

## 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:

**Identified and defined terms** 11  
11.2

(21) The Bill of Quantities is the *bill of quantities* 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

- the quantity of the work which the *Contractor* has completed for each item in the Bill of Quantities multiplied by the rate and
- a proportion of each lump sum which is the proportion of the work covered by the item which the *Contractor* has completed.

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.

4.4.1.

#### 4.5. Cost Price Adjustments

4.5.1. CPA FORMULA - CONSTRUCTION.

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100% of the price quoted for the P&G (Bill 1), Materials and Installation (Bill 2) Assembly & Erection column only (Bill 3), Stringing (Bill 4), Minor works (Bill 5), Access and Environmental Works (Bill 6) will be subject to escalation in accordance with the following formula:

$$P_1 = P_0 \times (0,15 + 0,05 \left( \frac{C_1}{C_0} + 0,3 \frac{L_1}{L_0} + 0,1 \frac{R_1}{R_0} + 0,40 \frac{I_1}{I_0} \right))$$

Where:

P <sub>1</sub>	=	The final price after escalation
P <sub>0</sub>	=	Contract price calculated from contract rates
C <sub>1</sub>	=	Index for cement, SEIFSA Table – M-6, ruling in the month that the work is invoiced
C <sub>0</sub>	=	Index for cement, SEIFSA Table M-6, ruling in October 2022
L <sub>1</sub>	=	Index for actual labour cost (field force), SEIFSA Table C-3(A), ruling in the month that the work is invoiced
L <sub>0</sub>	=	Index for actual labour cost (field force), SEIFSA Table C-3(A) ruling in October 2022
R <sub>1</sub>	=	Index of road freight costs, SEIFSA Table L-2(A), ruling in the month that the work is invoiced
R <sub>0</sub>	=	Index for road freight costs, SEIFSA Table L-2(A), ruling in October 2022
I <sub>1</sub>	=	Consumer price index, SEIFSA Table D-3, ruling in the month that the work is invoiced
I <sub>0</sub>	=	Consumer price index, SEIFSA Table D-3, ruling in October 2022

#### 4.5.2. SUPPLY OF GALVANISED STEEL

100% of the price quoted for the supply of steelwork (Bill 3.1 – Materials column) will be subject to escalation in accordance with the following formula:

$$P = P_0 \times \left( 0,15 + 0,05 \frac{Z_1}{Z_0} + 0,40 \frac{S_1}{S_0} + 0,30 \frac{L_1}{L_0} + 0,10 \frac{C_1}{C_0} \right)$$

Where:

Indices for the formula will be extracted from the official publication by the Steel Engineering Industries Federation of South Africa (SEIFSA) as follows:

Z <sub>0</sub>	=	Zinc Index, SEIFSA Table F – Metal Prices, ruling in October 2022
Z <sub>1</sub>	=	Zinc Index, SEIFSA Table F – Metal Prices, ruling in the month of ex works release inspection
S <sub>0</sub>	=	Merchant Steel Price Index, SEIFSA Table E-EX – Plates HR Grade S355JR, ruling in October 2022
S <sub>1</sub>	=	Merchant Steel Price Index, SEIFSA Table E-EX - Plates HR Grade S355JR, ruling in the month of ex works release inspection
L <sub>0</sub>	=	SEIFSA Index of Actual Labour Cost Table C-3(A), all hourly paid employees, ruling in October 2022
L <sub>1</sub>	=	SEIFSA Index of Actual Labour Cost Table C-3(A), all hourly paid employees, ruling in the month of ex works release inspection
C <sub>0</sub>	=	SEIFSA Consumer Price Index – all income groups – Table D-3, ruling in October 2022
C <sub>1</sub>	=	SEIFSA Consumer Price Index – all income groups – Table D-3, ruling in the month of ex works release inspection

**NOTE: (this note is deleted only at award stage, once the Parties have agreed on their arrangements for making payments which include price adjustment for inflation.)**

In the event that tenderers propose a different CPA Formula, tenderers would state their requirements in a schedule supplied with their tender. If this is acceptable to the *Employer*, he will then enter the accepted data here in the final draft of the contract.

## C2.2 the *bill of quantities*