



**TERMS OF REFERENCE & TECHNICAL SPECIFICATION**

PROJECT NAME: Supply and Installation of 250 KVA Brand-New Generator set for Administration Building at Main Campus

LOCATION: Bataan Peninsula State University, Main Campus

**SECTION 1: THE PROJECT**

**I. PROJECT DESCRIPTION:**

PROJECT NAME:	Supply and Installation of 250 KVA Brand-New Generator set for Administration Building at Main Campus
LOCATION:	Bataan Peninsula State University, Main Campus
PROJECT DURATION:	60 calendar days

Scope of work:

- 1. Supply and Installation of 250 kva / 200kw Generator set
- 2. Supply and Installation of Manual transfer switch
- 3. Supply, Installation and tapping of wires to existing Electrical Panel Board of Administration Building
- 4. Conduct Testing and Commissioning

**II. OBJECTIVES:**

- 1. To provide a back-up power during power outage
- 2. To provide Safe, Functional and ready to use Generator

- END OF SECTION -

**SECTION 2: TECHNICAL SPECIFICATIONS**

QTY:	DESCRIPTIONS:
1 UNIT	Standby power: 250 kva / 200kw Voltage: 230 Frequency: 60 hz Speed: 1800 rpm Phasing: 3 phase Silent type
1 UNIT	600 amp manual transfer switch



TERMS OF REFERENCE & TECHNICAL SPECIFICATION

1 UNIT	30 METERS WIRE, 250mm <sup>2</sup> , 500mcm THHN
	Delivery and Commissioning included

SECTION 3: PROJECT COST ESTIMATES

The bidders shall submit the quantities and cost of the different types of works to be carried out in accordance with DPWH Department Order No. 72 series of 2012 dated October 5, 2012. In particular, the quantities and cost of each work item shall be calculated and a bill of quantities shall be prepared. The bidders shall draw up a unit price analysis for each of the main pay work items.

1. The Direct Cost are the following:
- a. Cost of Materials to be used in doing the work item called for, which shall include the following:

a.1. Cost of source, including processing, crushing, stockpiling, loading, local taxes, construction and/or maintenance of haul roads, etc.

a.2. Expenses for hauling to project site.

a.3. Handling expenses

a.4. Storage

a.5. Allowance for waste and/or losses, not to exceed 5% of materials requirement.

b. Cost of Labor:

b.1. Salaries and wages as authorized by the Department of Labor and Employment

c. Equipment Expenses:

c.1. Rental of equipment which shall be based on the prevailing "Associated Construction Equipment Lessors, Inc." (ACEL) rental rates approved for use by the DPWH (Presently it is the 2009 ACEL Rates). Rental rates of equipment not indicated in the ACEL booklet shall be taken from the rental rates prepared by the DPWH Bureau of Equipment. For simplicity in computation, the operated rental rates are preferred over the bare rental rates as the former includes operator's wages, fringe benefits, fuel, oil, lubricants and equipment maintenance. The make, model and capacity of the equipment should be indicated in the detailed unit cost analysis.

c.2. Mobilization and demobilization, shall be treated as a separate pay item. It shall be computed based on the equipment requirements of the project stipulated in the proposal and contract booklet. In no case shall mobilization and demobilization exceed 1% of the Estimated Direct Cost (EDC) of the civil works items.
2. The Indirect Cost shall consist of the following:
- a. Overhead Expenses - ranges from 5 - 8% of the EDC, which includes the following:

a.1. Engineering and Administrative Supervision.

a.2. Transportation allowances.



**TERMS OF REFERENCE & TECHNICAL SPECIFICATION**

- a.3. Office Expenses, e.g., for office equipment and supplies, power and water consumption, communication and maintenance.
- a.4. Premium on Contractor's All Risk Insurance (CARI).
- a.5. Financing Cost.
  - Premium on Bid Security
  - Premium on Performance Security
  - Premium on Surety for Advance Payment
  - Premium on Warranty Bond (one year)
- b. Contingencies - ranges from 0.5 - 3% of the EDC. These include expenses for meetings, coordination with other stakeholders, billboards (excluding Project Billboard which is a pay item under the General requirements), stages during ground breaking & inauguration ceremonies and other unforeseen events
- c. Miscellaneous Expenses - ranges from 0.5 - 1% of the EDC. These include laboratory tests for quality control and plan preparation.
- d. Contractor's Profit Margin – shall be 8% of EDC: for projects above Php5 Million and 10% for projects Php5Million and below
- e. VAT Component - shall be 12% of the sum of the EDC, OCM and Profit. The following items shall not be subjected to OCM and Profit mark-up:
  - e.1. Mobilization and demobilization
  - e.2. Provision of Service Vehicle

**SECTION 4: SUBMITTALS**

**1. Additional Technical Documents**

- a. Generator technical specifications

Prepared by:

  
**Ar. Roxette S. Umerez**

Head, TWG for Infrastructure

Recommending Approval by:

**(Sgd.)Dr. Edmundo C. Tungol**  
Vice President, Admin and Finance

Approved by:

Noted by:

  
**Dr. Alfredo D. Valentos, PME**  
PPES Director

**(Sgd.)Dr. Gregorio J. Rodis**  
University President