



**GUJARAT INDUSTRIES POWER COMPANY LIMITED
SURAT LIGNITE POWER PLANT (SLPP)**

VOLUME II — TECHNICAL SPECIFICATIONS

PACKAGE C

CONTINGENCY SURFACE FEEDER ARRANGEMENT

(Temporary / Contingency Lignite Feeding During Package A Construction)

Design, Engineering, Supply, and Construction of package A, B,, C & D
**New Lignite Feeding System, Associated Works, Contingency Feeding
Arrangement & Dismantling**

Tender No.: GIPCL/SLPP/R&M/LHS/FB-RE/LOCATION/EPC/2026

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Gujarat Industries Power Company Limited
Surat Lignite Power Plant (SLPP), Village: Nani Naroli, Taluka: Mangrol, Dist.:
Surat, Gujarat

TABLE OF CONTENTS

SECTION-1.	DETAILED SCOPE OF WORK: PACKAGE C	3
SECTION-2.	SYSTEM DESCRIPTION	7
SECTION-3.	TECHNICAL SPECIFICATIONS — MECHANICAL	8
SECTION-4.	ELECTRICAL TECHNICAL SPECIFICATIONS	9
SECTION-5.	CIVIL AND STRUCTURAL SPECIFICATIONS.....	9
SECTION-6.	DATA SHEET TO BE FILLED BY BIDDER	9
SECTION-7.	FACTORY ACCEPTANCE TEST (FAT) — PACKAGE C.....	10
SECTION-8.	QAP AND FIELD QUALITY PLAN — PACKAGE	10
SECTION-9.	Indicative QAP Is Provided Below. Bidder/OEM Has To Provided The Same For Approval.	10
SECTION-10.	MANDATORY SPARE PARTS — PACKAGE C	11
SECTION-11.	Indicative LIST is provided below. Bidder/OEM has to provided the same for approval	11
SECTION-12.	APPROVED MAKES — PACKAGE C.....	11
SECTION-13.	PERFORMANCE GUARANTEE TEST — PACKAGE C	11

SECTION-1. DETAILED SCOPE OF WORK: PACKAGE C

Package C covers Design, engineering, manufacturing, testing before dispatch, packaging, supply, transportation, storage, preservation, shifting, erection, testing and commissioning of 1 (one) no. Surface Feeder (capacity 1,000 TPH) for contingency/temporary feeding of lignite to the Phase-I system during the construction period of Package A. Dismantling and shifting to designated location in safe manner for reinstallation and reuse as directed by GIPCL officials after commissioning of Package A.

NOTE:

- 1. Package C is critical from a timeline perspective. Its commissioning (Scheduled Commissioning Date: 8 months from Effective Date LOI) must precede commencement of Package D Part-1 dismantling works (removal of existing Feeder Breaker, BCN-M1A Yard Conveyor, and Stacker-cum-Reclaimer).**
- 2. After package-C work, package-D (Part-1) is critical for GIPCL to give clear space to other contractor for new power project work and accordingly, contractor to give priority for package-C as well as package-D**

1.1 Detailed Scope

- a) It is the responsibility of the contractor to visit the site to understand the nature of works & scopes involved and take required measurements.
- b) Design, engineering, manufacturing, testing before dispatch, packaging, supply, transportation, storage, preservation, shifting, erection, testing and commissioning of 1 (one) no. Surface Feeder, 1,000 TPH capacity, pan/apron type or as per OEM design suitable for Truck/Wheel Loader/ Dozer feeding.
- c) The equipment should be portable and can be shifted from one location to another without need of carrying out any major works or any major resources.
- d) Main motto of the system is to reclaim the stack coal and maintain bunker level as per requirement. Hence, availability of Portable Re-claim Feeder should be more than 95% at any instance. Contractor should design the Portable Re-claim Feeder such that it is possible to operate and maintain the Portable Re-claim Feeder with 95% availability rate at any instance during the life of the machine/s.
- e) Any modification/s OR alteration/s in/to the existing system which are essentially required to be carried out for safety of the system/s OR successful execution of the subject work has to be carried out by the

contractor, along with supply of all required material and resources, at its own costs and risks but, only with prior written approval from GIPCL required.

- f) All necessary protections (electrical, mechanical, civil, C&I etc.) essential and/or required for safety of the Portable Re-claim Feeder and the structures, auxiliaries, men, machine etc. in its vicinity are have to be provided by the contractor, along with supply of all required material and resources, at its own costs and risks.
- g) All other mechanical, electrical, civil etc. works required to be carried out for successful execution of the subject work, along with supply of all required material and resources, will have to be done by the contractor at its own costs and risks.
- h) It is the responsibility of the contractor to take proper care while working such that there should not be any kind of injuries / damages occur while working to the men, machine/s and tool/s in use or nearby.
- i) Before installation of the system, area/soil shall be compacted very well and foundation shall be prepared as per drawing of the machine. Surrounding area shall be developed (as per civil section) like RCC paving etc for proper and smooth movement of the dozer, payloador etc.
- j) Structural integrity of the area/ structure, where the Portable Re-claim Feeder will be installed, should not be adversely affected. Structural integrity of the area / structure, where the Portable Re-claim Feeder will be Installed, before commencement of and after completion of the work should be carried out by the contractor at its own costs and risks.
- k) Arrangement of all resource/s (men, material, consumables, T&P, safety equipment, etc.) required for carrying out and successful completion of the subject work and its transportation to and from the site along with loading and unloading is under the scope of the contractor at its own costs and risks.
- l) Detailed unloading, storage and installation plan shall be submitted by contractor well in advance. Suitable capacity crane and shall be arranged by contractor for unloading of the machine and installation of the machine, even of the material is coming in parts etc.
- m) If the machine is coming in parts, then detailed assembly plan as per OEM shall be required along with unloading safety checks.
- n) Presence of OEM representative is mandatory during erection and commissioning of the system. GIPCL reserves the right to ask the contractor for presence of OEM representative at any point of time required.
- o) GIPCL will provide open space to store the required material/T&P/equipment's, however safety and the security of the material/T&P/equipment's/men/any resources of the contractor which are required to successful completion of the subject work is in the scope of



contractor at its own costs and risks. In case of any theft and/or damages, the costs will have to be borne by the contractor. Any claim in this regard will not be entertained by this office.

- p) It is the responsibility of the contractor to keep the site clear and clean, i.e. removal and transportation of scarp/material not required/stored material etc. to and fro from site to the location designated place, so that normal working of the system/LHS should not get hampered.
- q) In case of emergency, the contractor will also have to assist in any other works essential for smooth functioning of the system.
- r) Scope of work / supply mentioned in this contract is not exhaustive and any works/ supplies or details which are mentioned and/or not mentioned above but essential for successful completion of subject work are under the scope of the contractor at its own costs and risks.
- s) Contractor should note that being a continuously operational plant, the isolation permits required for successful execution of the subject work will be issued and / or cancelled by the owner with prior intimation to your in-charge available at site. Contractor has to take and follow the work permit system on day to day basis for any work which require interfacing with existing system irrespective of discipline. It is the responsibility of the contractor to take proper care regarding this while designing and preparing its work schedule/s at its own costs and risks. Any claim in this regard will not be entertained.
- t) The surface feeder operates with Truck/Wheel Loader/Dozer feeding – no heavy ramp or hopper structure required.
- u) System shall have plan water dust suppression system arrangement with spray bars and nozzles. The system shall be with automatic lubrication system should also be provided by the manufacturer along with provision of manual greasing to tail sprocket bearings, head sprocket bearings and other relevant locations. System shall be equipped with plain water dust suppression system having spray bars, by extending/tapping the nearby waterline.
- v) The equipment should be portable and can be shifted from one location to another without need of carrying out any major works or any major resources.
- w) All structural support steelwork for the surface feeder: foundation anchor frame, supports, access platform, handrails.
- x) Cleaner at discharge end.
- y) Guards, covers, lighting and safety provisions.
- z) Fill of all lubricants, oils, and greases and stabilization of the machine operation.



- aa) It is to be considered (preferably) that machine should reach to designated location in assembled condition.
- bb) If case of machine is in de-assemble condition, shifting of the parts to designated location, assembly of the machine to be ensured and in contractors' scope only.

1.2 Electrical Scope (Refer electrical section for details)

- a) Machine shall be supplied with portable AC container with VFD for surface feeder drive along with other switch gears in Contractor's scope.
- b) Procurement of the required cable, laying of the cabling, from GIPCL's tapping point (New PCH MCC) to surface feeder VFD/MCC location. The total distance from MCC to surface feeder location will be approx. 1700-1800 Meters. Bidder shall have to verify the same.
- c) Earthing and bonding for surface feeder structure and all electrical equipment.
- d) Emergency stop push button and local control station for the surface feeder.

1.3 C&I Scope

- a) Bidder shall have to install I/O rack panel in Porta cabin MCC room.
- b) I/O rack consists of various Siemens PLC modules, power supply module, etc. and shall be provided to bidder by GIPCL.
- c) Bidder shall provide electronic earthing to PLC I/O rack and panel.
- d) Bidder shall install all field instruments for temporary feeding arrangement and cable laying, glanding, termination, in field as well as in I/O panel.
- e) Bidder shall have to re-route existing communication cable (FO / Profibus) from existing Mines MCC to temporary I/O rack panel.
- f) Power supply cable from Temporary MCC panel to PLC I/O rack panel shall be provided by Bidder.
- g) I/O rack commissioning shall be in the scope of GIPCL.
- h) Field instrument cable, cable tray, cable gland, all hardware shall be in the scope of bidder.
- i) Bidder shall provide Local PB station and inter connection with PLC for Local operation of surface feeder.

1.4 Civil Scope

- a) Concrete foundation for surface feeder (no heavy ramp); designed for surface feeder static loads and machine dynamic loads.
- b) Hardstand area/RCC paving for dozer/front-end loader operation around the surface feeder.

1.5 Balance of Plant

Temporary works (fencing, lighting, signage) around surface feeder installation area during construction and operation.

1.6 Decommissioning / Redeployment

- a) After commissioning of Package, A, the surface feeder shall be decommissioned and may be redeployed at another suitable location as directed by GIPCL.
- b) All the resources required during re-deployment of the machine will be in contractor's scope.
- c) OEM to confirm redeploy ability at time of order. Contractor to plan installation such that dismantling and redeployment is possible without damage.

SECTION-2. SYSTEM DESCRIPTION

2.1 Operating Concept

- a) Dozer or front-end loader pushes lignite into the open feed end of the surface feeder.
- b) The surface feeder (with metallic chain link pan/flight bar/apron type, VFD-driven), transfers lignite at controlled rate to the existing Phase-I conveyor system.
- c) The interface / connection point with the existing Phase-I system to be finalized during detailed engineering.
- d) Operation is to controlled from the existing Phase-I LHS Control Room (integrated with plant PLC/SCADA) or from local control station with interlock.

2.2 Key Project Milestone

Package C SCD (Scheduled Commissioning Date) is 8 months from Effective Date. This milestone is critical because:

- a) Package D Part-1 (removal of existing Feeder Breaker and BCN-M1A Yard Conveyor) can only commence after Package C is commissioned and fully operational, ensuring continuity of lignite supply to Phase-I boilers.
- b) Delay in Package C commissioning will directly delay Package D Part-1.

SECTION-3. TECHNICAL SPECIFICATIONS — MECHANICAL

Surface Feeder — Technical Data Sheet

Parameter	Specification / Requirement
Quantity	1 No.
Type	Surface Feeder (metallic chain link pan/flight bar/apron type or as per OEM design suitable for dozer/ front-end loader feeding) Its named as reclaim feeder / Buffalo feeder etc
Rated Capacity	1,000 TPH (minimum)
Design Capacity	1,200 TPH (120% of rated)
Feed Material	Lignite; Lignite / imported coal; ROM Lump size 1000 mm to 1200 mm (nominal) with stones size upto 1000 mm
Feed Method	Dozer / front-end loader (no ramp; no heavy hopper structure)
Drive Type	VFD-controlled motor; speed adjustable for flow rate control (5% onwards i.e. from 50TPH onwards)
C&I	Speed switch; pull-cord; emergency stop; basic interlock with downstream conveyor; local control station
PG Test	Throughput: minimum 1,000 TPH demonstrated; 24-hour trial operation
Re-deploy ability	OEM to confirm ability to relocate and reinstall after Package A commissioning
Paint / Finish	As per specification
Noise Level	≤ 85 dB(A) at 1 m under rated load

3.1 Structural Steel — Support Frame and Platform

- c) Surface feeder support frame: IS:2062 E250A / E350 structural steel or as per OEM; designed for machine loads + dozer lateral thrust loads.
- d) Access platform: Galvanized grating or checkered plate; handrails as per Package A specs.
- e) All structural steel painting: As per structural section's painting specification



SECTION-4. ELECTRICAL TECHNICAL SPECIFICATIONS

Refer electrical section

SECTION-5. CIVIL AND STRUCTURAL SPECIFICATIONS

Refer civil section

SECTION-6. DATA SHEET TO BE FILLED BY BIDDER

Sr.	Parameter	GIPCL Requirement	Bidder's to be filled
1	Surface Feeder OEM Make	As per vendor list make	<i>(To be filled by Bidder)</i>
3	Rated Capacity (TPH)	1,000 TPH minimum	<i>(To be filled by Bidder)</i>
4	Design Capacity (TPH)	1,200 TPH (120%)	<i>(To be filled by Bidder)</i>
5	Pan / Apron Width (mm)	State value	<i>(To be filled by Bidder)</i>
6	Drive Motor Rating (kW)	State kW	<i>(To be filled by Bidder)</i>
7	VFD Make and Model	As per vendor list make	<i>(To be filled by Bidder)</i>
8	Weight of Surface Feeder (MT)	State value	<i>(To be filled by Bidder)</i>
9	Commissioning Timeline		<i>(To be filled by Bidder)</i>
10	Re-deployability (Yes/No)	Confirm: Yes / No / Conditions	<i>(To be filled by Bidder)</i>
11	Noise Level at 1 m (dB-A)	≤ 85 dB(A)	<i>(To be filled by Bidder)</i>



SECTION-7. FACTORY ACCEPTANCE TEST (FAT) — PACKAGE C

As per approved QAP

Indicative FAT is provided below. Bidder/OEM has to provided the detailed FAT for approval

Sr.	Test Activity	Acceptance Criterion /
1	Dimensional Check (pan width, length, frame)	
2	Material Certificates (main frame, pan/apron)	
3	No-load Trial Run (minimum 4 hours)	Smooth operation; all safety devices functional; no abnormal noise/vibration
4	VFD Speed Control Test	Full speed range; no hunting;
5	Pull-Cord Switch Test	Both sides; immediate stop on pull; manual reset required
6	Zero Speed Switch Test	Trips on belt stop; functional test
7	Paint DFT Check	As per specification
8	Weight Confirmation	Within $\pm 5\%$ of stated weight in data sheet

SECTION-8. QAP AND FIELD QUALITY PLAN — PACKAGE .

As per approved QAP

SECTION-9. Indicative QAP Is Provided Below. Bidder/OEM Has To Provided The Same For Approval.

Field Quality Plan —

Activity	Test / Check
Surface feeder alignment	Level check; anchor bolt check
VFD connection	Phase rotation; IR test of motor
Safety device functional test	Pull-cord; e-stop; speed switch

Activity	Test / Check
Cold trial run (dry – 2 hours)	Temperature; vibration; noise observation
Hot trial run (with lignite – 24 hours)	Throughput; all process parameters

SECTION-10. MANDATORY SPARE PARTS — PACKAGE C

As per approved plan

SECTION-11. Indicative LIST is provided below. Bidder/OEM has to provided the same for approval

Sr.	Item Description	Min. Qty.	Remarks
1	Surface Feeder —Pan /Flight bar)	20 no's	Minimum two years of reliable operation shall be considered by bidder in concurrence/recommendation of OEM shall be considered for the mandatory spares for chain/flight bar etc.
2	Surface Feeder — Drive chain	1 Set	
3	Fasteners	40 no's	
4	Chain Connector	10% of total qty or 10 no's whichever is higher	
5	Bearings with housing (Head end)	2 set	
6	Bearings with housing (Tail end)	2 set	

SECTION-12. APPROVED MAKES — PACKAGE C

As per MECHANICAL vendor list

SECTION-13. PERFORMANCE GUARANTEE TEST — PACKAGE C

PG Test for Package C shall be conducted for a minimum continuous period of 24 hours under rated operating conditions, with dozer/front-end loader feeding of lignite.



Surface Feeder (Reclaim Feeder) – Guaranteed Parameters

S.No.	Guaranteed Parameter	Guaranteed Value	Measurement Method
1	Feed rate / throughput (TPH)	$\geq 100\%$ of rated TPH	Weigh feeder / belt weigher on downstream conveyor
2	Vibration – drive unit	≤ 4.5 mm/s	Vibration meter
3	Noise at 1 m	≤ 85 dB(A)	Calibrated sound meter