

## **PART 2: PRICING DATA**

### **ECC3 Option B**

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## C2.1 Pricing assumptions: Option B

### 1. How work is priced and assessed for payment

Clause 11 in NEC3 Engineering and Construction Contract (ECC3) Option B states:

<b>Identified and defined terms</b>	11	
	11.2	(21) The Bill of Quantities is the <i>bill of quantities</i> as changed in accordance with this contract to accommodate implemented compensation events and for accepted quotations for acceleration.
		(28) The Price for Work Done to Date is the total of
		<ul style="list-style-type: none"><li>the quantity of the work which the <i>Contractor</i> has completed for each item in the Bill of Quantities multiplied by the rate and</li><li>a proportion of each lump sum which is the proportion of the work covered by the item which the <i>Contractor</i> has completed.</li></ul>
		Completed work is work without Defects which would either delay or be covered by immediately following work.
		(31) The Prices are the lump sums and the amounts obtained by multiplying the rates by the quantities for the items in the Bill of Quantities.

This confirms that Option B is a re-measurement contract and the bill comprises only items measured using quantities and rates or stated as lump sums. Value related items are not used. Time related items are items measured using rates where the rate is a unit of time.

### 2. Function of the Bill of Quantities

Clause 55.1 in Option B states, "Information in the Bill of Quantities is not Works Information or Site Information". This confirms that specifications and descriptions of the work or any constraints on how it is to be done are not included in the Bill, but in the Works Information. This is further confirmed by Clause 20.1 which states, "The *Contractor* Provides the Works in accordance with the Works Information". Hence the *Contractor* does **not** Provide the Works in accordance with the Bill of Quantities. The Bill of Quantities is only a pricing document.

### 3. Guidance before pricing and measuring

Employers preparing tenders or contract documents, and tendering contractors are advised to consult the sections dealing with the bill of quantities in the NEC3 Engineering and Construction Contract Guidance Notes before preparing the *bill of quantities* or before entering rates and lump sums into the *bill*.

There is no general provision in Option B for payment for materials on Site before incorporation into the *works*. If secondary Option X14 Advanced payment has not been used then the tendering contractor may obtain the same effect by inserting appropriate items in the method related charges where the *method of measurement* allows, or alternatively making allowance in the rates of the *bill of quantities* for the financing of Plant and Materials until they are incorporated in the *works*.

When compensation events arise, the default position is that the Bill of Quantities is not used to calculate the cost effect of the event. Defined Cost and the resulting Fee is used and Defined Cost includes all components of cost which the *Contractor* is likely to incur, including so called P & G items. Rates and lump sums from the Bill of Quantities, or from any other source, may be used instead of Defined Cost and

the Fee only if the *Contractor* and *Project Manager* agree. If they are unable to agree, then Defined Cost plus Fee is used.

#### 4. Measurement and payment

##### 4.1. Symbols

The units of measurement described in the Bill of Quantities are metric units abbreviated as follows:

Abbreviation	Unit
%	percent
h	hour
ha	hectare
kg	kilogram
kl	kilolitre
km	kilometre
km-pass	kilometre-pass
kPa	kilopascal
kW	kilowatt
l	litre
m	metre
mm	millimetre
m <sup>2</sup>	square metre
m <sup>2</sup> -pass	square metre pass
m <sup>3</sup>	cubic metre
m <sup>3</sup> -km	cubic metre-kilometre
MN	meganewton
MN.m	meganewton-metre
MPa	megapascal
No.	number
sum	Lump sum
t	tonne (1000kg)

##### 4.2. General assumptions

- 4.2.1. Unless otherwise stated, items are measured net in accordance with the drawings, and no allowance has been made in the quantities for waste.
- 4.2.2. The Prices and rates stated for each item in the Bill of Quantities shall be treated as being fully inclusive of all work, risks, liabilities, obligations, overheads, profit and everything necessary as incurred or required by the *Contractor* in carrying out or providing that item.
- 4.2.3. An item against which no Price is entered will be treated as covered by other Prices or rates in the *bill of quantities*.
- 4.2.4. The quantities contained in the Bill of Quantities may not be final and do not necessarily represent the actual amount of work to be done. The quantities of work assessed and certified for payment by the *Project Manager* at each assessment date will be used for determining payments due.
- 4.2.5. The short descriptions of the items of payment given in the *bill of quantities* are only for the purposes of identifying the items. Detail regarding the extent of the work entailed under each item is provided in the Works Information.

**4.3. Departures from the *method of measurement***

4.3.1.

**4.4. Amplification of or assumptions about measurement items**

The following is provided to assist in the interpretation of descriptions given in the *method of measurement*. In the event of any ambiguity or inconsistency between the statements in the *method of measurement* and this section, the interpretation given in this section shall be used.

## C2.2 the *bill of quantities*

Item nr	Description	Unit	NO	Quantity	Rate	Amount
<b>ITEM NO</b>	<b>DESCRIPTION</b>					
	<b>ITEM 1</b>					
<b>1</b>	<b>PRELIMINARIES AND GENERAL</b>					
<b>1.1.</b>	<b>Fixed Costs</b>					
1.1.1	Establishment of Facilities on the Site (Once-Off Delivery of Containers)	Once Off	1	1		
1.1.2	De-establishment of Facilities on the Site (Once-Off Removal of Containers)	Once Off	1	1		
1.1.3	Scaffolding Establishment	Once Off	1	1		
1.1.4	Scaffolding De-establishment	Once Off	1	1		
1.1.5	Plumber Subcontractor Establishment	Once Off	1	1		
1.1.6	Plumber Subcontractor De-establishment	Once Off	1	1		
1.1.7	CFK Subcontractor Establishment	Once Off	1	1		
1.1.8	CFK Subcontractor De-establishment	Once Off	1	1		
1.1.9	NGR Subcontractor Establishment	Once Off	1	1		
1.1.10	NGR Subcontractor De-establishment	Once Off	1	1		
1.1.11	Entry Medicals	Once Off	1	15		
1.1.12	Exit Medicals	Once Off	1	15		
1.1.13	PPE (Once Off)	Once Off	1	15		
1.1.14	Security / Police Clearance certification	Once Off	1	15		
1.1.15	Safety File	Once Off	1	1		
<b>1.2.</b>	<b>Time-Related Costs</b>					
1.2.1	Site Office Container (1 Off Insulated, with Air-Con): 12m x 6m	Monthly	1	11		
1.2.2	Site Kitchen Container (1 Off): 6m x 3m	Monthly	1	11		
1.2.3	Site Storage Container (1 Off): 12m x	Monthly	1	11		

	2m					
1.2.4	Ablution Unit (Serviced) (2 Off): 6m x 3m	Monthly	2	11		
1.2.5	Travelling (1 Off Kombi 14 Seater)	Monthly	1	11		
1.2.6	Site Bakkie (4x4 Double Cab Bakkie)	Monthly	1	11		
1.2.7	NGR - Rigging/Assembly 2 No Teams (for 11 months)	Sum	1	1		
1.2.8	CPGP - Scaffolding 2 No Teams (for 11 months)	Sum	1	1		
1.2.9	Hire of scaffolding - 70 tons (for 11 months)	Sum	1	1		
	<b>Sub-Total Item 1 (Preliminaries and Generals) Carried to Final Summary</b>					
	<b>ITEM</b>					
<b>2</b>	<b>SITE RESOURCES</b>					
<b>2.1</b>	<b>NORMAL TIME</b>					
	Normal working hours are working hours that fall within the following periods:					
	Mondays - Fridays: 07:00 - 16:00					
2.1.1	Installation Manager (5 - 9 Years Experience) (1 Off)	Hours	1	1 088		
2.1.2	Quality Control Manager (5 - 9 Years Experience ) (1 Off)	Hours	1	1 088		
2.1.3	Engineer (5 - 9 Years Experience) (1 Off)	Hours	1	1 088		
2.1.4	Project Coordinator (5 - 9 Years Experience) (1 Off)	Hours	1	1 088		
2.1.5	Application Specialist (5 - 9 Years Experience) (1 Off)	Hours	1	1 088		
2.1.6	Commissioning Technician (5 - 9 Years Experience) (1 Off)	Hours	1	1 088		
2.1.7	Installation Technician (5 - 9 Years Experience) (2 Off)	Hours	2	1 088		
2.1.8	General Labour (0 - 3 Years Experience) (3 Off)	Hours	3	1 088		

2.1.9	Semi-Skilled Labour (5 - 9 Years Experience) (3 Off)	Hours	3	1 088		
2.1.10	Safety Officer (0 - 3 Years Experience) (1 Off)	Hours	1	1 088		
	<b>Subtotal Item 2.1 Normal Time</b>					
	<b>Sub-Total Item 2 (Site Resources) Carried to Final Summary</b>					
	<b>ITEM 3</b>					
<b>3</b>	<b>CEMS EQUIPMENT</b>					
3.1	Additional Scope for Water Supply Control and Signal to Control Room	Item	1	1		
3.2	Multicomponent Analyser System	Item	1	1		
3.3	FWE200DH	Item	1	1		
3.4	Flow Measurement	Item	1	1		
3.5	Temperature and Pressure Measurement	Item	1	1		
3.6	Commissioning Parts	Item	1	1		
3.7	Wear and Tear Parts for 2 Years	Item	1	1		
3.8	Spare Parts for 2 Years	Item	1	1		
3.9	Design and instrument Air and Water Purge Fabrication	Item	1	1		
3.10	OEM supervision and installation	Item	1	1		
3.11	Gravimetric Comparison Measurement	Item	1	1		
	<b>Sub-Total Item 3 (CEMS Equipment) to Final Summary</b>					
	<b>ITEM 4</b>					
<b>4</b>	<b>FABRICATION</b>					
4.1	Supply and deliver CEMS platform	Item	1	1		
4.2	Supply and deliver CEMS ports	Item	1	1		
	<b>Sub-Total Item 4 (Fabrication) to Final Summary</b>					

	<b>ITEM 5</b>					
<b>5</b>	<b>WATER SUPPLY</b>					
5.1	Supply and install water pipeline to pump	Item	1	1		
	<b>Sub-Total Item 5 (Water Supply) to Final Summary</b>					
	<b>FINAL SUMMARY</b>					
ITEM 1	PRELIMINARIES AND GENERALS					
ITEM 2	SITE RESOURCES					
ITEM 3	CEMS EQUIPMENT					
ITEM 4	FABRICATION					
ITEM 5	WATER SUPPLY					
	<b>Final Summary Total</b>					