MUMBAI METRO RAIL CORPORATION LIMITED (MMRC)
(Joint Venture of Govt. of India and Govt. of Maharashtra)
MMRCL Line 3 Transit Office, Wing 'A', 'E' Block, Bandra Kurla Complex,
Bandra (East), Mumbai 400051, India.

Invitation for Bids for "Design Engineering Supply Installation Testing Commissioning and Comprehensive Operation and Maintenance of Roof Top Solar PV Project and associated support structure works on RESCO Model for a Period of 25 Years on Aarey Station & Depot Buildings of Mumbai Metro Line -3 (MML-3) Project

Date: [13th January 2025]
NIT/ IFB Number: [MM3-CBS-DEP-SOL]
Tender ID: 2024_MMRCL_217261_1

Addendum No. 1

<table>
<tr><th>Sr. No.</th><th>Bidding Documents Reference and Clause No.</th><th>Amendment</th></tr>
<tr><td>1</td><td>NOTICE INVITING TENDER (NIT)/ INVITATION FOR BIDS (IFB),
1.2 Bid Schedule/ Details</td><td>Replace
<table>
<tr><td>h)</td><td>Date and time of submission of Online Bid</td><td>16.01.2025 up to 15:00 Hrs</td></tr>
<tr><td>i)</td><td>Date & Time of opening of Bid
(Technical Bid only)</td><td>17.01.2025 at 15:30 Hrs.</td></tr>
</table>
With
<table>
<tr><td>h)</td><td>Date and time of submission of Online Bid</td><td>06.02.2025 up to 15:00 Hrs</td></tr>
<tr><td>i)</td><td>Date & Time of opening of Bid
(Technical Bid only)</td><td>07.02.2025 at 15:30 Hrs.</td></tr>
</table></td></tr>
<tr><td>2.</td><td>Part 3-Conditions Of Contract And Contract Forms,
Section 9 –Contract Forms
Clause 5.2 Metering</td><td>Add
Point (g) - Purchaser will not provide/construct any structure within its Premises or around its premises which shades the solar panels effecting the generation of the energy during the Agreement period. However, if necessary, it shall be dealt in accordance with Clause 8.3 (k)-Relocation.</td></tr>
</table>

Sr. No.	Bidding Documents Reference and Clause No.	Amendment
3	Part 3-Conditions Of Contract And Contract Forms, Section 9 –Contract Forms Clause 5.3 System Disruptions (b)	**Replace Sentence** To ensure the water proofing a third party inspection jointly with power producer and power purchaser will be conducted annually. **With** To ensure the water proofing a **joint inspection by power producer and power purchaser** will be conducted annually.
4	Part 3-Conditions Of Contract And Contract Forms, Section 9 –Contract Forms Clause 8.3 Purchaser's Covenants	**Add** **Point (k)- Relocation** - If one or more of the Solar Power Plant panels needs to be temporarily moved or its generation suspended, for any other reason requested by the Power Purchaser, the Power Purchaser will be responsible for pre-agreed costs on actuals only, arising from moving, disassembling and re-installing/ commissioning the Solar Power Plant, as agreed between the Parties. The Power Producer will be responsible for providing detailed documentary proof of the actual pre-agreed costs borne for such relocation/disassembling. Within 30 days of these satisfactory documents being provided by the Power Producer, the Purchaser shall reimburse these pre-agreed expenses in full, and delayed payment beyond the date mentioned above will attract Late Payment charges as described in Clause 7.6. During any interruption in generation during such relocation, the Purchaser will continue to be billed as per Deemed Generation, during the period of interruption, for the affected Solar Power Plant(s).
5	Part 3-Conditions Of Contract And Contract Forms, Section 9 –Contract Forms Clause 12.1 Power Producer Defaults and Purchaser Remedies - (a) Power Producer Defaults: point (iv)	**Replace** Penalty = 2 X (committed generation as per Schedule-IV of PPA – Actual generation during the same period) X (Average cost of electricity from grid per unit at the end of that year applicable to power purchaser – applicable solar power tariff payable to power producer for that year). **With** Penalty = **1** X (committed generation as per Schedule-IV of PPA – Actual generation during the same period) X (Average cost of electricity from grid per unit at the end of that year applicable to power purchaser – applicable solar power tariff payable to power producer for that year).

Sr. No.	Bidding Documents Reference and Clause No.	Amendment
6	Bidding Documents Part-II Section 6B: Technical Specification Clause 1.1.2 point (g)- iv	**Replace** I-V (Current – Voltage) curves at STC (standard test conditions) should be provided by bidder. **With** I-V (Current – Voltage) curves at STC (standard test conditions) **for 10% of each manufacturing lot** shall be provided by bidder.
7	Bidding Documents Part-II Section 6B: Technical Specification Clause 2- ARRAY STRUCTURE point (b)	**Replace** The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed. It may be ensured that the design has been certified by a recognized Lab/ Institution in this regard and submit wind loading calculation sheet to MMRC in compliance to standards governing, as on date like IS-875, NBC etc. Suitable fastening arrangement such as grouting and clamping should be provided to secure the installation against the specific wind speed. **With** The Mounting structure shall be so designed to withstand the speed for the wind zone of the location where a PV system is proposed to be installed. It may be ensured that the design has been certified by a recognized Lab/ Institution**/ Certified Structural Engineer** in this regard and submit wind loading calculation sheet to MMRC in compliance to standards governing, as on date like IS-875, NBC etc.
8	Bidding Documents Part-II Section 6B: Technical Specification Clause 2- ARRAY STRUCTURE point (g)	**Replace** The total load of the structure (when installed with PV modules) on the terrace should be less than 60 kg/m2. **With** The total load of the structure (when installed with PV modules) **on the PEB shed should be less than 60 kg/m2.** The total load of the structure (when installed with PV modules) **on the RCC roof should be less than 75kg/m2.**
9	Bidding Documents Part-II Section 6B: Technical Specification Clause 13- CABLES :point (i)	**Replace** Shall meet IEC 60227/IS 694, IEC 60502/IS1554 standards **With** Shall meet IEC 60227/IS 694/ **IS7098**, IEC 60502/ IS1554/ **EN50618** Standards

Sr. No.	Bidding Documents Reference and Clause No.	Amendment
10	Bidding Documents Part-II Section 6B: Technical Specification Clause 14-CONNECTIVITY point (b)	**Refer Attachment 1 to Addendum 1 for Single Line Diagram for Power evacuation at Station ASS-27, OCC ASS-1 & Depot ASS-2.**
11	Part 3-Conditions Of Contract And Contract Forms, Section 9 –Contract Forms Clause 2. Effective Date and Completion period	**Replace** "Effective Date" means the date of commencement. **With** "Effective Date" means the **date of signing the CONTRACT AGREEMENT**. **Replace in Bid Documents (wherever applicable)** Completion period for Design, Engineering, Supply, Installation, Testing, and Commissioning of Roof Top Solar PV shall be 12 months from the Commencement date. **With** Completion period for Design, Engineering, Supply, Installation, Testing, and Commissioning of Roof Top Solar PV shall be 12 months **from the Effective Date (Date of signing the CONTRACT AGREEMENT)**.
12	Part 3-Conditions Of Contract And Contract Forms, Section 9 –Contract Forms Clause 3.1 Term	**Replace** The term of the Agreement shall commence on the Effective Date and shall continue for twenty five (25) years from the Commercial Operations Date (the "Term"), unless and until terminated earlier pursuant to the provisions of the Agreement. After the Term, the ownership of the System shall be transferred to the Purchaser free of cost. **With** The term of the Agreement shall commence on the Effective Date and shall continue for twenty five (25) years from the Commercial Operations Date (the "Term"), unless and until terminated earlier pursuant to the provisions of the Agreement. After the Term, the ownership of the System shall be transferred to the Purchaser **at a nominal value of Rs.1**.

Sr. No.	Bidding Documents Reference and Clause No.	Amendment
13	Part 3-Conditions Of Contract And Contract Forms, Section 9 –Contract Forms Clause 8.3 Purchaser's Covenants point (i) water	**Replace** Power Producer shall arrange water, as per the requirements of the Power Producer, for periodic cleaning of the solar panels. If water is available with MMRC, the raw water connection point may be provided by MMRC at site. Power Producer obtains water by providing and laying pipes etc, from nearest water connection point made available. Water for cleaning of solar panels shall be made available to developer at chargeable basis. If water is not available with MMRC, the developer has to arrange water for cleaning of solar panels. **With** **MMRC will provide the raw water free of cost at an existing source(s) at the premise/site as per availability. The arrangement for conveyance of water at required location shall be made by Power Producer at his own cost. The Power Producer have to install water meter at each site for measuring the water consumed and the information to be shared every month with MMRC. To economize the water consumption the Power producer shall take adequate measures.**
14	Part 3-Conditions Of Contract And Contract Forms, Section 7 –General Conditions of Contract Clause 21.2 Early Commissioning	**Delete** **Clause 21.2 Early Commissioning**
15	Bidding Documents Part-II Section 6B: Technical Specification Clause 25- INCREASE/ DECREASE OF BIDDER ALLOCATED CAPACITY 25.1	**Replace** MMRC reserves the right to increase/decrease the Bidder Allocated Capacity by up to twenty five percent (25%) for each station/site or any other site at the sole discretion of MMRC. **With** **The Allocated Power Capacity may be decreased up to 25% at the sole discretion of MMRC. However, there is no cap on increased generation capacity.**
16	Bidding Documents Part - Section 1 - Instructions to Bidders- A – General Clause 1..2	**Add Point** **(e)- Employer means Power Purchaser** **(f) Contractor means Power Producer**

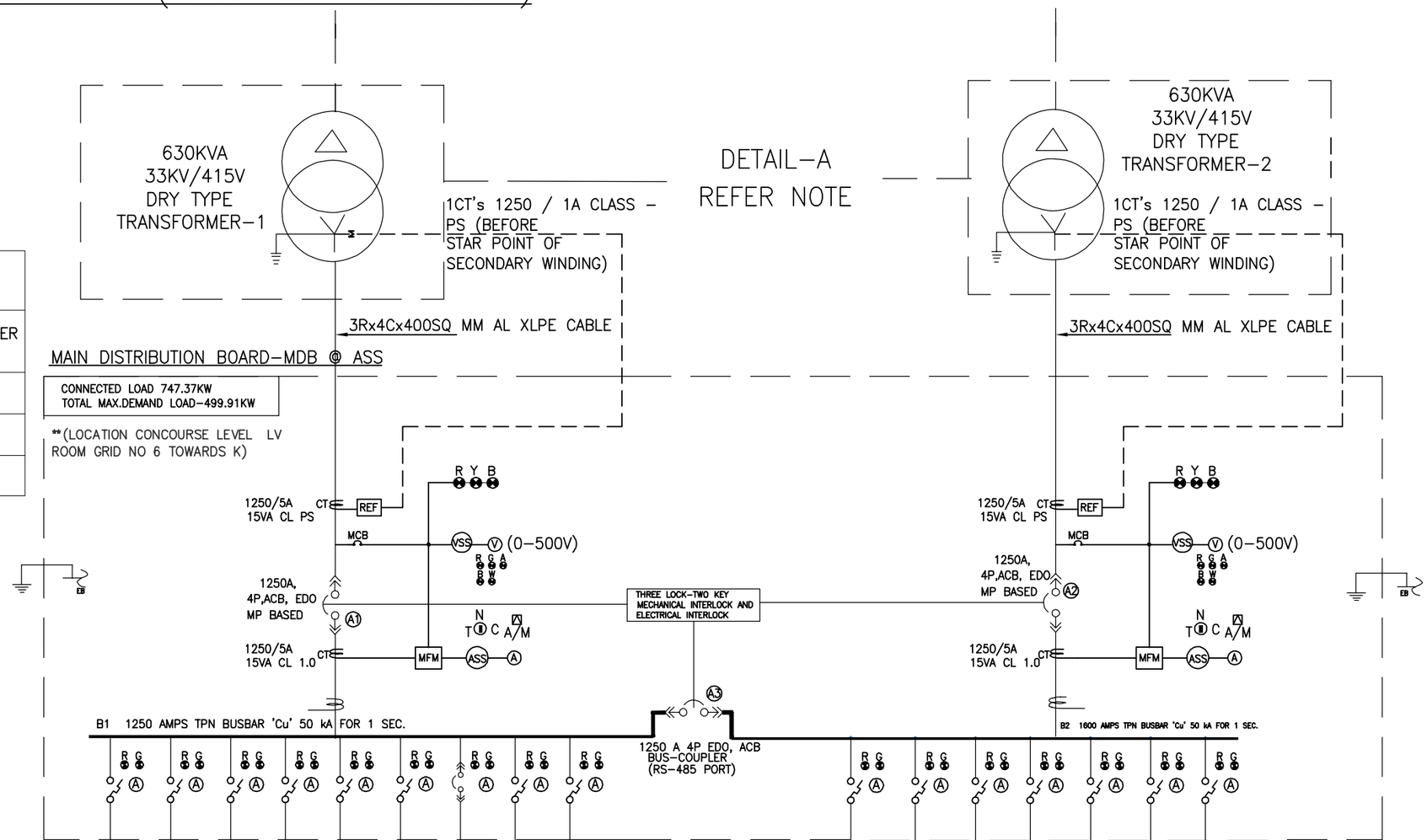
Sr. No.	Bidding Documents Reference and Clause No.	Amendment
17	Part 3-Conditions Of Contract And Contract Forms, Section 9 –Contract Forms Clause 7 Tariff and Payment (7.1)	**Replace Last Paragraph** The Power Producer will bill the Purchaser for each kWh metered as above at the Delivery Point, at the Tariff prevailing at that point of time. **With** The Power Producer will bill the Purchaser for each kWh metered as above at the Delivery Point, **at the 'Tariff'**.
18	Part 3-Conditions Of Contract And Contract Forms, Section 9 –Contract Forms Clause 7.8 Change in Law (vi)	**Delete Para** **(**vi) The change in the rate of any existing tax will not be considered a change in law

Place: Mumbai,
Date: 13th January 2025

Sd/-
(Praphull Wagh)
Chief General Manager /Electrical
Mumbai Metro Rail Corporation Ltd.

ADDENDUM 1 – ATTACHMENT 1 (ASS–27 STATION)

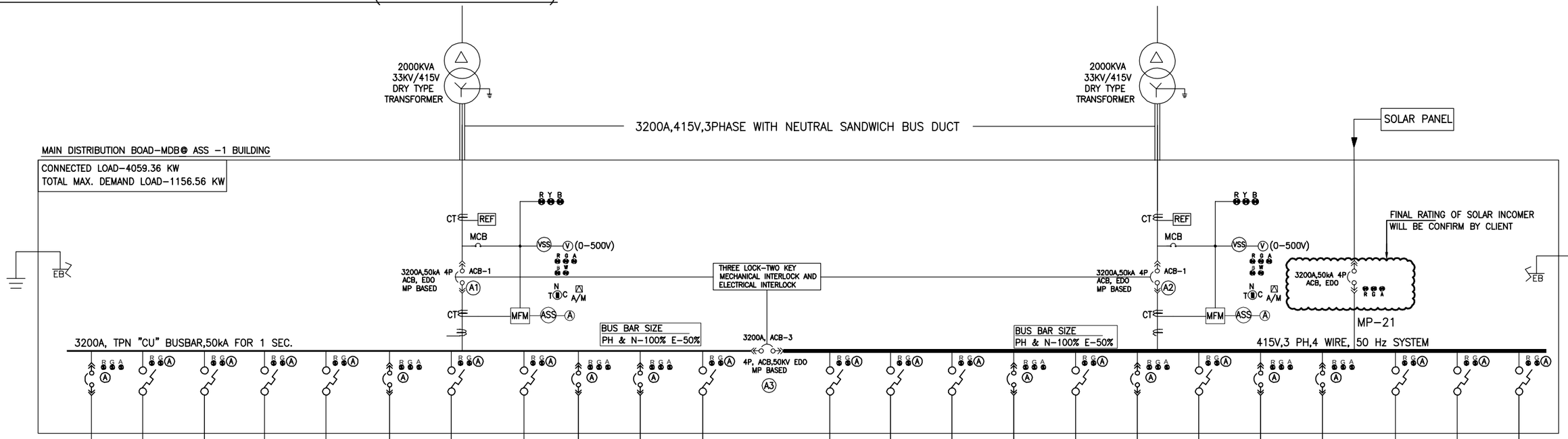
ELECTRICAL & MECHANICAL INTERLOCK AT MAIN LT PANEL(MDB) 2/3 INTERLOCK			
SL. NO	NORMAL INCOMER ACB–1(A1)	NORMAL INCOMER ACB–2(A2)	BUS– COUPLER ACB–3(A3)
1	ON	ON	OFF
2	OFF	ON	ON
3	ON	OFF	ON



FEEDER NUMBER	F1	F2	F3	F4	F5	F6	F7	F8	F9
CONNECTED LOAD IN kW	419.32	23.50	45.00	88.72	-	-	-	-	113.01
SWITCHGEAR RATING	630 A	125 A	250 A	250 A	400 A	1000 A	630 A	400 A	250 A
SWITCHGEAR TYPE	FP MCB	TPN MCCB	TPN MCCB	TPN MCCB	FP MCCB	FP ACB	FP MCCB	FP MCCB	FP MCCB
BREAKING CAPACITY IN KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA
RUNS/CORE/CABLE SIZE IN Sq.MM	3Rx4Cx240	1Rx4Cx70	2Rx4Cx120	1Rx4Cx95	2Rx4Cx150	–	–	–	1Rx4Cx240
FEEDER DESCRIPTION	EPP	WPP	ESCAL POWER PANEL	80KVA UPS	APFC PANEL–1	SOLAR	SPARE	SPARE	TVE PANEL OFFICE AREA

F10	F11	F12	F13	F14	F15	F16
231.00	419..32	20.00	100.23	-	-	113.01
400 A	630 A	125 A	160 A	400 A	400 A	250 A
FP MCCB	FP MCCB	TPN MCCB	FP MCCB	FP MCCB	FP MCCB	FP MCCB
50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA
1Rx4Cx240	3Rx4Cx240	1Rx4Cx70	1Rx4Cx120	2Rx4Cx150	-	1Rx4Cx240
FIRE PUMP PANEL	EPP	PA PANEL	MLP	APFC PANEL	SPARE	TVE PANEL OFFICE AREA

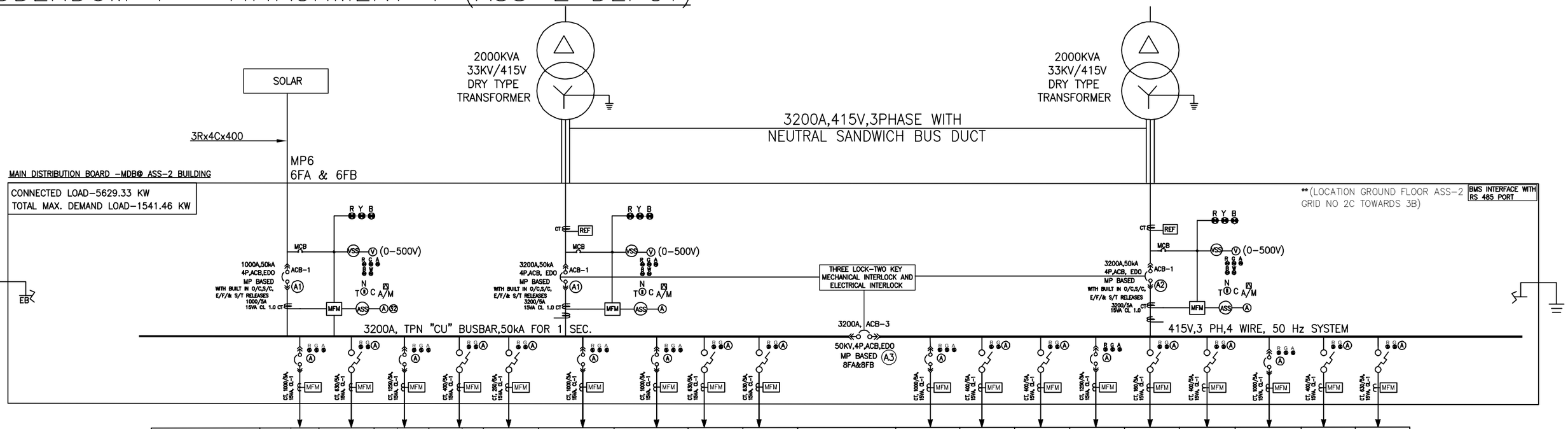
ADDENDUM 1 – ATTACHMENT 1 (ASS–1 OCC)



FEEDER NUMBER	MP–1	MP–2	MP–3	MP–4	MP–5	MP–6	MP–7	MP–8	MP–9	MP–10	MP–11
SWITCHGEAR RATING IN AMPS	800A	100A	160A	160A	100A	1600A	100A	160A	800A	800A	250A
SWITCHGEAR TYPE	4P,ACB	TPN MCCB	TPN MCCB	TPN MCCB	TPN MCCB	4P,ACB	TPN MCCB	TPN MCCB	4P,ACB	4P,ACB	TPN MCCB
BREAKING CAPACITY IN KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA
CONNECTED LOAD IN KW	481.00	52.85	45.57	33.00	39.00	1297.54	30.00	70.00	–	–	–
RUNS/CORE/CABLE SIZE IN Sq.MM	2Rx4Cx400	1Rx4Cx95	1Rx4Cx70	1Rx4Cx25	1Rx4Cx50	5Rx4Cx400	1Rx4Cx50	1Rx4Cx120	3Rx4Cx185		
FEEDER DESCRIPTION	CHILLER PANEL	SDB LIGHTING	VAC PANEL–2	TREATMENT PLANT	SIMULATOR ROOM[OS]	EPP	COMPRE–SSOR–1	MOBILE LIFTING JACK	350 KVAR CAP.PANEL	SPARE	SPARE

MP–12	MP–13	MP–14	MP–15	MP–16	MP–17	MP–18	MP–19	MP–20	MP–21	MP–22	MP–23
400A	160A	100A	400A	400A	1600A	100A	800A	800A	400A	100A	100A
TPN MCCB	TPN MCCB	TPN MCCB	4P,ACB	TPN MCCB	4P,ACB	TPN MCCB	4P,ACB	4P,ACB	TPN MCCB	TPN MCCB	TPN MCCB
50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA
156.59	33.00	39.00	250.00	204.28	1297.54	30.00	–	–	–	–	–
1Rx4Cx300	1Rx4Cx25	1Rx4Cx50	2Rx4Cx240	1Rx4Cx240	5Rx4Cx400	1Rx4Cx50	3Rx4Cx185	–	–	–	–
VAC PANEL–1	TREATMENT PLANT	SIMULATOR ROOM [OS]	FIRE PUMP PANEL	SDB POWER	EPP	COMPRE–SSOR–2	350 KVAR CAP.PANEL	SPARE	SPARE	SPARE	SPARE

ADDENDUM 1 – ATTACHMENT 1 (ASS–2 DEPOT)



FEEDER NUMBER	MP1	MP2	MP3	MP4	MP5	MP6	MP7	MP8	MP9
GAD FEEDER NUMBER	3FA&3FB	1FA	4FA&4FB	2FA	2FD	6FA & 6FB	5FA&5FB	1FC	2FC
SWITCHGEAR RATING IN AMPS	1000A	630A	1250A	400A	250A	1000A	1000A	630A	630A
SWITCHGEAR TYPE	FP,ACB	TPN,MCCB	4P,ACB	TPN,MCCB	TPN,MCCB	4P,ACB	4P,ACB	TPN,MCCB	TPN,MCCB
BREAKING CAPACITY IN KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA
CONNECTED LOAD IN KW	721.80	177.45	1576.10	491.20	34.50	–	–	–	–
RUNS/CORE/CABLE SIZE IN Sq.MM	4Rx4Cx400	2Rx4Cx400	4Rx4Cx400	1Rx4Cx400	1Rx4Cx120	3Rx4Cx400	3Rx4Cx400	–	–
FEEDER DESCRIPTION	MDB–1 (MIWCP)	MDB (UFWL)	EPP–1	WORKSHOP SHED POWER PANEL	ROLLING STOCK OFFICE	SOLAR INCOMER	400 KVAR CAP.PANEL–1	SPARE	SPARE

MP10	MP11	MP12	MP13	MP14	MP15	MP16	MP17	MP18
10FA&10FB	14FC	13FB	11FA&11FB	13FC	14FA	12FA&12FB	13FA	14FB
1000A	400A	400A	1250A	160A	400A	1000A	630A	400A
4P,ACB	TPN,MCCB	TPN,MCCB	4P,ACB	TPN,MCCB	TPN,MCCB	4P,ACB	TPN,MCCB	TPN,MCCB
50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA	50 KA
1000.50	183.69	311.00	1576.10	330.12	634.20	–	–	–
4Rx4Cx400	1Rx4Cx300	2Rx4Cx240	4Rx4Cx400	1Rx4Cx400	2Rx4Cx400	3Rx4Cx400	–	–
MDB–2 (MIWCP)	AUTO WASH PLANT	FIRE PUMP PANEL	EPP–2	SSPP–1	SSPP–2	400 KVAR CAP.PANEL–2	SPARE	SPARE