

ETHEKWINI DISTRICT - INSTALLATION OF NEW GENERATOR SETS IN TWO CENTRAL LAUNDRIES

BILL OF QUANTITIES

PREAMBLE TO BILL OF QUANTITIES

Items and Pricing

The Department reserves the right to place an order for any quantities of items included in the Schedules. The Bill of Quantities must also not be assumed to include and describe every detail of the supply requirement, but must be taken and read in conjunction with the other parts of the document. Thus the supplier shall not have claim for further payment in respect of any order which may be described or implied in the contract, although apparently no corresponding items are given in the Bill of Quantities. The supplier shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the contract and of the rates and prices stated in the Bill of Quantities.

Tax and Duties

Prices, tendered and paid, must include all customs, excise and import duties, and any other tariffs or taxes levied by the government or statutory body having jurisdiction on the goods provided under this contract, **including Value Added Tax (applicable to the current rate)**.

Rates

Except where provision is made in the Bill of Quantities, the rates and prices inserted shall be the full rates and prices for the service delivered described under the respective items and shall cover all labour, transport, overhead charges and profit, etc. as well as the general liabilities, obligations and risks arising out of the Conditions of Contract, the overhead charges and profit being spread proportionately over the rates of the relative items in the Bill of Quantities.

PART 5 - SCHEDULE OF PRICES

Department of Health
 Effective Date: November 2018
 Version: 4

ETHEKWINI DISTRICT - INSTALLATION OF NEW GENERATOR SETS IN TWO CENTRAL LAUNDRIES					
C2 .3 BILLS OF QUANTITIES					
The Quantities measured in the Bill are PROVISIONAL and are subject to remeasurement at completion of the works.					
ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL
SUPPLY DELIVER INSTALL & COMMISSION					
CATO MANOR REGIONAL LAUNDRY					
2.3.1	Supply and deliver to site a 630 kVA 400/230-volt outdoor canopy type generator set, including Deep Sea 7320 generator controller as specified. Including 2500L self-bunded Base tank. Canopy, Base tank & frame constructed with 3CR12.	1	Each		
2.3.2	Supply and deliver, DSE WebNet DSE890 Gateway complete with a 1 x GPS antenna and 1 x GSM antenna installed in the 630kVA generator set, complete with a data SIM card.	1	Each		
2.3.3	Installation and commissioning of a 630 kVA 400/230-volt outdoor canopy type generator set, including Deep Sea 7320 generator controller as specified. Including 2500L Self-bunded Base tank.	1	Each		
2.3.4	Install and commission DSE WebNet DSE890 Gateway complete with a 1 x GPS antenna and 1 x GSM antenna installed in generator set, complete with a data SIM card.	1	Each		
2.3.5	Supply deliver and install suitable sound proofing within the generator canopy; Sound attenuated to <70dB. The canopies manufactured and supplied to the laundries shall be weatherproof and not tropical. Which ensures there is no water/moisture ingress into the interior compartment of the genset from weatherside louvres.	1	Item		
2.3.6	Installation and registration of SIM card. To be loaded with adequate data for this reporting module for the entire duration of the Two Years (24 months)	1	Item		
CABLE WORKS					
2.3.7	Supply and delivery of new suitably rated cables (for the generator rated at 630kVA) between the generator and the local LV panel situated in the switchroom. Cables must be able to withstand no less than 900A/phase. *The quantity shown in this BoQ refers to the distance of the cable route and NOT the length of cable required for the installation. Cable design and selection design must be included in engineers design report.	70	m		
2.3.8	Installation and commissioning of new suitably rated cables (for the generator rated at 630kVA) between the generator and the local LV panel situated in the switchroom. Cables must be able to withstand no less than 900A/phase. *The quantity shown in this BoQ refers to the distance of the cable route and NOT the length of cable required for the installation.	70	m		
2.3.9	Supply, deliver and install all terminations of newly installed cables using C.C.G or Pratley Glands and shrouds. All terminations shall be done with the use of hydraulic crimping tools only.	16	Each		
2.3.10	Supply, deliver, install and commission suitably rated earth mat/spike. Earth mat/spikes design must be included in engineers design report.	1	Item		
Carry over to Price Page - PS 1			R		

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL
SUPPLY DELIVER INSTALL & COMMISSION					
CATO MANOR REGIONAL LAUNDRY					
EARTHWORK & CIVIL					
2.3.11	Provision for Trenching for cable works and fuel piping: - in soft rock - including cable marking tape, - concrete cable markers, - backfilling and compaction - reinstate all surfaces as per original design <i>*Trenching would not exceed 1m deep and 1m wide with a distance not exceeding 60 m.</i>	60	m3		
2.3.12	Supply, delivery and installation of overhead and wall mounted heavy duty cable tray including all fixtures and fittings between the generator and LV panel. This includes the entire cable route: - Cable sleeves for underground installation - Cable route with galvanised trays/ladders, - Suitable busbar trunking within transformer and meter room, - Breaking of walls/penetrations from genset to the LV Panel - Reinstate brickwork in areas where there are cable penetrations with pyro fireseal. <i>*This includes reinstating of all brickwork present cable route and penetrations to have suitably rated fireseals</i>	70	m		
2.3.13	Supply and install new cable labelling in accordance with the SANS 10142-1 Wiring Code as well as the KZN D.o.H Policy document.	1	Item		
2.3.14	Construct and install a new reinforced concrete base of suitable strength on top of which the generating set and diesel bulk tank will be located in a position to be discussed at site briefing. Tentatively to be installed at the corner of the parking lot. (Including bulk earthworks, excavation, compaction, levelling and rubble removal ie. carting away of all unwanted material. Item includes all earthworks and all civil works associated with plinth installation. Minimum Comprehensive strength of Concrete 30MPa.	80	m2		
2.3.15	Remove existing Transformer and Meter Room Doors. Supply deliver and install Meter Room & Transformer Doors with accompanying locks and keys (3 sets).		Item		
DIESEL TANKS & PIPEWORK					
2.3.16	Supply, deliver, install and commission ISO 9001 quality containerised double walled (self-bunded) 8 000 litre bulk fuel tank including all associated pipework, fittings and consumables. Bulk tank to include fuel gauge linked to DSE controller.	1	Each		
2.3.17	Provision for specialized petrochemical installation Contractor in accordance with SABS 0131 Part 2/1979 and SABS 089 Part 3/1991.	1	Item		
2.3.18	Service, inspection and pressure testing of Bulk Feed tank	1	Each		
2.3.19	Supply and deliver first fill of 50ppm Diesel to bulk tank and day tank for commissioning.	10500	L - litres		
Carry over to Price Page - PS 2			R		

ETHEKWINI DISTRICT - INSTALLATION OF NEW GENERATOR SETS IN TWO CENTRAL LAUNDRIES

C2 .3 BILLS OF QUANTITIES

The Quantities measured in the Bill are PROVISIONAL and are subject to remeasurement at completion of the works.

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL
GENERAL					
2.3.20	Provision for Electrical compliance certificate	1	Each		
2.3.21	Supply, delivery, installation and commissioning of fire protection system including: - Fire Suppression equipment - Fire detectors linked to existing Fire detection and alarm panel (100m away) - Fire Certificate of Compliance	1	Each		
2.3.22	O & M manuals – 3 sets per unit.	1	Each		
2.3.23	Submission of as built drawings: standby plant arrangement and complete electrical system. Displayed and mounted within canopy compartment/door.	1	Each		
	Servicing of 630kVA diesel generator & Fuel Remediation of bulk and Day tanks during the 12 month guarantee period.				
2.3.24	CMRL - 6 month Minor service & fuel remediation	1	Each		
2.3.25	CMRL - 12 month Major service & fuel remediation	1	Each		
2.3.26	Provision for Professional Services - Electrical Engineers Design: -Submission of Engineers Design Report for KZN DOH approval -Submission of Single Line Diagram for KZN DOH approval	1	Item		
2.3.27	Supply and delivery of type HA1 padlocks with keys.	4	Each		
2.3.28	Supply and install new labelling for electrical equipment in accordance with the DoH Policy document.	1	Item		
2.3.29	Supply, deliver and Install ABS Certified Aluzinc Galvanized fencing for Coastal applications around generator and bulk fuel tank. Fence installation must be all inclusive of a fully installed fencing system including but not limited to posts, foundations, topping, anti-burrow and gate with 2 sets of locks and 4 keys. Fence should reach the height of the carport and form a full enclosure. Quantity is the perimeter of the fence.	30	m		
2.3.30	Supply, delivery and Installation of Chromadeck carport/shadeport to be installed over the concrete plinth area with 300mm overhang. Installation to include all necessary components: gutters, support structure, lighting etc.	90	m2		
2.3.31	Installation of Breaker panel: Supply, deliver and install suitably rated circuit breakers (2 off) and suitably rated panel (1 off) for cable protection to be installed within main incomer plant room and installed in accordance with SANS standards (SANS 10142 I&II)	1	Item		
Carry over to Price Page - PS 3			R		

ETHEKWINI DISTRICT - INSTALLATION OF NEW GENERATOR SETS IN TWO CENTRAL LAUNDRIES					
ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL
SUPPLY DELIVER INSTALL & COMMISSION					
KZN CENTRAL PROVINCIAL LAUNDRY					
2.3.32	Supply and deliver to site a 630 kVA 400/230-volt outdoor canopy type generator set, including Deep Sea 7320 generator controller as specified. Including 2500L self-bunded Base tank. Canopy, Base tank & frame constructed with 3CR12.	1	Each		
2.3.33	Supply and deliver, DSE WebNet DSE890 Gateway complete with a 1 x GPS antenna and 1 x GSM antenna installed in the 630kVA generator set, complete with a data SIM card.	1	Each		
2.3.34	Installation and commissioning of a 630 kVA 400/230-volt outdoor canopy type generator set, including Deep Sea 7320 generator controller as specified. Including 2500L Self-bunded Base tank.	1	Each		
2.3.35	Install and commission DSE WebNet DSE890 Gateway complete with a 1 x GPS antenna and 1 x GSM antenna installed in generator set, complete with a data SIM card.	1	Each		
2.3.36	Supply deliver and install suitable sound proofing within the generator canopy; Sound attenuated to <70dB. The canopies manufactured and supplied to the laundries shall be weatherproof and not tropical. Which ensures there is no water/moisture ingress into the interior compartment of the genset from weatherside louvres.	1	Item		
2.3.37	Installation and registration of SIM card. To be loaded with adequate data for this reporting module for the entire duration of the Two Years (24 months)	1	Each		
CABLE WORKS					
2.3.38	Supply and delivery of new suitably rated cables (for the generator rated at 630kVA) between the generator and the local LV panel situated in the switchroom. Cables must be able to withstand no less than 900A/phase. <i>*The quantity shown in this BoQ refers to the distance of the cable route and NOT the length of cable required for the installation. Cable design and selection design must be included in enaigners design report.</i>	40	m		
2.3.39	Installation and commissioning of new suitably rated cables (for the generator rated at 630kVA)between the generator and the local LV panel situated in the switchroom. Cables must be able to withstand no less than 900A/phase. <i>*The quantity shown in this BoQ refers to the distance of the cable route and NOT the length of cable required for the installation.</i>	40	m		
2.3.40	Supply, deliver and install all terminations of newly installed cables using C.C.G or Pratley Glands and shrouds. All terminations shall be done with the use of hydraulic crimping tools only.	16	Each		
2.3.41	Supply, deliver, install and commission suitably rated earth mat/spike. Earth mat/spikes design must be included in engineers design report.	1	Item		
Carry over to Price Page - PS 4			R		

ETHEKWINI DISTRICT - INSTALLATION OF NEW GENERATOR SETS IN TWO CENTRAL LAUNDRIES

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL
SUPPLY DELIVER INSTALL & COMMISSION					
KZN CENTRAL PROVINCIAL LAUNDRY					
EARTHWORK & CIVIL					
2.3.42	Provision for Trenching for cable works and fuel piping: - in soft rock - including cable marking tape, - concrete cable markers, - backfilling and compaction - reinstate all surfaces as per original design <i>*Trenching would not exceed 1m deep and 1m wide with a distance not exceeding 40 m.</i>	40	m3		
2.3.43	Supply, delivery and installation of overhead and wall mounted heavy duty cable tray/ladder including all fixtures and fittings between the generator and LV panel. This includes the entire cable route: - Cable sleeves for underground installation - Cable route with galvanised trays/ladders, - Suitable busbar trunking within transformer and meter room, - Breaking of walls/penetrations from genset to the LV Panel - Reinstate brickwork in areas where there are cable penetrations with pyro fireseal. <i>*This includes reinstating of all brickwork present cable route and penetrations to have suitably rated fireseals</i>	20	m		
2.3.44	Supply and install new cable labelling in accordance with the SANS 10142-1 Wiring Code as well as the KZN D.o.H Policy Specification document.	1	Item		
2.3.45	Construct and install a new reinforced concrete base of suitable strength on top of which the generating set and diesel bulk tank will be located in a position to be discussed at site briefing. Tentatively to be installed at the corner of the parking lot. (Including bulk earthworks, tree removal, excavation, compaction, levelling and rubble removal ie. carting away of all unwanted material. Item includes all earthworks and all civil works associated with plinth installation. Minimum Comprehensive strength of Concrete 30MPa.	80	m2		
DIESEL TANKS & PIPEWORK					
2.3.46	Supply, deliver, install and commission ISO 9001 quality containerised double walled (self-bunded) 8 000 litre bulk fuel tank including all associated pipework, fittings and consumables.	1	Each		
2.3.47	Provision for specialized petrochemical installation Contractor in accordance with SABS 0131 Part 2/1979 and SABS 089 Part 3/1991.		Item		
2.3.48	Service, inspection and pressure testing of Bulk Feed tank	1	Each		
2.3.49	Supply and deliver first fill of 50ppm Diesel to bulk tank and day tank for commissioning.	10500	L - litres		
Carry over to Price Page - PS 5			R		

ETHEKWINI DISTRICT - INSTALLATION OF NEW GENERATOR SETS IN TWO CENTRAL LAUNDRIES

C2 .3 BILLS OF QUANTITIES

The Quantities measured in the Bill are PROVISIONAL and are subject to remeasurement at completion of the works.

ITEM	DESCRIPTION	QTY	UNIT	RATE	TOTAL
GENERAL					
2.3.50	Provision for Electrical compliance certificate	1	Each		
2.3.51	Supply, delivery, installation and commissioning of fire protection system including: - Fire Suppression equipment - Fire detectors linked to existing Fire detection and alarm panel (200m away) - Fire Certificate of Compliance	1	Each		
2.3.52	O & M manuals – 3 sets per unit.	1	Each		
2.3.53	Submission of as built drawings: standby plant arrangement and complete electrical system. Displayed and mounted within canopy compartment/door.	2	Each		
	Servicing of 630kVA diesel generator & Fuel Remediation of bulk and Day tanks during the 12 month guarantee period.				
2.3.54	KZNCL - 6 month Minor service & fuel remediation	1	Each		
2.3.55	KZNCL - 12 month Major service & fuel remediation	1	Each		
2.3.56	Provision for Professional Services - Electrical Engineers Design: -Submission of Engineers Design Report for KZN DOH approval -Submission of Single Line Diagram for KZN DOH approval	1	Item		
2.3.57	Supply and delivery of type HA1 padlocks with keys.	4	Each		
2.3.58	Supply, deliver and Install ABS Certified Aluzinc Galvanized fencing for Coastal applications around generator and bulk fuel tank. Fence installation must be all inclusive of a fully installed fencing system including but not limited to posts, foundations, topping, anti-burrow and gate with 2 sets of locks and 4 keys.	70	m		
2.3.59	Supply and install new labelling for electrical equipment in accordance with the DoH Policy document. This includes respraying/replacing of existing panels to indicate essential supply.	1	Item		
2.3.60	Decommission and remove from site to Wentworth Hospital: existing 315kVA generator. Rewire existing essential/non-essential panel to convert to ESSENTIAL SUPPLY. Including respraying of existing panel to suit ESSENTIAL SUPPLY panel colour with corrected labelling and componenet upgrade if necessary.	1	Item		
2.3.61	Decommission existing bulk fuel tank.	1	Item		
2.3.62	Supply, delivery and Installation of Chromadeck carport/shadeport to be installed over the concrete plinth area with 300mm overhang. Installation to include all necessary components: gutters, support structure, lighting etc.	90	m2		
2.3.63	Installation of Breaker panel: Supply, deliver and install suitably rated circuit breakers (2 off) and suitably rated panel (1 off) for cable protection to be installed within main incomer plant room and installed in accordance with SANS standards (SANS 10142 I&II)	1	Item		
Carry over to Price Page - PS 6			R		

ETHEKWINI DISTRICT - INSTALLATION OF NEW GENERATOR SETS IN TWO CENTRAL LAUNDRIES

PRICE PAGE

N.B.: This form must be completed in detail signed by the Bidder and bears the signature of a witness.

Failure to comply with these requirements may result in the bid being disregarded.

CLOSING DATE AND TIME: _6 Feb 2023_ at 11:00. VALIDITY PERIOD: 84 DAYS

BID/CONTRACT NO: ZNB <u> 5026/2022-H </u> PERIOD: <u> </u>	
ETHEKWINI DISTRICT - INSTALLATION OF NEW GENERATOR SETS IN TWO CENTRAL LAUNDRIES	NAME AND ADDRESS OF BIDDER(FIRM) TEL: FAX:
CARRIED OVER FROM SCHEDULE OF PRICES PS 1	-
PS 2	-
PS 3	-
PS 4	-
PS 5	-
PS 6	-
P&Gs	-
Subtotal : PS 1 to PS 6	-
VALUE ADDED TAX @ 15% (Rate applicable on date of submission of Bidder)	-
TOTAL BID PRICE	-
 (Signature of Bidder) DATE: (Signature of Witness) DATE: