

**SUPPLY & INSTALLATION
of the
GENERATOR SERVICES
for the
LTA KARAVI WEIGHBRIDGE STATION
at
KARAVI, BA, FIJI ISLANDS**

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DATED: JUNE 2019
PROJECT NO: 7835

**ELECTRICAL SERVICES
LTA KARAVI WEIGHBRIDGE STATION
KARAVI, BA, FIJI ISLANDS**

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SECTION 1 GENERAL CONDITIONS OF CONTRACT

General Conditions of Contract shall be the Conditions of Contract for LTA KARAVI WEIGHBRIDGE STATION at KARAVI, BA, FIJI ISLANDS and any other Amendments and Revisions up to date of issue, provided by the Principal Consultant – Irwin Alsop Pacific Ltd.

SECTION 2 SPECIAL CONDITIONS OF CONTRACT

Special Conditions of Contract shall be the Conditions of Contract for LTA KARAVI WEIGHBRIDGE STATION at KARAVI, BA, FIJI ISLANDS and any other Amendments and Revisions up to date of issue, provided by the Principal Consultant – Irwin Alsop Pacific Ltd

SECTION 3 PRELIMINARY AND GENERAL

Conditions of Contract shall be the Conditions of Contract for LTA KARAVI WEIGHBRIDGE STATION at KARAVI, BA, FIJI ISLANDS and any other Amendments and Revisions up to date of issue, provided by the Principal Consultant – Irwin Alsop Pacific Ltd

SECTION 4 GENERAL

4.1 SCOPE OF WORK

The scope of works comprises the supply, installation, testing, commissioning, maintenance and defects liability service of a standby (prime rated) diesel generator for LTA KARAVI WEIGHBRIDGE STATION KARAVI, BA, FIJI ISLANDS.

This shall include all necessary work required to implement the intent and meaning of this Specification and associated drawings.

Whether or not the words “supply and install” appear in this Specification or on the drawings, unless clearly excluded, all items of equipment for the complete installation are required and shall be supplied and installed.

Extent of Work

The work shall include but will not be limited to the following main items:-

- a) Supply and installation of a 60kVA standby diesel generator complete with weatherproof acoustic surround and full tank.
- b) Supply and installation of an Automatic Transfer Switch.

Additional Work

Provisions of the following additional services:

- a) Coordination with EFL.
- b) As Installed drawings and Installation Manuals.
- c) Testing, commissioning, warranty and preventive maintenance of the standby diesel generator

4.2 COMPLIANCE WITH REGULATIONS

The work carried out by the Electrical Sub-Contractor shall comply in all respects with this Specification and :

- a) The Building Regulations applying to the project.
- b) AS/NZS3000:2007 and relevant Australian Standards
- c) Energy Fiji Limited
- d) Ministry of Labour OHS Regulations
- e) Any other regulations that apply directly or indirectly to such installations in the location

4.3 DRAWINGS

The scope of work is shown on the Architectural and Electrical Services drawings which should be read in conjunction with this Specification. Refer to the Architectural, Structural and Hydraulics drawings for the exact positions of fixtures, fittings, plant equipment, sundry appliances and structural elements. Confirm dimensions on site before commencing work.

The following drawings shall form part of the Contract:

E01	SCHEDULE OF DRAWINGS, LEGEND, GENERAL NOTES, ABBREVIATIONS & LOCALITY PLAN
E03	PROPOSED SITE PLAN LIGHTING & POWER RETICULATION LAYOUTS
E06	SECURITY BOOTH / WAITING BURE / GENERATOR ROOM / SIDE ELEVATION LIGHTING & POWER LAYOUTS
E07	MAIN SINGLE LINE DIAGRAM & SCHEDULE OF CABLING

4.4 APPROVAL CERTIFICATION

Lodgements: Where the regulations provide for the issue of approval certificates, lodge the certificates

with the Engineer as follows :

- Energy Fiji Limited notices of commencement and completion
- Department of Environment approval

4.5 AUTHORITIES

Make application to the relevant Authorities for permits to carry out the works and pay all fees and charges in respect of the works.

SECTION 5 STAND-BY DIESEL GENERATOR

5.1 SCOPE OF WORK

Supply and install an exterior diesel driven 60 kVA 415V 50Hz (prime rating) standby generator to provide standby power supply in the event of an Energy Fiji Limited supply failure.

The installation shall include the commissioning, testing and subsequent maintenance of the generator and its associated equipment for the period in accordance with the Contract Conditions.

5.2 GENERAL REQUIREMENTS

Supply, deliver, install, test and commission the industrial diesel engine direct coupled to the alternators and mounted on a common base frame and complete with all accessories. The generator set shall be installed where shown on the drawings. The generator set shall comprise the following main items:

- a. Weather protected sound attenuated enclosure
- b. Fuel oil system
- c. Engine cooling system
- d. Exhaust piping and silencers
- e. Test and alarm facilities
- f. All electrical and/or mechanical control and switchgear equipment complete with wiring and all other work and equipment necessary to ensure the safe and efficient operation of the generating set
- g. Operation and Maintenance Manuals

5.3 ENVIRONMENTAL CONDITIONS

The generator set shall conform to the requirements of this Specification under the following conditions:-

5.3.1 Temperature

At any ambient temperature from 15 deg. C to 50 deg. C.

5.3.2 Humidity

Any relative humidity that may occur as a result of the atmospheric conditions on site, within the range of ambient temperatures given in Clause 5.3.1 above.

5.3.3 Altitude

The sets shall operate at full capacity at sea level.

5.3.4 Existing Site Conditions

The site is subject to extremes of heat, humidity and corrosion because of its location in a tropical and coastal environment.

5.4 BASIC REQUIREMENTS

5.4.1 Standard Products

The diesel alternator set and associated component parts of the equipment shall be essentially the standard products of the manufacturer or his supplier, so that prompt and continuing service and

delivery of spare parts may be assured. The manufacturer shall be represented by a competent agency in Fiji to facilitate regular preventative inspection, maintenance and break-down service of the plant.

5.4.2 Materials and Workmanship

All materials and workmanship shall be of the best accepted standards for this class of equipment and shall be designed to give reliable service, subject to reasonable maintenance.

5.4.3 Mass and Size

Mass and size shall be kept to the minimum possible for this class of equipment.

5.4.4 Vibration

The diesel generator set shall operate with the minimum of vibration consistent with this class of equipment, and shall have low out-of-balance forces.

5.4.5 Noise

The diesel generator set shall operate with the minimum of audible noise for this class of equipment because of the close proximity to adjacent buildings.

Noise levels of the diesel generator set including the ventilation system, shall not exceed the limits set down in Australian Standard AS1359.

5.4.6 Resistance to Natural Conditions

All components, particularly those of electrical, fuel, lubrication and exhaust system shall be of corrosion resistant materials or alternatively painted to withstand conditions set out in this Specification.

5.4.7 Lifting Attachments

Eyes or other approved lifting means shall be provided on the diesel generator set.

5.4.8 Base Frame and Mountings

The generating sets including engine, alternator and auxiliaries shall be provided with a heavy duty fabricated galvanized steel base frame and shall be of substantial design, adequate mass and stiffness to resist engine torque and vibration without undue distortion.

5.4.9 Vibration Isolation

Prevent the transmission of vibration to the building. Mount the diesel generator set on approved anti-vibration mounts.

5.4.10 Drip Tray

A drip tray of 1.5 times the sump oil capacity shall be provided and shall be installed under the engine. It shall be possible to remove the drip tray with the set installed in position.

5.4.11 Spares

A kit of spares, sufficient to meet all normal requirements which may arise during 500 hours of running shall be supplied for the installation.

The spares shall be mounted in the lockable cabinet as provided for the tools.

5.4.12 Tools

A set of tools shall be supplied which shall be adequate to meet all normal routine maintenance. In particular, it shall include spanners to fit each size of nut on the set and any special tools that may be required for the dismantling of component parts. A lockable tool cabinet shall be provided. Final location of the cabinet shall be confirmed by the Client.

5.4.13 Painting

The generator sets shall be painted in accordance with the Supplier's standard requirements taking into account the environmental conditions.

5.5 ENGINE REQUIREMENTS

5.5.1 General

The engine shall be a diesel engine in accordance with Australian Standard AS 1359 and thoroughly reliable in the duties required.

The engine shall be capable of continuously driving an alternator having an output of the specified rating.

The engine shall be of the vertical type operating on the four stroke principle at 1,500 R.P.M.

5.5.2 Rating

The engine rating shall be de-rated to comply with the specified operating conditions, including all due allowances for engine driven auxiliaries.

5.5.3 Governing Controls

The engine shall be fitted with an approved type electronic governor.

5.5.4 Lubrication

The engine shall be equipped with a positive pressure system for lubrication to working parts.

There shall be no moving parts which require hand lubrication prior to starting the engine or whilst in operation.

Drain plug (s) shall be in accessible position (s) and extended by piping as necessary. The oil shall not be drained into the oil drip tray. The Contractor shall supply the first fill of lubricating oil.

5.5.5 Lubricating Oil Filters

Filters shall be of the full flow type and shall be capable of removing all foreign matter above a particle size of 10 microns.

Filters shall have replaceable elements.

5.5.6 Crank Case Breather

The crank case breathers shall be fitted with a fine filter in the cap to prevent entry of dust into the sump.

5.5.7 Air Filter

Engine air intake shall be fitted with an efficient dry cartridge type air filter capable of functioning for long periods between services.

Filters shall have replaceable elements

5.5.8 The Cooling System

The cooling system for the diesel engine shall consist of a water jacket circuit of the pressurised type.

The radiator shall be designed to suit the heat rejection loads of the engine running at full rated output, and with a 20% fouling factor on the radiator.

Cooling of the radiator shall be by means of an electric motor driven propeller fan of adequate air handling capacity for the duty at maximum engine output.

The radiator shall be complete with expansion tank and thermostatically controlled electric motor driven fan and fan guards and controls.

Provide low water level alarm indication on the generator control panel.

5.5.9 Fuel Tank

The diesel generator set shall be supplied with a base frame fuel tank with a capacity for approximately eight (8) hours running.

The tank shall be supplied complete with a contents indicator, fuel fill cap with breather, fuel feed and return lines to engine and drain plug.

5.6 ENGINE START AND PROTECTIVE EQUIPMENT

5.6.1 Engine Starting

The diesel generator set shall be on automatic start type with facilities for key starting.

5.6.2 Automatic Protective Equipment

The following protective equipment shall be provided

a) Overload

The generator set shall stop on alternator overload or output failure.

b) High Jacket Water Temperature

The engine shall stop if jacket water reaches a temperature which would be detrimental to the engine.

c) Low Lubricating Oil

The engines shall stop on failure of lubricating oil pressure.

d) Over speed

The engine shall shut down on occurrence of over speed.

5.7 ALTERNATOR

5.7.1 General

The alternator shall be of self-exciting self-regulating brushless design.

The alternator shall be direct coupled to the diesel engine and mounted on a common base frame.

5.7.2 Ratings

The alternator and exciter shall have a standard rating of not less than 0.8 PF lagging, three-phase, four wire 415/240 volt, 50Hz.

5.7.3 Automatic Voltage Regulator (AVR)

The AVR shall maintain the voltage within the limits of +/-1% from no load to full load including cold to hot variations at any power factor between 0.8 lagging and unity and inclusive of a speed variation of 5%.

5.7.4 Insulation System

The insulation system shall be Class H.

5.7.5 Terminal Box

Alternator output and control terminals shall be enclosed in terminal boxes of adequate size suitable for top or bottom cable entry mounted in an accessible position on the alternator frame and marked in accordance with Australian Standard AS 1359.

A sealed cover shall give access to the terminals.

5.8 WIRING

5.8.1 Scope

Supply and install the following wiring:

- i) Control and alarm wiring within the control panel
- ii) All earthing conductors associated with this installation

5.8.2 Standard

All wiring shall comply with the requirements of AS/NZS 3000:2018 and previous Sections of this Specification.

5.9 INSTRUCTION PLATE

A plate shall be provided adjacent to the control panel giving brief instruction how to start, stop and attend to set when operated manually.

5.10 GENERATOR SET CONTROL PANEL

A steel cubicle shall be provided to house all diesel engine control equipment, switching equipment and distribution equipment. The panel shall contain all equipment necessary for the fully automatic operation of the generator set.

The following indicators and control shall be incorporated for the generator set.

(I) Safety Devices

- Low lubricating oil pressure alarm shutdown and open circuit breaker
- High engine temperature alarm, shutdown and open circuit breaker
- Overspeed alarm, shutdown and open circuit breaker

(II) Gauges and Instruments

- Start pushbutton (located on engine)
- Engine oil pressure (located on engine)
- Engine water temperature (located on engine)
- Three ammeters - one per phase

- One voltmeter with phase selector switch
- Frequency meter
- Hours run meter
- Tachometer

5.11 TESTING

Supply the necessary test apparatus and materials, including fuel and lubrication supplies of the correct grades and carry out the specified tests on the complete generator set assembly including auxiliary systems and control panel

5.11.1 Workshop Testing

A combined test of the engine and alternator with such auxiliary equipment as may be deemed practicable shall be carried out in the presence of the Engineer.

5.11.2 Preliminary Trials

After completion of erection on site and before carrying out main trials, preliminary trials shall be conducted in the presence of the Engineer. Such trials shall include the checking and the adjustment of crankshaft alignment (when cold), the insulation resistance of stator, rotor and exciter windings, and the air gap between stator and rotor.

A check shall be made on effectiveness of radio suppressors, the satisfactory operation of the exciter, hand-operated field rheostat and automatic voltage regulator, also, the satisfactory operation of all auxiliary motors and their starting and switching gear. Preliminary trials shall also include a check on the satisfactory operation of control equipment and all auxiliaries supplied with the set.

5.11.3 Commissioning Tests

Test run the completed installation and demonstrate that the installation, including components and equipment, operates correctly and meets the performance requirements under normal running conditions.

During commissioning perform the following:

- Confirm operation and setting for each equipment item
- Repeat the functional checks on equipment
- Ensure that the phase rotation sequence is the same as the Energy Fiji Limited's connection.

Approval: Obtain approval before proceeding with commissioning tests.

Supply satisfactory evidence, in the form of certificates recording tests results, functional checks, calculations, and the like details showing that the generator set has met the test requirements.

5.12 OPERATIONAL MAINTENANCE

5.12.1 Maintenance Period

Co-extensive with the Defects Liability Period.

5.12.2 Requirement

During the maintenance period:

- Carry out monthly inspections and perform maintenance work at the frequencies and following the procedures recommended by the generator set manufacturer
- Maintain the generator set in a condition to meet the specified performance
- Provide and maintain an anti-corrosion additive in the cooling system where necessary
- Promptly rectify faults. Replace faulty materials and equipment without charge
- Complete log book entries recording these procedures

At the end of the maintenance period make a final service visit and upon satisfactory completion of

the above procedures certify in writing that the installation is operating correctly.

Coinciding with the routine inspection visits instruct the Employer’s operational maintenance staff in the recommended methods of maintenance and control of the system.

5.13 INSPECTIONS - GENERATING SETS

Arrange for and give sufficient notice so that the Engineer may witness the inspections, tests and the like. Three working days’ notice is required.

5.14 SHOP DRAWINGS

Provide manufacturer’s drawings of the proposed generator set assemblies.

Include the following information:

- Maximum overall dimensions of the generator set
- Maximum mass of the generator set
- Maximum mass of the generator set for transport
- Required access clearances around the generator set for operational maintenance and dismantling procedures
- Locations of terminals and fittings
- Details of the concrete plinths, site fixing, and other installation requirements
- Recommended layouts of the complete installation

NUMBER OF COPIES:.....THREE.3.....

5.15 AS INSTALLED DRAWINGS

Before the Date of Practical Completion, provide As Installed drawings of the complete generating set assembly as installed, showing the final layout of equipment and accessories, and the route and location of interconnecting piping, exhaust ducts, wiring and the like.

NUMBER OF COPIES:.....THREE.(3).....

5.16 MANUALS

Before commencement of operational instruction, provide the specified number of copies of a combined operator’s manual and technical manual written in clear concise English, containing a title page listing the supplier’s name, address and telephone number, a table of contents, and the following data:

Operator’s Manual:

- Information necessary for the satisfactory long-term operation and regular maintenance of the installation
- Recommended maintenance periods and procedures
- Particulars of maintenance tools provided and instructions for their use
- Detailed technical description of each component or equipment item and its function, with diagrams and illustrations where appropriate
- Where necessary, procedures for dismantling and re-assembling the diesel generator set and ancillary equipment
- List the spare parts provided
- The As Installed drawings

FORM: A4 size, printed or typed on durable printing paper, each page consecutively numbered, and neatly bound in durable vinyl or similar hard covers.

NUMBER OF COPIES:.....THREE (3).....

Prototype copy: Provide a prototype copy for approval before proceeding.

5.17 LOG BOOK

Provide a log book bound and presented generally as specified for manuals, with not less than 100 pages, or with sufficient pages to receive the entries for the maintenance period and for a further period of 12 months, whichever is the greater. Make typical entries recording the required procedures during the maintenance period.

Sample Page: Log book pages shall match the sample provided. Include in the log book the test, approval and completion certificates required by this Section.

SECTION 6 TESTING AND COMMISSIONING

6.1 GENERAL

The installation shall be tested to the satisfaction of the Engineer prior to the acceptance of the installation and the commencement of the Defects Liability Period.

The tests shall comprise a thorough inspection of the installation and the operational and performances tests.

The necessary skilled and competent personnel together with all equipment, fuel and electrical power required to test and commission the works shall be provided.

All testing and commissioning shall be carefully pre-planned and scheduled in order that it is fully coordinated with other relevant parties and shall be carried out in a safe and efficient manner with a minimum of inconvenience to all concerned.

The installation shall be tested progressively as the work is carried out then finally tested once it is completed to ensure compliance with the Specification, is mechanically and electrically safe and that it will operate correctly under normal, emergency and fault conditions. Control, protection and operative devices shall be checked for correct adjustment and rating.

All equipment or materials found to be faulty during testing shall either be replaced or repaired free of charge.

Should a trial or test be deemed unsatisfactory by the Engineer it shall be repeated at no further charge after necessary rectification, until such time as a satisfactory result is obtained.

6.2 COMMISSIONING

Carry out all commissioning tests necessary to put the system into commercial use and to approval before Practical Completion is granted. Each item of equipment individually and the complete system as a whole shall be checked and adjusted to achieve satisfactory performances.

Meter panels, links, and associated wiring to the Energy Fiji Limited's kilowatt hour meters shall be supplied and installed by the Electrical Sub-Contractor.

Arrange for the installation of the Energy Fiji Limited's meters, current transformers etc.

6.3 TESTS AND INSTALLATION INSTRUMENTS

All instruments, appliances and test loads shall be provided for the duration of the tests as necessary to complete the test procedures specified.

Gauges and instruments provided as permanent parts of the installation may be used during performance testing providing evidence is submitted of their calibration accuracy.

All instruments shall be checked and calibrated during commissioning and again after 3 months of normal operation. Any instrument which will not hold calibration shall be replaced.

6.4 TEST RESULTS

All test procedures used and results obtained for both works and site tests shall be submitted in the form of a written Test Report.

Records shall be kept of test results and two (2) copies shall be submitted to the Engineer at the completion of the work. Approval of the format required for the test results shall be obtained prior to the submission.

6.5 NOTICES

All tests required by the relevant Authorities shall be completed in accordance with directions given by them.

Copies of all approval notices including the Final Acceptance notice shall be submitted prior to the claim for final payment.

SECTION 7 MAINTENANCE AND SERVICING

7.1 MAINTENANCE

Routine maintenance and servicing shall be carried out for a period of 52 weeks from date of Practical Completion to the end of the Defects Liability Period.

The maintenance routines shall be designed to ensure proper operation of the equipment in accordance with manufacturer's requirements and good trade practice. The programme shall be to the instructions in the Contractor's maintenance manual for this project. The Contractor shall provide all miscellaneous materials required in carrying out the works. A copy of the monthly service sheets is to be posted to the Engineer within a week of the work.

Routine maintenance shall be carried out on a monthly basis and emergency service shall be carried out on a 24 hour call out basis.

Routine maintenance shall be deemed to be the regular maintenance of equipment and shall include not less than:-

- a) Checking and replacement of faulty equipment and accessories as required within the Defects Liability Period.
- b) Checking the operation, performing maintenance and setting and calibration of all control components.
- c) Maintaining a dated record of servicing performed on each system in a service log book record book to be retained under the Proprietor's control on site.

7.2 RECTIFICATION OF DEFECTS

All defects shall be promptly rectified. Retention moneys or Bank Guarantee will not be released until all outstanding defects notified during the Defects Liability Period have been rectified and completion of such work subsequently advised in writing to the approving authority.

APPENDICES

APPENDIX I TENDER FORM

NAME OF TENDERER: _____

**TENDER : STANDBY DIESEL GENERATOR
– LTA KARAVI WEIGHBRIDGE STATION
KARAVI, BA. FIJI ISLANDS**

1. We have read the conditions of Contract and having examined the drawings referred to therein do hereby offer to execute and complete in accordance with the conditions of Contract the whole works described for the sum of :

F\$..... inclusive of VAT within twelve (12) weeks from date of possession of site.

2. The Tender shall be open for consideration for a period of 60 days.

3. The Principal does not bind himself to accept the lowest or any tender. They do not undertake to incur themselves in any expenses in connection with the preparation of tenders.

4. The documents must not be altered in any way. Any special observations should be made in a separate letter attached to this Tender. All Tenderers must conform to the conditions of the Contract and Specification. Nonconformity will invalidate the Tender.

Any alternatives (e.g. for cost saving) suggested by Tenderers should be represented separately as a supplement to the Formal Tender.

5. A list of proposed sub-Contractors and the elements of the project they will execute is to be attached herewith.

6. The Tenderer shall state in brief terms, the method of installation he proposes to adopt together with an elementary programme bar chart.

7. The Tenderer’s priced Summary of Tender shall be submitted with the Form of Tender.

8. AS WITNESSED OUR HANDS

This day of 2019

SIGNATURE OF TENDERER.....

ADDRESS

.....

WITNESS

Signature.....

ADDRESS

OCCUPATION

APPENDIX II SUMMARY OF TENDER**PRINCIPAL** : LAND TRANSPORT AUTHORITY**SHEET 1 of 1 SHEET****PROJECT** : KARAVI WEIGHBRIDGE STATION
KARAVI, BA, FIJI**PROJECT NO:** 7835**SPECIFICATION:** GENERATOR SERVICES**DATE:** JUNE 2019

Item	Description	Price
a.	Preliminary and General	\$
b.	Supply (CIF) of a 60 kVA 415V 50Hz standby diesel generator	\$
c.	Installation of the 60 kVA 415V 50Hz standby diesel generator	\$
d.	Supply and installation of remote mounting automatic transfer switch	\$
e.	Testing and commissioning	\$
f.	Supply of As Installed Drawings	\$
g.	Supply of Installation Manuals	\$
h.	Twelve (12) months Maintenance	\$
i.	Contingency Sum	\$5,000-00
	TOTAL TENDER PRICE (VAT inclusive)	\$
	VAT @ 9%	\$
	TOTAL TENDER PRICE (VAT inclusive)	\$

Name of Tenderer _____

Signature _____ Date _____

IRWIN ALSOP PACIFIC LTD
BUILDING SERVICES CONSULTING ENGINEERS
DOMAIN, SUVAPROJECT NO: 7835
DATE: JUNE 2019

APPENDIX III SCHEDULE OF TECHNICAL DATA

PRINCIPAL : LAND TRANSPORT AUTHORITY

SHEET 1 of 2 SHEETS

PROJECT : KARAVI WEIGHBRIDGE STATION
KARAVI, BA, FIJI

PROJECT NO: 7835

SPECIFICATION: GENERATOR SERVICES

DATE: JUNE 2019

NAME OF TENDERER:

Two loose copies of this Schedule are supplied with this Specification.

One copy shall be completed, signed by the Tenderer and returned with his tender.
The other copy is for the Tenderer's retention.

A Tender shall be regarded as not complying with this Specification if the information required by this Schedule of Technical Data is not supplied with the Tender.

Tenders are to be based on equipment etc., as specified.

Alternatives may be submitted, but must be clearly described to receive consideration.
For each alternative, an alternative tender price must be submitted.

	NAME OF PROPOSED SUB-CONTRACTOR / SUPPLIER	SUB-CONTRACT EQUIPMENT
1
2
3
4
5
6

	COMPARABLE WORK CARRIED OUT BY THE TENDERER AND APPROXIMATE VALUE	
1	\$.....
2	\$.....
3	\$.....
4	\$.....
5	\$.....
6	\$.....

APPENDIX III SCHEDULE OF TECHNICAL DATA

PRINCIPAL : LAND TRANSPORT AUTHORITY

SHEET 2 of 2 SHEETS

PROJECT : KARAVI WEIGHBRIDGE STATION
KARAVI, BA, FIJI

PROJECT NO: 7835

SPECIFICATION: GENERATOR SERVICES

DATE: JUNE 2019

1. DIESEL GENERATOR SET

Manufacturer

Model No

2. AUTOMATIC TRANSFER SWITCH

Manufacturer

Model No

Name of Tenderer _____

Signature _____ Date _____

APPENDIX IV SCHEDULE OF RATES (To be completed and submitted with Tender)**PRINCIPAL** : LAND TRANSPORT AUTHORITY**SHEET 1 of 1 SHEET****PROJECT** : KARAVI WEIGHBRIDGE STATION
KARAVI, BA, FIJI**PROJECT NO:** 7835**SPECIFICATION:** GENERATOR SERVICES**DATE:** JUNE 2019

The following Schedule of Rates shall be used as a basis to value variations (either additions or deletions) and progress claims for this Contract.

Rates shall include all overheads (including on and off site supervisory staff, allowance etc.) profit and VAT.

Rates for equipment and materials are that delivered to site, without installation. (Unless otherwise stated)

ITEM	DESCRIPTION	UNIT	PRICE (VAT)
1	Licensed Technician (Generator Services)	Per hour	\$.....
2	Technician (Generator Services)	Per hour	\$.....
3	Licensed Electrician	Per hour	\$.....
4	Electrician	Per hour	
5	Unskilled Labour	Per hour	
6	<u>On Cost Percentage Mark-Ups</u>		
	a) Labour	%
	b) Material	%
	c) Plant	%

Name of Tenderer _____

Signature _____ Date _____