पी डी आई एल PDIL	**AIR SEPARATION UNIT TO BE DEVELOPED BY BOO PROCESSOR TO GENERATE OXYGEN AND NITROGEN FOR COAL GASIFICATION COMPLEX AT BARDHMAN, WEST BENGAL** **COAL GAS INDIA LIMITED (CGIL)**	COAL GAS INDIA LIMITED

Date 30.04.2026

CORRIGENDUM-V

NIT NO., : NIT No: PNMM/PC-217/E-002 Dated 31.12.2025

SUB. : AIR SEPARATION UNIT TO BE DEVELOPED BY BOO PROCESSOR TO GENERATE OXYGEN AND NITROGEN FOR COAL GASIFICATION COMPLEX AT BARDHMAN, WEST BENGAL

This is for information to all Bidders who are willing to participate in the subject NIT, that CORRIGENDUM-V date 30.04.2026 is being issued and shall be read in conjunction to the NIT and subsequent Amendments issued till date.

*All other terms & conditions of NIT shall be as per original NIT and subsequent Amendment(s).

For & on behalf of
COAL GAS INDIA LIMITED (CGIL)

Ritu Agarwal

(Ms. Ritu Agarwal)
Dy. General Manager & HOD (M.M)
Ph.:-+ 91-9717104054
Email: rituagarwal@pdilin.com

AIR SEPARATION UNIT ON BUILD-OWN-OPERATE (BOO) BASIS AT BARDHAMAN, WEST BENGAL, (INDIA)
(NIT NO : PC217/E/002 DATED: 31.12.2025)
Corrigendum –V : Technical(Process) dated 30.04.2026

SL. NO.	REFERENCE OF BIDDING DOCUMENT				AMENDMENT TYPE M/D/A	MODIFICATION
	Part/Sec.	Page No.	Clause No.	Description as per NIT		
1	PART-II/ SECTION-1.2	5 of 5	2.22 (OTHER REQUIREMENTS)	Drawing showing minimum instrument required at Battery Limit interface is attached as **Annexure-II**.	A	Drawing showing minimum instrument required at Battery Limit interface is attached as **Annexure-II**. **Battery Limit shall means the flange(s) (for utilities) / points (for power) where BOO OPERATOR Production Plant will be connected to Owner's Plant for receiving the Utilities and delivering the Products/ Effluent & emissions (if any).**
2	PART-II/ SECTION-1.2	3 of 5	1.0 (GENERAL)	The Scope of Work for BOO Processor shall include a brand new Air Separation Unit (ASU) as per the requirements and specifications mentioned in the technical portion of the NIT, with its necessary ancillary facilities …… …… specified in Volume II, Design Basis, to CGIL at Delivery Point and required facilities for supply of products viz. Oxygen, Nitrogen **and Argon** to other customers	D	The Scope of Work for BOO Operator shall include a brand new Air Separation Unit (ASU) as per the requirements and specifications mentioned in the technical portion of the NIT, with its necessary ancillary facilities …… specified in Volume II, Design Basis, to CGIL at Delivery Point and required facilities for supply of products viz. Oxygen and Nitrogen ~~**and Argon**~~ to other customers after fulfilling CGIL's entire requirements. The Air Separation Unit shall also include all Ancillary Equipment, Utilities System and Interconnecting Pipelines up-to Delivery Point.

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				after fulfilling CGIL's entire requirements. The Air Separation Unit shall also include all Ancillary Equipment, Utilities System and Interconnecting Pipelines up-to Delivery Point.		
3	PC217/E/002/ P-II/SEC-1.4	5-8 of 18	**3.0**)	**Guarantee**	M	Refer attachment-1
4	PC217/E/002/ P-II/SEC-1.4	9 of 18	4.3 (Plant Availability)	Plant availability factor should be 100% excluding the planned shutdowns.	A	Plant availability factor should be 100% excluding the planned shutdowns. **100 % plant availability is corresponding to 330 stream days.**

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5	PC217/E/002/ P-II/SEC-3.3	5-6 of 7	**2.1**	**As-Built Drawings:**	M	Refer attachment-2
6	General			BOO Processor	M	BOO Processor wherever appearing in the Tender shall be read as '**BOO Operator'.**
7	PC217/E/002/ P-II/SEC-1.4	4 of 18	2.2 (Brief Description of the Proposed Plant)	Air is filtered to remove particulates and is then compressed in the Main Air Compressor (considered in vendor scope of supply)…..…… ……. cold box is passed through an expander, where the pressure of the gas is reduced to create refrigeration. ……..Gaseous oxygen shall be available at B/L conditions as	A	Air is filtered to remove particulates and is then compressed in the Main Air Compressor (considered in vendor scope of supply)…..…… ……. cold box is passed through an expander, where the pressure of the gas is reduced to create refrigeration. ……..Gaseous oxygen shall be available at B/L conditions as mentioned in section 1.5, …….. The pumped Oxygen may be vaporized for required designed capacity. Number of vaporizers and vaporizer type shall be decided

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				mentioned in section 1.5, …….. The pumped Oxygen may be vaporized for required designed capacity. Number of vaporizers and vaporizer type shall be decided by vendor.		by vendor. **To take care Off-Spec. Oxygen Product at Battery Limit of ASU Plant; there should be mechanism of auto-Switchover of Oxygen flow from Storage to meet the Quality Specification.**

LEGEND:

M: MODIFICATION, A: ADDITION, D: DELETION.

Encl: As Above

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	Part/Sec.	Page No.	Clause No.	Description as per NIT		
1.	PART-II/ SECTION-1.4	3 &4 of 18	**2.0 (REQUIREMENT PERTAINING TO AIR SEPARATION UNIT)**	**HP GASEOUS OXYGEN AT BATTERY LIMIT OF ASU PACKAGE** Pressure, kg/cm2g (Min/ Nor/ Max) 51/52/54 Temperature, °C (Min/ Nor/ Max) Ambient Purity (Vol %) 99.6 Quantity Nm3/h(min/Nor /Max) 70000/113500/ 124000	M	**HP GASEOUS OXYGEN AT BATTERY LIMIT OF ASU PACKAGE** Pressure, kg/cm2g (Min/ Nor/ Max) 51/52/54 Temperature, °C (Min/ Nor/ Max) Ambient Purity (Vol %) 99.6 Quantity Nm3/h(min/Nor /Max) ~~**70000/113500/ 124000**~~ **68100**/113500/ **136200**
2.	PART-II/ SECTION-1.4	4 of 18	**2.0 (REQUIREMENT PERTAINING TO AIR SEPARATION UNIT)**	**LP Nitrogen shall be made available at the battery limit at the specified condition indicated below:** **LP NITROGEN AT BATTERY LIMIT OF ASU PACKAGE**	M	**LP Nitrogen shall be made available at the battery limit at the specified condition indicated below:** **LP NITROGEN AT BATTERY LIMIT OF ASU PACKAGE** Pressure, kg/cm2g (Min/ Nor/ Max) 6.0/8.0/9.0

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	Part/Sec.	Page No.	Clause No.	Description as per NIT		
				Pressure, kg/cm2g (Min/ Nor/ Max) 6.0/8.0/9.0 Temperature, °C (Min/ Nor/ Max) Ambient N2, Vol %, min 99.99% O2, Vol ppm < 10 Quantity Nm3/h(min/Nor/Max) Appx 37000 NM_3/hr		Temperature,°C (Min/ Nor/ Max) Ambient N2, Vol %, min 99.99% O2, Vol ppm < 10 Quantity Nm3/h(min/Nor/Max) ~~**Appx 37000 NM_3/hr**~~ **22200**/37000/ **44400**

AIR SEPARATION UNIT ON BUILD-OWN-OPERATE (BOO) BASIS AT BARDHAMAN, WEST BENGAL, (INDIA)
(NIT NO : PC217/E/002 DATED: 31.12.2025)
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<table>
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<tr><th>Part/Sec.</th><th>Page No.</th><th>Clause No.</th><th>Description as per NIT</th></tr>
<tr><td>3.</td><td>PART-II/ SECTION-1.4</td><td>4 of 18</td><td>2.0 (REQUIREMENT PERTAINING TO AIR SEPARATION UNIT)</td><td>HP Nitrogen shall be made available at the battery limit at the specified condition indicated below:

HP NITROGEN AT BATTERY LIMIT OF ASU PACKAGE

Pressure, kg/cm2g (Min/ Nor/ Max) 75/77/82

Temperature, °C (Min/ Nor/ Max) Ambient

N2, Vol %, min 99.99%

O2, Vol ppm < 10

Quantity Nm3/h(min/Nor/Max) Appx. 33000 NM3/hr (during Start-up)2000 Nm3/hr during Normal operation</td><td>M</td><td>HP Nitrogen shall be made available at the battery limit at the specified condition indicated below:

HP NITROGEN AT BATTERY LIMIT OF ASU PACKAGE

<table><tr><td>Pressure, kg/cm2g (Min/ Nor/ Max)</td><td>75/77/82</td></tr><tr><td>Temperature, °C (Min/ Nor/ Max)</td><td>Ambient</td></tr><tr><td>N2, Vol %, min</td><td>99.99%</td></tr><tr><td>O2, Vol ppm</td><td>< 10</td></tr><tr><td>Quantity Nm3/h(min/Nor/Max)</td><td>1200/2000/44400 NM3/hr (44400 during Start-up)<s>2000 Nm3/hr during Normal operation</s></td></tr></table></td></tr>
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Corrigendum –V : Technical(Process) dated 30.04.2026

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	Part/Sec.	Page No.	Clause No.	Description as per NIT		
4.	PART-II/ SECTION-1.4	5 of 18	**2.4 Product Storage:**	**Liquid Oxygen:** BOO Processor to consider **350 m_3 of Liquid Oxygen Storage** to meet the Oxygen demand through vaporizers in case of any upset operation of the plant or Startup demand. **Liquid Nitrogen:** BOO Processor to Provide **950 m_3 of Liquid Nitrogen Storage** to meet the LP Nitrogen demand through vaporizers in other offsite or other Plant facilities for Startup/ Upset requirement.	M	**Liquid Oxygen:** BOO Processor to consider **350 m_3 of Liquid Oxygen Storage** to meet the Oxygen demand through vaporizers in case of any upset operation of the plant or Startup demand. **Liquid Nitrogen:** BOO Processor to Provide **950 m_3 of Liquid Nitrogen Storage** to meet the LP Nitrogen demand through vaporizers in other offsite or other Plant facilities for Startup/ Upset requirement. **Note:** **i. The above Liquid Nitrogen & Liquid Oxygen capacities are the working capacities.** **ii. No back up liquid products i.e. Liq. O2 and / or Liq. N2 shall be used during PGTR to fulfill products flow requirements.**

LEGEND:

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AIR SEPARATION UNIT ON BUILD-OWN-OPERATE (BOO) BASIS AT BARDHAMAN, WEST BENGAL, (INDIA)
(NIT NO : PC217/E/002 DATED: 31.12.2025)
Corrigendum –V : Technical(Projects) dated 30.04.2026

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	Part/ Sec.	Page No.	Clause No.	Description as per NIT		
1.0	PNPM/PC-217/E/002/P-II/Sec.-1.3	3 of 8	3.2 PROJECT PROCEDURES AND METHODOLOGY	Detailed Technical Requirements along with the Detailed Scope of Work and overall proposed implementation schedule shall be prepared by BOO PROCESSOR. These will form the basis for formulation of the overall Project schedule of the plant by BOO PROCESSOR. BOO PROCESSOR is required to organise his services in a systematic manner to ensure execution and completion of the unit as per the schedule. BOO PROCESSOR is required to submit along with his bid the methodology/procedure proposed by him for this unit together with the organisational set up proposed and bio-data of Key personnel. In order to achieve uniformity in execution of various activities of the Hydrogen and Nitrogen Plant, BOO PROCESSOR shall develop Engineering Design Basis and Project Procedures/ Methodologies to be adopted by the executing agency. BOO PROCESSOR is required to carry-out his supply of Know-How, Process Package,	A	Detailed Technical Requirements along with the Detailed Scope of Work and overall proposed implementation schedule shall be prepared by BOO OPERATOR. These will form the basis for formulation of the overall Project schedule of the plant by BOO OPERATOR. BOO OPERATOR is required to organise his services in a systematic manner to ensure execution and completion of the unit as per the schedule. BOO OPERATOR is required to submit along with his bid the methodology/procedure proposed by him for this unit together with the organisational set up proposed and bio-data of Key personnel. In order to achieve uniformity in execution of various activities of the Hydrogen and Nitrogen Plant, BOO OPERATOR shall develop Engineering Design Basis and Project Procedures/ Methodologies to be adopted by the executing agency. BOO OPERATOR is required to carry-out his supply of Know-How, Process Package, detailed engineering, procurement, tendering, construction supervision and management, planning scheduling, monitoring, reviewing, reporting, and Overall Project Management activities in accordance with the job specifications / procedures developed by BOO OPERATOR based on the methodologies / procedures. All activities to be performed/services to be rendered by BOO OPERATOR under this contract shall be monitored by CGIL/PMC and will be subject to periodic reviews by the PMC. BOO OPERATOR shall facilitate such reviews/monitoring by CGIL/ PMC. .

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				detailed engineering, procurement, tendering, construction supervision and management, planning scheduling, monitoring, reviewing, reporting, and Overall Project Management activities in accordance with the job specifications / procedures developed by BOO PROCESSOR based on the methodologies / procedures. All activities to be performed/services to be rendered by BOO PROCESSOR under this contract shall be monitored by CGIL/PMC and will be subject to periodic reviews by the PMC. BOO PROCESSOR shall facilitate such reviews/monitoring by CGIL/ PMC.		**Note:1 Contractor shall provide all the required data to PMO (Project Management Office) appointed by CGIL for the project for successfully carrying out the Project Management activity. Contractor shall enable the interface for project data retrieval/sharing from its document management system or any other system to the digital dashboard of PMO.** **Note:2 Project Manager should possess the (Full Time Team Leader) with BE or BTech degree qualification with past experience of more than 15 Yrs.**

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