



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

VOLUME II — Package B – Associated Works

PACKAGE B
ASSOCIATED WORKS

(Weigh Bridge | Approach Road | IT network & RFID | Firefighting Extension |
Lighting)

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



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SECTION-1. DETAILED SCOPE OF WORK: PACKAGE B

Package B covers all associated infrastructure works required in connection with the new Lignite Feeding System (Package A). Package B shall be completed within 12 months from Effective Date.

Package-B shall be read in conjunction with package-A. Hence the plot plan and area development/design shall consider the package-A&B simultaneously. Package-B is associated work of package-A which shall meet all the requirement of the lignite feeding system like fleet movement from existing transportation route to stockpile with weighing, stockpile to dump hopper of existing system as well as new lignite feeding dump hopper, fleet tracking, Safe turning space and crossover arrangements of the fleets, returning of the fleets after dumping towards stockpile or exist to existing lignite transportation route. Hence considering above, the area shall be developed holistically with safe movement of the fleets, and smooth operation of the system in the area. The details provided below is based on experience and envisaged requirements. However, during detailing of the system, the quantity/size may change, hence contractor has to consider the following details indicative only.

Bidder shall consider the overall layout development of the plot plan of the system in AutoCAD- file comprising the package-A,B,C and existing LHS plot plan.

1.1 Sub-Package B1 — Weigh Bridge

(Refer to the Civil, Electrical and IT Sections for BOQ and Detailed Technical Specifications.)

The scope of work under this package shall include, but not be limited to, the following:

- Construction of 6 (Six) Nos. weighbridge foundations, complete with operator cabins and approach/departure ramps.
- Development of the weighbridge area with RCC paving on both sides of each weighbridge (entry and exit) for smooth vehicular movement.
- Supply, installation, testing and commissioning of 6 (Six) Nos. fully automatic electronic pit-less-type weighbridges of 80–100 MT Gross Vehicle Weight (GVW) capacity with digital compression load cell arrangement, comprising:
 - 2 (Two) Nos. weighbridges of 16 m × 3 m platform size; and
 - 4 (Four) Nos. weighbridges of 12 m × 3 m platform size.
- Provision of complete weighbridge systems including RCC pit/foundation, platform structure, digital load cells, junction boxes, digital weight indicator, printer, computer system, UPS, data management software, networking equipment, and all accessories required for complete operation.

- Provision of RFID loop interface at the entry and exit of each weighbridge for automatic vehicle identification and integration with the weighbridge management system.
- Execution of all associated civil works, including RCC pits/foundations, approach and departure ramps, RCC paving, storm water drainage, washrooms, toilets, rest sheds, drinking water facilities with water cooler, and all other ancillary infrastructure required for the weighbridge complex.
- Construction of pedestal foundations for high mast lighting, lighting poles, IT network equipment, POTA cabins, fire protection network, communication systems, CCTV systems, and all other associated utilities.
- Provision shall be made for the future installation of 1 (One) additional fully automatic electronic weighbridge of 16 m × 3 m platform size and 80–100 MT Gross Vehicle Weight (GVW) capacity. The scope shall include adequate space, RCC pit/foundation, approach and departure ramps, underground cable trenches/conduits, drainage, earthing, utility connections, and all associated civil, electrical, and IT infrastructure required to facilitate installation and commissioning of the weighbridge at a later stage without any major modification to the weighbridge complex
- Bidder shall note that total 7 no's of weigh bridge construction required as per above mentioned configuration.

1.2 Sub-Package B2 — Approach Road

(Refer civil for BOQ & detailed specification)

- Construction of new RCC approach road from existing lignite transportation route to stockpile area and exit road from dump hopper ramp to existing lignite transportation route
- Road to be designed for loaded truck axle loads. (considering upto 40MT payload capacity) total weight of the vehicle shall be 80-100MT)
- Extension of road from weigh bridge to existing stockpile road, Extension of existing stockpile road etc, considering area for truck movement.
- Development of the new culvert and development of the connecting road of the new culvert to existing stockpile road and new ramp etc.
- Restoration of all existing roads, pathways, and drainage systems disturbed during construction.
- Seamless interconnection of the all the approach of the stockpile, existing and new lignite feeding system ramp start point, round-off for crisscrossing of the fleets etc. Common area of package-A & B shall be consider holistically for smooth fleet movement on existing ramp as well as proposed ramp vide package-A.
- Any diversion/temporary/dismantling for the development of the system.
- All pedestal footing for high mast, lighting, IT work, Fire network etc.

1.3 Sub-Package B3 — IT network and Communication & RFID System

(Refer IT and electrical section for BOQ & detailed specification)

- LAN/network cabling extension from existing nearest plant area to new Electrical & C&I Building.
- Extension of the IT network from existing nearest plant area to weigh bridge area.
- Telephone points at weigh bridge and key Package B locations.
- CCTV cameras weighbridge area
- Supply and installation of RFID-based truck identification system at weigh bridge entry and exit lanes.
- Supply and installation of RFID-based truck identification system at stockpile entry and exit lanes.
- Data output: truck ID, entry/exit time, tare/gross/net weight, material type, integration with plant data system.
- All required computer hardware and accessories for weigh bridge interfacing shall be consider accordingly.

1.4 Sub-Package B4 — Firefighting System Extension

- Extension of existing plant fire hydrant network to cover weigh bridge, stockpile, extended stockpile and other required area.
- All dismantling /rerouting of the existing fire hydrant network for development of the package-B
- Consideration of the fire line size from 150-200NB GI pipe. Development of the footings for the laying of the Fireline above ground i.e. 2-3 ft.
- Total 1000 Meter Fireline extension is envisaged, however the same may vary based on actual Fireline extension.

1.5 Sub-Package B5 — Lighting and Electrical

(Refer electrical section for BOQ & detailed specification)

- Extension of LED lighting system for Package B areas: weigh bridge area, approach road, stockpile area including high mast at weigh bridge and extended stockpile.
- Power supply extension for Package B: cabling from nearest MCC/PCC to weigh bridge, RFID, and lighting panels.
- Transformer room, LDB (Local Distribution Board) for Package B electrical loads etc

SECTION-2. SYSTEM DESCRIPTION

2.1 Package B Overview

Package B provides all the supporting infrastructure for the new Lignite Feeding System. The weigh bridge records incoming truck weights for material accounting; RFID identifies trucks for automated data management; the approach road provides safe truck access; firefighting extension ensures fire safety compliance for the expanded plant area; and lighting/electrical/IT works ensure operational safety and connectivity.

2.2 Weigh Bridge System Description

The automatic electronic weigh bridge is installed at the entry to the stockpile/lignite storage area. All trucks delivering lignite to the stockpile/existing dump hopper at apron/new dump hopper etc are required to cross the weigh bridge for gross weight recording (on entry) and tare weight recording (on exit), enabling automated net material weight calculation. RFID readers at entry and exit lanes identify each truck automatically. RFID system shall also be installed at stockpiles also (refer IT section for details).

2.3 Approach road, culvert and lighting system

Considering the new lignite feeding system adjacent to existing lignite feeding system there will be significant increment in lignite transportation, storage and re-handling of the fuel in the area. Hence there shall be proper and safe approach roads to be considered along with other required infrastructure like culvert, round-off, lighting in area and in extended area also. The lighting connection from New PCH MCC, cabling and routing to be designed as per area plot plan.

2.4 Firefighting System — Extension

The existing plant fire hydrant network is provided considering the existing stockpile area . Looking to another feeding system near existing feeding system, the lignite stock will be more and hence stockpile area shall be extended. To cover the extended stockpile area, fire hydrant network shall be extended along dismantling /re-routing of the existing fire hydrant network. Approx. 600 Meter (Actual length may vary) of fire line may require to extend and re-routing/dismantling of the existing pipeline shall be based on final plot plan/layout of the system. Existing stockpile Fireline pipe dia is 150NB-200NB which is installed above the ground around 2 to 3 ft above the ground supported by structural bracket. Structure base is bolted with base plate of RCC footing.



SECTION-3. TECHNICAL SPECIFICATIONS, BOQ etc

(Refer IT and electrical section for BOQ & detailed specification)

SECTION-4. DATA SHEET TO BE FILLED BY BIDDER

Refer respective domain section, if any

SECTION-5. FACTORY ACCEPTANCE TEST (FAT)

As per approved plan

SECTION-6. QUALITY ASSURANCE PLAN (QAP) AND FIELD QUALITY PLAN

As per approved plan

SECTION-7. MANDATORY AND COMMISSIONING SPARE PARTS

Refer respective domain section, if any

SECTION-8. APPROVED MAKES

Refer respective domain section

SECTION-9. COMMISSIONING REQUIREMENTS — PACKAGE B

Package B shall be completed within 12 months from Effective Date. Commissioning activities shall be coordinated with Package A commissioning where interfaces exist. Tentative check list are given for commissioning of the system ,however bidder shall provide the detailed pre-commissioning and PG test parameters for approval.

9.1 Pre-Commissioning — Weigh Bridge

- Physical installation check: level of platform; approach/departure ramp levels; drainage check.
- Load cell wiring continuity; junction box seal; cable routing.
- Zero calibration (empty platform) and span calibration with certified test weights.
- Data management software installation; configuration; test transaction entry.
- RFID reader positioning; antenna alignment; signal strength check.

9.2 Pre-Commissioning — Firefighting Extension

- Pipe installation inspection: all supports, branch connections.
- Hydrostatic pressure test:; no leaks for 30 minutes.
- Flush all piping before final connection to existing network.
- Hydrant outlets: operation check (valve open/close);

9.3 Pre-Commissioning — Road and Site Works

- Final survey of road levels, camber, and gradients.
- Road marking application after final bituminous layer; sign boards installed.
- Culverts: inspection; drainage flow check; road surface over culverts smooth.
- All disturbed areas levelled; drainage channels clear and functional.

9.4 Performance Guarantee —

As per approved plan