly and expeditiously.

Further, in case any of the component(s), materials or parts used in the system so provided goes out of production, then we will make available the blue prints, drawings of the spare parts and specifications of materials at no cost to the RBI, as and when required in connection with the equipment to enable the RBI to procure spare parts from other sources.

Thanking You

Yours faithfully,

(Signature of the Contractor / Firm with Company's Seal)

ANNEXURE-“D”

Undertaking

(To be uploaded along with tender Part-I)

(To be submitted for SPV Modules and PCU/Solar optimizer or micro inverter separately)

(Undertaking by manufacturer of SPV Modules and PCUs/Solar optimizer or micro inverter regarding the manufacture's obligation to extend uninterrupted after sales service to RBI)

NAME OF WORK: Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with or Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

We, the manufacturer of Solar Power System Component(s) undertake to provide continued after sales service including but not restricted to the following services.

- i) To guarantee uninterrupted supply of spare parts throughout the designed life of SPV modules and PCU's/Solar optimizer or micro inverter. The designed life of SPV modules and PCU's/Solar optimizer or micro inverter shall be as indicated elsewhere in the technical bid.
- ii) To assist RBI in investigation of failure/malfunctioning of any part or system as and when called for by RBI during and after defects liability period.
- iii) We shall propose with cost estimate, any modification / up gradation of safety features, design modification / improvements to be incorporated in the SPV modules and PCU's/Solar optimizer or micro inverter subsequent to completion of the contract and suggest a time schedule to implement the same to enhance performance, reliability / life of SPV modules and PCU's/Solar optimizer or micro inverter.
- iv) We hereby undertake to provide the above services and respond to RBI's queries/requests in reasonable time notified by RBI during the design life of the SPV modules and PCU's/Solar optimizer or micro inverter.
- v) Any breach of above undertaking will entail RBI to take any or all actions mentioned below as deemed fit by RBI.

- a) To place on record the performance of firm either in the RBI Web Site or other publications.
- b) Intimate the Regulatory Authorities / bodies or other Banks.
- c) Restrict the firm's participation in further tendering in RBI.

Date: *(Name and address of the company with Company Seal)*

Note : This undertaking shall be furnished by the manufacturer of SPV Modules and PCUs/Solar optimizer or micro inverter. **In case the manufacturers of these two items are different, separate undertakings must be furnished by the respective manufacturer.**

ANNEXURE-“E”

DECLARATION OF COUNTRY OF ORIGIN

(To be uploaded along with tender Part-I)

NAME OF WORK: Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

This is to certify that

a) The SPV Modules & PCU's/Solar optimizer or micro inverter offered are new:

b) The SPV Modules will be manufactured, assembled and offered for inspection before dispatch the works/factory of _____(address)

Therefore, Country of Origin of SPV Modules shall be _____.

c) The Power Conditioning Units (PCUs)/ Solar optimizer or micro inverter will be manufactured, assembled and offered for inspection before dispatch at the works / factory of (address India)

_____.

Hence the Country of Origin of PCUs/Solar optimizer or micro inverter shall be _

_____.

Date :

(Name of the Company with address and Company Seal)

Note: There could be different country of origin for SPV Modules & PCUs/Solar optimizer or micro inverter. Specific address shall be provided for carrying out pre-delivery inspection at the works of the manufacturer.

ANNEXURE – 'F'

Factory Acceptance Test

Solar PV Modules: The Solar PV modules shall be tested at the factory in the following manner:

- i) **Physical Inspection:** The PV modules shall be inspected for its physical parameters such as dimensions, material and workmanship etc.

- ii) **Performance Parameter:** The Solar PV modules shall be tested at the factory on a sun simulator at Standard Temperature Conditions (STC) for the following Parameters:
 - a) Open Circuit Voltage (Voc)
 - b) Short Circuit Current (Isc)
 - c) Max. Power (Pmax.)
 - d) Voltage at Max. Power (Vmax.)
 - e) Current at Max. Power (Imax.)
 - f) Fill Factor
 - g) Module efficiency

2. Power Conditioning Unit: The power conditioning unit shall be inspected for the display of parameters as mentioned in the tender either at factory of OEM/Integrator or at site.

ANNEXURE-“G”

CLIENT's CERTIFICATE REG. PERFORMANCE OF CONTRACTOR

Name & address of the Client:

Details of Works executed by Shri /M/s:

- 1 Name of work with brief particulars
- 2 Agreement No. and date
- 3 Agreement amount
- 4 Date of commencement of work
- 5 Stipulated date of completion
- 6 Actual date of completion
- 7 Details of compensation levied for delay(indicate amount) if any
- 8 Gross amount of the work completed and paid
- 9 Name and address of the authority under whom works executed
- 10 Whether the contractor employed qualified Engineer/Overseer during execution of work?
- 11 i) Quality of work (indicate grading) Outstanding/Very Good/
Good/Satisfactory/poor
ii) Amt. of work paid on reduced rates, if any.
- 12 i) Did the contractor go for arbitration?
ii) If yes, total amount of claim
iii) Total amount awarded
- 13 Comments on the capabilities of the contractor.
 - a) Technical proficiency Outstanding/Very Good/
Good/Satisfactory/poor
 - b) Financial soundness Outstanding/Very Good/
Good/Satisfactory/poor
 - c) Mobilization of adequate T&P Outstanding/Very Good/
Good/Satisfactory/poor

- | | |
|-----------------------------|--|
| d) Mobilization of manpower | Outstanding/Very Good/
Good/Satisfactory/poor |
| e) General behavior | Outstanding/Very Good/
Good/Satisfactory/poor |

**Signature of the Reporting
Officer* with Office seal**

* Regarding performance report/clients certificate, for works carried out for Government/ public sector companies, the certificate should be signed by the concerned Executive Engineer or an officer in an equivalent or higher rank. For works carried out for Private companies, Copy of TDS has to be submitted for proving the credentials/contract amount.

- (i) All columns should be filled in properly
- (ii) The Client Certificates should be submitted for each of the Prequalification work/s

ANNEXURE-“H”

(To be uploaded along with tender Part-I)

FORMAT OF BANKERS' CERTIFICATE

1. Composition of the firm (whether Partnership"/ Private Limited/ Proprietorship/ Public Limited.)
2. Name of the Proprietor/ Partners/ Directors of the firm.
3. Turnover of the firm for the last 3 financial years as on March 31, 2024 (year wise).

FY 2021-2022

FY 2022-2023

FY 2023-2024

4. Credit facility/ Overdraft facility enjoyed by the firm.
5. Dealings
6. The period from which the firm has been banking with your bank.
7. Any other remarks.

You may also kindly forward your opinion whether the above firm is considered financially sound to be entrusted with the contract for works estimated to cost Rs. 31.25 lakhs.

(Signature)

For the Bank

Note:

Bankers' certificates should be on letter head of the Bank, addressed to RBI.

In case of partnership firm, certificate should include names of all partners as recorded with the Bank

ANNEXURE-“I”

FORMAT FOR POWER OF ATTORNEY FOR SIGNING OF PROPOSAL

(On Non-Judicial Stamp Paper of appropriate value) (To be uploaded along with tender Part-I)

Know all men by these presents, We(Name of the Bidder and address of their registered office) do hereby constitute, appoint and authorise Mr. / Ms.(Name and residential address of Power of Attorney holder) who is presently employed with us and holding the position ofas our attorney, to do in our name and on our behalf, all such acts, deeds and things necessary in connection with or incidental to our bid for the Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur., including signing and submission of all documents and providing information / responses to RBI, representing us in all matters before RBI, and generally dealing with RBI in all matters in connection with our proposal for the said Project.

We hereby agree to ratify all acts, deeds and things lawfully done by our said attorney pursuant to this Power of Attorney and that all acts, deeds and things done by our aforesaid attorney shall and shall always be deemed to have been done by us.

Note:

Power of Attorney should be properly stamped and notarized

Power of Attorney furnished shall be irrevocable.

Signature/(s) of the Bidder

Name/(s)

Stamp/Seal of the Bidder

(NB: This guarantee will require stamp duty as applicable in the state, where it is executed and shall be signed by the official whose signature and authority shall be verified).

ANNEXURE-“J”

Proforma For Bank Guarantee In Lieu Of Earnest Money Deposit

(To be submitted on non-judicial stamp paper of appropriate value purchased in the name of the issuing Bank)

Place: _____

Date: _____

The Regional Director
Maharashtra,
Reserve Bank of India
Mumbai Regional Office

Dear Sir,

Name of Work: Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

Ref.: RBI/Mumbai Regional Office/Estate/45/23-24/ET/629

WHEREAS

The Reserve Bank of India, having its Central Office at Shahid Bhagat Singh Road, Mumbai (hereinafter called the 'RBI') has invited tenders for the captioned work (hereinafter called "the said tender") on the terms and conditions mentioned in the said tender documents.

It is one of the terms of invitation of tenders that the tenderer shall furnish a Bank Guarantee for a sum of Rs. _____ (Rupees _____ only) as Earnest Money Deposit (EMD).

M/s. (Name of the Tenderer/Bidder) _____, (hereinafter called as "the Tenderer/Bidder"), who are our Clients/Constituents intend to submit their tender/ Bid for the said work and have requested us to furnish Bank Guarantee to RBI in respect of the said sum of Rs. _____ (Rupees _____ only) in respect of EMD.

NOW THIS GUARANTEE WITNESSETH

1. We _____ (Name of the Bank) do hereby agree with and undertake to RBI, their Successors, Assigns that in the event of the RBI coming to the conclusion that the Tenderer have not performed their obligations under the said conditions of the tender or

have committed a breach thereof, which conclusion shall be binding on us as well as the said Tenderer; we shall on demand by the RBI, pay without demur to the RBI, a sum of Rs. _____ (Rupees _____ only) or any lower amount that may be demanded by the RBI. Our guarantee shall be treated as equivalent to the Earnest Money Deposit for the due performance of the obligations of the Tenderer under the said Conditions, provided, however, that our liability against such sum shall not exceed the sum of Rs. _____ (Rupees _____ only).

2. We also agree to undertake to and confirm that the sum not exceeding Rs. _____ (Rupees _____ only) as aforesaid shall be paid by us without any demur or protest, merely on demand from the RBI on receipt of a notice in writing stating that the amount is due to them and we shall not ask for any further proof or evidence and the notice from the RBI shall be conclusive and binding on us and shall not be questioned by us in any respect or manner whatsoever. We undertake to pay the amount claimed by the RBI within a period of one week from the date of receipt of the notice as aforesaid.
3. We confirm that our obligation to the RBI under this guarantee shall be independent of the agreement or agreements or other understandings between the RBI and the Tenderer

This guarantee shall not be revoked by us without prior consent in writing of the RBI.

We hereby further agree that –

- a) Any forbearance or commission on the part of the RBI in enforcing the conditions of the said agreement or in compliance with any of the terms and conditions stipulated in the said tender and/or hereunder or granting of any time or showing of any indulgence by the RBI to the Tenderer or any other matters in connection therewith shall not discharge us in any way and our obligation under this guarantee. This guarantee shall be discharged only by the performance by the Tenderers of their obligations and in the event of their failure to do so, by payment by us of the sum not exceeding Rs. _____ (Rupees _____ only).
- b) Our liability under these presents shall not exceed the sum of Rs. _____ (Rupees _____ only).
- c) Our liability under this agreement shall not be affected by any infirmity or irregularity on the part of our said constituents/clients in tendering for the said work or their obligations there under or by dissolution or change in the constitution of our said constituents.
- d) This guarantee shall remain in force upto _____ (six months from the last date of receipt of tender) provided that if so desired by the RBI, this guarantee shall be

renewed for a further period as may be indicated by them on the same terms and conditions as contained herein.

e) Our liability under these presents will terminate unless these presents are renewed as provided hereinabove on the _____ or on the day when our said constituents comply with their obligations, as to which a certificate in writing by the RBI alone is the conclusive proof whichever date is later. Unless a claim or suit or action is filed against us within _____ or any extended period, all the rights of the RBI against us under this guarantee shall be forfeited and we shall be released and discharged from all our obligations and liabilities hereunder.

Yours faithfully,

For and on behalf of _____ Bank.

Authorised Official (with seal)

(NB: This guarantee will require stamp duty as applicable in the state, where it is executed and shall be signed by the official whose signature and authority shall be verified).

ANNEXURE-“K”

Proforma of Bank Guarantee For Security Deposit

(To be submitted on Non-judicial stamp paper of appropriate value purchased in the name of the issuing bank)

Place : _____

Date : _____

To,
The Regional Director
Reserve Bank of India
Estate Cell- BKC
BKC, C-7, 3rd Floor, Mumbai

Dear Sir,

Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

Bank Guarantee For PERFORMANCE SECURITY DEPOSIT

WHEREAS

Reserve Bank of India, having its Central Office at Shahid Bhagat Singh Road, Fort, Mumbai, (hereinafter called “the RBI”) has awarded the Contract for the captioned project (hereinafter called the “Contract”) to M/s _____ (Name of the Contractor) (hereinafter called “the said Contractor” which expression shall include its successors and assigns).

AND Whereas we are aware that an agreement has been executed between the Reserve Bank of India and the contractor and in terms of clause _____ of the said agreement the contractor is bound by the said Contract to submit to RBI a Performance Security for a total amount of ₹. _____ (Rupees _____ only) (Amount in figures and words) for the due fulfilment by the said contractor of the terms and conditions contained in the contract. We, _____ (Name of the Bank), (hereinafter called “the Bank”), at the request of M/s _____, the contractor, do hereby undertake to pay to the RBI an amount not exceeding Rs _____ as Performance Guarantee for due fulfilment of the terms and conditions of the contract.

NOW THIS GUARANTEE WITNESSETH

1. We (Name of the Bank) do hereby agree with and undertake to RBI, their Successors, Assigns that in the event of the RBI coming to the conclusion that the Contractor has not performed his obligations under the said conditions of the contract or have committed a breach thereof, which conclusion shall be binding on us as well as the said contractor; we shall on demand by the RBI, pay without demur to the RBI, a sum of Rs. (Rupees only) or any lower amount that may be demanded by the RBI. Our guarantee shall be treated as equivalent to the Performance Guarantee Amount for the due performance of the obligations of the Contractor under the said

Contract, provided, however, that our liability against such sum shall not exceed the sum of Rs. (Rupees only).

2. We also agree to undertake to and confirm that the sum not exceeding Rs. (Rupees only) as aforesaid shall be paid by us without any demur or protest, merely on demand from the RBI on receipt of a notice in writing stating that the amount is due to them and we shall not ask for any further proof or evidence and the notice from the RBI shall be conclusive and binding on us and shall not be questioned by us in any respect or manner whatsoever. The Bank shall pay to RBI any money so demanded notwithstanding any dispute/disputes raised by the Contractor in any suit or proceedings pending before any Court, Tribunal or Arbitrator/s relating thereto and the liability under this guarantee shall be absolute and unequivocal. We undertake to pay the amount claimed by the RBI within a period of one week from the date of receipt of the notice as aforesaid.

3. We confirm that our obligation to the RBI under this guarantee shall be independent of the agreement or agreements or other understandings between the RBI and the Contractor.

4. This guarantee shall not be revoked by us without prior consent in writing of the RBI.

We hereby further agree that –

a) Any forbearance or commission on the part of the RBI in enforcing the conditions of the said agreement or in compliance with any of the terms and conditions stipulated in the said Contract and/or hereunder or granting of any time or showing of any indulgence by the RBI to the Contractor or any other matters in connection therewith shall not discharge us in any way and our obligation under this guarantee. This guarantee shall be discharged only by the performance by the Contractor of their obligations and in the event of their failure to do so, by payment by us of the sum not exceeding Rs. (Rupees only).

b) Our liability under these presents shall not exceed the sum of Rs. (Rupees only) .

c) Our liability under this agreement shall not be affected by any infirmity or irregularity on the part of our said constituents/clients or their obligations thereunder or by dissolution or change in the constitution of our said constituents.

d) This guarantee shall remain in force up to 5 years from the virtual completion date of the project provided that if so desired by the RBI, this guarantee shall be renewed for a further period as may be indicated by them on the same terms and conditions as contained herein.

e) Our liability under these presents will terminate unless these presents are renewed as provided hereinabove on the or on the day when our said constituents comply with their obligations, as to which a certificate in writing by the RBI alone is the conclusive proof whichever date is later. Unless a claim or suit or action is filed against us within or any extended period, all the rights of the RBI against us under this guarantee shall be forfeited and we shall be released and discharged from all our obligations and liabilities hereunder.

In witness whereof I/We of the Bank have signed and sealed this guarantee on the-----day of -----(Month) (Year) being herewith duly authorized.

For and on behalf of _____(Name of the Bank)

Signature of authorized Bank official

Name:

Designation

Stamp/ Seal of the Bank

Signed, sealed and delivered for and on behalf of the Bank by the above named in the presence of:

Witness 1

Signature

Name

Address

(NB: This guarantee will require stamp duty as applicable in the state, where it is executed and shall be signed by the official whose signature and authority shall be verified).

ANNEXURE – “L”

(To be uploaded along with tender Part-I)

Proforma for providing input for NEFT Payment

RTGS/NEFT/ECS – MANDATE AUTHORISATION FORM

1. Supplier's / Vendor's Name:

[illegible]

2. Supplier's / Vendor's Name as per Bank Records:

[illegible]

3A. Supplier's Code

--	--	--	--	--

3B. Supplier's PAN Number: #

[illegible]

Quoting PAN No. in all the e-returns has become 100% mandatory w.e.f. 14-02-2008, hence ensure to fill- up this and also send a photocopy of PAN duly self-attested. If there is any difference between the name given in the supplier's name and name given in the PAN card, then a note to explain the reason for the difference and the correlation between both.

4. Supplier's / Vendor's Complete Postal Address:

Door No.								Street:										
Location :								District:										
City:								State						PIN				

5. Supplier's / Vendor's E-mail ID:

[illegible]

6. Supplier's / Vendor's Telephone Number & Mobile Phone Number:

[illegible]

7. Name of the Bank:

[illegible]

8. Bank (Branch) Postal Address:

[illegible]

9. RTGS*/NEFT /MICR- Code of the Branch:**

[illegible]

RTGS* - "Real Time Gross Settlement", NEFT** - "National Electronic Fund Transfer". MICR-Magnetic Ink Recognition Character These "IFSC" Codes are unique numbers of each Branch – "Indian Financial Services Code". For some Branches both the codes are the same and some Banks, may maintain one Code No. for RTGS and another Code No. for NEFT. Hence, please fill-up both the rows, even if it is the same.

10. Nature of the Account: (Tick whichever is applicable & put 'x' mark for the balance two accounts):

Saving Bank Account		Cash Credit Account:		Current Account:	
---------------------	--	----------------------	--	------------------	--

11. Bank Account Number of the Supplier: ©

--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

© Fill up from the 1st column. For the balance left out blank columns, please mention 'X' mark. We hereby declare that the particulars given above are correct and complete. If the transaction is delayed for reasons of incomplete or incorrect information, we would not hold RBI responsible.

Date: **Supplier's Seal:** **Authorized Signature of the Supplier:**

Certified that the particulars as per Serial Numbers 2, 7 to 11 are correct as per our records.

Date: **Bank's Stamp** **Authorized Signature of the Officer of the Bank.**

ANNEXURE – “M”

(To be uploaded by bidders on their letter head duly sealed and signed by the authorized signatory)

To
The Regional Director
Reserve Bank of India
Main Office Building
Estate Department
Nagpur-440001.

Name of Work: Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

I / We _____ (Name and address, including Country of location of bidder) have read and understood the contents of the Office Memorandum (OM) F. No. 6/18/2019-PPD dated July 23, 2020 and its subsequent orders / revision issued by Public Procurement Division, Department of Expenditure, Ministry of Finance, Government of India regarding the restrictions on procurement from a bidder of a country which shares a land border with India.

2. I/We _____ certify that _____
(Name of the bidder)
- i. is not from a country sharing land border with India, or
 - ii. is from a country sharing land border with India and has been registered with the Competent Authority, the certificate of which is enclosed, or
 - iii. is from a country sharing land border with India where Government of India has extended lines of credit, or
 - iv. is from a country sharing land border with India where Government of India is engaged in development projects.
- (Strikeout whichever of the above is not applicable).
3. I / We further certify that _____ (Name of bidder) fulfils all requirements in this regard and is eligible to be considered under the provision of the above referred Office Memorandum and its subsequent orders / revision. I/We also undertake that even in case of contracts where we are permitted by the Bank/RBI to sub- contract I/we _____ (Name of bidder) will not sub-contract any work to a contractor from country(ies) sharing land border with India, unless such contractor fulfils all the requirements contained in the above referred office memorandum / order.

4. I/We know and understand that, if this Undertaking / Declaration / Certificate submitted by us is found to be false, the Bank shall be free to reject / terminate our tender / Work Order and that the Bank shall also be free to initiate any legal action in accordance with law including forfeiting of Earnest Money Deposit / Performance Bank Guarantee / Security Deposit and / or debarring us from participating in tenders invited by the Bank in future.

Signature and name of the authorized signatory of the Bidder with Rubber Stamp

Date: Place:

ANNEXURE – “N”

(To be uploaded by the tenderer on their letterhead)

Name of Work: Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

1. I/We (Name of the bidder) declares that

- a) I/we or any of our allied firm* is/ are not debarred/ suspended/ blacklisted by any public institution/ entity in India or any other country as on(last date of submission of bid).
- b) I/ We or any of our allied firm* have not made any transgression in respect of the code of integrity (as mentioned in the tender) with any public institution/ entity in India or any other country in last three years as on(last date of submission of bid).
- c) We will inform the Bank in writing, in case, I/we or any of our allied firm* is/are debarred/ suspended/ blacklisted by any public institution/ entity in India or any other country on or before award of work for the captioned work.

2. I/We.....(Name of the bidder) declare that I/we or our allied firm*(Name of the allied firm(s)) is/are debarred/suspended/ blacklisted by(Name and address of public institution in India or any other country) and the same effective upto(date). A copy of such letter is attached for your information and record.

(seal and signature of the bidder) Date

Place

(Note: strike out one of the above two declarations which is not applicable)

*Allied firm: A firm would be termed as "allied firm" if the management is common, or substantial or majority shares are owned by the banned/ suspended firm and by virtue of this it has a controlling voice. Further all successor firms will also be considered as allied firms.

ANNEXURE – “O”

**Proforma for Indemnifying the Employer Against Non Compliance to Contract labour
Rules/regulations**

(On Non-Judicial Stamp Paper of appropriate value) (To be uploaded along with tender Part-I)

The Regional Director
Reserve Bank of India
Estate Cell- BKC
BKC, C-7, 3rd Floor, Mumbai

Dear Sir

NAME OF WORK: Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

We, M/s (Name of contractor), hereby undertake that we shall comply with all the statutory rules/ regulations with regard to the employment of contract labour and their payment.

We also hereby fully indemnify and keep indemnified the Employer, i.e. Reserve Bank of India, against payments to be made to the contract labour and for the observance of the laws in this regard without prejudice to our right to claim indemnity from our sub-contractors.

Yours faithfully,

For _____

Authorised signatory

NAME AND ADDRESS OF THE CONTRACTOR:

SIGN & SEAL OF THE CONTRACTOR:

Date:

Place:

ANNEXURE - "P"

Proforma for Indemnifying the Employer against Patent Rights

(On Non-Judicial Stamp Paper of appropriate value) (To be uploaded along with tender Part-I)

To,

The Regional Director
Reserve Bank of India
Estate Cell- BKC
BKC, C-7, 3rd Floor, Mumbai

Dear Sir,

NAME OF WORK: Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

We, M/s _____ (Name of Contractor) hereby undertake to fully indemnify and keep indemnified the Employer i.e. Reserve Bank of India against any action, claim or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall ourselves pay any royalties, licence fees etc. which may be payable in respect of any article or part thereof included in the contract or damages, cost and charges of all and every sort that may be legally incurred in respect thereof.

In the event of any claims made under or action brought against Employer in respect of any such matters as aforesaid, we shall, on being notified thereof, at our own expense, settle any dispute or conduct any litigation that may arise therefrom, provided that we shall not be liable to indemnify the Employer if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the Engineer-in-Charge in this behalf.

Yours faithfully,

For _____

Authorised signatory

NAME AND ADDRESS OF THE CONTRACTOR:

SIGN & SEAL OF THE CONTRACTOR:

Date:

Place:

ANNEXURE – “Q”

(To be uploaded along with tender Part-I)

<u>List of Approved make of materials</u> (To be filled by the bidder and submitted along with Part – I)			
Sr.No.	Name of Item	Approved Makes	Makes offered by contractor
1	PVC wire copper conductor 1100 volts grade FR/FRLS.	Finolex/Polycab/KEI	
2	MCBs/RCCBs/DBs/ Contactors/Metal clad AC socket.	Legrand/ Havells/ L&T /Schneider/ ABB / C & S / Siemens	
3.	MS conduit and casing capping, PVC box	Precision/Modi/Prestoplast / BEC/AST/Anchor/Finolex	
4	GI pipe	ACE/ NIC/ Jindal	
5	DCDB Junction box	Phoneix/ Eaton/ Legrand	
6	ACDB Junction box	Schneider/Phoneix/ Legrand	
7	Lugs	Dowell/ Comet	
8	Surge protection device	ABB/ Elmex/ Havells	
9	Solar Panels	Adani/Waaree/Rayzon/Re newSys/Tata Solar	
10	Solar Inverter/ MPPT/Solar optimizer or microinverter	EnPhase/SMA/Solar Edge	

NAME AND ADDRESS OF THE CONTRACTOR:**SIGN & SEAL OF THE CONTRACTOR:****Date:****Place:**



**Reserve Bank of India
Estate Cell, BKC - Mumbai**

Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

Un-Priced Bill of Quantities (not for quote)

A. Un-priced Bid - Solar Plant Installation			
S. No	Description of Item	Qty.	Unit
1	Design, manufacture, supply, installation, Testing and Commissioning of 40 KWp capacity grid interactive SPV based Solar Power System with Solar optimizer or micro-inverter. The system shall have guaranteed annualized AC energy output of 1050 Kilo watt hour (KWH) per year per KWp during the first ten years of operation and as specified in part I of the tender. The rate shall include for all the material required including required quantities of SPV modules (along with Solar optimizer or microinverter) formed into arrays, their mounting arrangement, power conditioning units, required DC & AC distribution panels with surge protection units, data loggers along with PC based arrangement for system performance monitoring through licensed software, metering safety arrangements, civil works, training etc. as defined in Part I of the tender to provide a composite operational system. The work shall include supply, installation, testing and commissioning of the required number of copper bonded earthing stations (minimum 3 Nos. per power plant) as per IS 3043:2018 and 25 x 3 mm copper earth strip on wall/ ceiling/existing trenches/earth, of required length with necessary spacers and saddles at 300 mm interval. The rate shall also include the supply, installation, testing and commissioning of ACDB/DCDB having MCBs of required capacity near the inverter and power cable of required size for transferring the power generated by above solar system from the terrace / inverter to the switch available near the existing meter panel/ electrical substation. The rate shall include for all the taxes, duties, levies, insurance, transportation, loading unloading of the material etc.	1	set

B. Annual Maintenance Charges for Solar Power Plant			
SCHEDULE OF QUANTITY – Solar Plant AMC charges after DLP of One years			
SN	Description	Qty	Unit
2	<p>Comprehensive annual maintenance charges for periodic maintenance/servicing of complete system including providing all spare parts/ tools/ consumables for servicing as required as per good engineering practice, recommendation(s) of the respective equipment manufacturer(s) and instructions of engineer-in-charge as per the scope of work in Part I of the tender. The rate shall include for periodic recharge of sim of the system and monthly cleaning of the solar panels. Rate shall also include for replacing the faulty equipments such as solar panels, Solar optimizer or microinverters, inverter including weather monitoring device, remote monitoring system</p> <p>The rate shall be applicable after one year defect liability period/warranty of entire unit. The rate shall include for all the taxes, duties, levies, insurance, transportation etc.</p>	LS	Per annum

Please note that description given in the e-tendering web site (MSTC) is not complete due to paucity of words. Please refer un-price bid of Part-1 for full description.

Place

Seal and Signature of the Tenderer

Date



Reserve Bank of India
Estate Cell
Bandra Kurla Complex
Mumbai

E - Tender For

Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

Part –II

Name of the Tenderer: _____

Address: _____

Date of pre-bid meeting: 11:00 AM on August 23, 2024 at C-7, 3rd Floor, Estate Cell,
Reserve Bank of India, Bandra (E) - 400051

Due date and time for submission of tender: 03:00 PM on September 04, 2024

This document is the property of Reserve Bank of India (RBI). It may not be copied, distributed or recorded on any medium, electronic or otherwise, without the RBI's written permission thereof, except for the purpose of responding to RBI for the said purpose. The use of the contents of this document, even by the authorized personnel / Agencies for any purpose other than the purpose specified herein, is strictly prohibited and shall amount to copyright violation and thus, shall be punishable under the Indian Law.



**Reserve Bank of India
Estate Cell, BKC - Mumbai**

Design, Supply, Installation, Testing and Commissioning (DSITC) of Grid Interactive SPV based 40 KWp Solar Power Plant (SPP) (Bifacial Mono PERC) with Solar optimizer or micro-inverter in Nalanda Residential Complex, Chembur.

Rates are to be quoted inclusive of GST in the designated rows in online mode only.

A. Price Bid - Solar Plant Installation					
S. No	Description of Item	Qty.	Unit	Rate (Rs.)	Amount (Rs.)
	Head-I Supply of Materials				
1	Design, manufacture, supply, installation, Testing and Commissioning of 40 KWp capacity grid interactive SPV based Solar Power System with Solar optimizer or micro-inverter. The system shall have guaranteed annualized AC energy output of 1050 Kilo watt hour (KWH) per year per KWp during the first ten years of operation and as specified in part I of the tender. The rate shall include for all the material required including required quantities of SPV modules (along with Solar optimizer or microinverter) formed into arrays, their mounting arrangement, power conditioning units, required DC & AC distribution panels with surge protection units, data loggers along with PC based arrangement for system performance monitoring through licensed software, metering safety arrangements, civil works, training etc. as defined in Part I of the tender to provide a composite operational system. The work shall include supply, installation, testing and commissioning of the required number of G.I.pipe earthing stations (minimum 3 Nos. per power plant) as per IS 3043:2018 and 25 x 3 mm G.I. earth strip on wall/ ceiling/existing trenches/earth, of required length with necessary spacers and saddles at 300 mm interval. The rate shall also include the supply, installation, testing and commissioning of	1	Set		

	<p>ACDB/DCDB having MCBs of required capacity near the inverter and power cable of required size for transferring the power generated by above solar system from the terrace / inverter to the switch available near the existing meter panel/ electrical substation.</p> <p>The rate shall include for all the taxes, duties, levies, insurance, transportation, loading unloading of the material etc.</p>				
In words -					
B. Comprehensive Annual Maintenance Charges for Solar Power Plant					
2	<p>Comprehensive annual maintenance charges for periodic maintenance/servicing of complete system including providing all spare parts/ tools/ consumables for servicing as required as per good engineering practice, recommendation(s) of the respective equipment manufacturer(s) and instructions of engineer-in-charge as per the scope of work in Part I of the tender. The rate shall include for periodic recharge of sim of the system and monthly cleaning of the solar panels. Rate shall also include for replacing the faulty equipments such as solar panels, Solar optimizer or microinverters, inverter including weather monitoring device, remote monitoring system etc.</p> <p>The rate shall be applicable after one year defect liability period/warranty of entire unit. The rate shall include for all the taxes, duties, levies, insurance, transportation etc.</p>	LS	Per annum		
	In words -				