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CECA NEC4 Bulletin

CECA Member Briefing:

Bulletin Nr 53: Pricing and Payment under ECC Option B

Introduction

Training and development support is a key part of CECA's core offer for its membership and working in conjunction with GMH Planning it has delivered a programme of training events around the NEC Form of Contract across several CECA UK regions.

In addition to this training, a series of monthly NEC Contract Bulletins are being produced for both Contractors and Subcontractors to improve practical awareness on key topics within the NEC. The coverage, whilst not exhaustive, is intended as a general overview on some of the contractual principles to increase a wider understanding in support of more sustainable outcomes.

For the purposes of these bulletins a contractual relationship between a "Client" and "Contractor" is assumed. The same rules/principles also apply if the contractual relationship is between a "Contractor" and a "Subcontractor" and so the term "Contractor" will be used to describe both parties.

These bulletins are based on the latest NEC4 family of contracts, but the same principles and rules would apply where parties are engaged under an NEC3 form of contract.

Coming next month:

Bulletin Nr 54: Termination

Please respond to Lucy Hudson should you require any further information on the CECA NEC4 Bulletins via e-mail: lucyhudson@cecasouth.co.uk.

For further advice or guidance on the NEC details please visit www.gmhplanning.co.uk where you will find a wealth of free NEC Guidance Notes, NEC FAQs, and other helpful measures.

NEC Bulletin 53: Pricing and Payment under ECC Option B (Priced Contract with Bill of Quantities)

This bulletin considers how the pricing and payment mechanism is intended to work in the NEC4 Engineering and Construction Contract (ECC) with main Option B (priced contract with bill of quantities). The article is equally applicable to the NEC3 ECC as there were no substantial amendments to the clauses cited below. Also, as there are few differences between the ECC and the Engineering and Construction Subcontract (ECS) it is also relevant to the NEC3 and NEC4 ECS.

The need for me to produce this in-depth analysis of Option B became apparent as, over recent years, I've dealt with several *Clients, Project Managers and Contractors* who have misunderstood how it is intended to be operated. This is a follow-up article to CECA bulletin No. 27 – a focus on Engineering and Construction Contract (ECC) Option B by Glenn Hide. With the exception of referenced quotations, the conventions for capitalised and italicised terms from the NEC4 are adopted in this article.

The Bill of Quantities in the ECC

Unlike other, more traditional contracts that use a bill of quantities, the ECC differs in four primary ways:

1. There is no concept of a contract price or contract sum that the *Contractor* is entitled to be paid which is subject to later adjustment.
2. It is not a fixed price lump sum contract, it is a remeasurement contract where the *Contractor* is entitled to be paid for the actual quantity of work completed.
3. The *bill of quantities* does not specify the type or quality of work to be carried out, it merely states the quantity of work.
4. The *bill of quantities* is not used to value variations (compensation events in the ECC), unless the *Project Manager* and *Contractor* agree otherwise in accordance with clause 63.2.

The use of Option B is suitable where changes in the quantity rather than the form or type of work are anticipated. Also, in order to have the *bill of quantities* prepared the *Client* will usually need to have substantially completed the design, therefore, it is not suitable for use where the *Contractor* is to have significant design responsibility.

The ECC does not refer to any particular standard method of measurement, instead the *Client* states the *method of measurement* to be used in Contract Data part one and also states any departures from the standard method of measurement.

In the ECC there are two 'priced' main Options, with Option A being a priced contract with activity schedule and Option B being a priced contract with bill of quantities. The difference between these two 'priced' Options is which of the Parties carries the risk of changed quantities. In Option A this risk is allocated to the *Contractor* (subject to the requirements stated in the Scope) and in Option B this risk is allocated to the *Client*. Whilst Option A is a fixed price lump sum contract, Option B is not. Therefore, whilst Option B is described as 'a priced contract with bill of quantities', it is not a lump sum fixed price contract, as stated above, there is no concept of a contract price or contract sum:

"*… there is no definition of the contract price (as that term is used in other forms), priced contract, 'activity schedule', 'bill of quantities', cost reimbursable contract, or management contract. In each case the meanings of these terms will have to be ascribed in the context of the contract documents as a whole. Regarding main options A and B, the priced contracts, the term 'priced' appears to be used as a verb. Thus no contract price is stated but rather it is in the process of pricing the works using either an activity schedule or a bill of quantities that is material. It is a non-static process.*"[1]

NEC state clearly what the intention of a contract based on Option B is:

"*A bill of quantities comprises a list of work items and quantities. It is prepared by or for the Client. Standard methods of measurement are published which state the items to be included and how the quantities are to be measured and calculated. The supplier prices the items, taking account of the Scope and including for all matters which are at the supplier's risk. The Client pays for work done on the basis of actual measurement of those items with quantities.*"[2]

Keating on NEC puts this rather more succinctly:

1. McInnis, Arthur, *The New Engineering Contract: A Legal Commentary,* 2001, p. 366.
2. NEC, *Establishing a Contract and Procurement Strategy Volume 1*, 2017, p.30.

"Option B is described as a 'priced contract with bill of quantities'. It is a remeasurement contract which allows the Contractor to be paid based on the actual quantities of work performed as opposed to the quantities set out in the bill of quantities … The Contractor bears the risk of his pricing of the bill but the Employer / Client takes the risk of changes in quantities."[3]

Whilst in civil engineering contracts remeasurement is normal, in building contracts it is not so. The function of the bill of quantities in a building contract is usually to only provide a breakdown of the contract price and rates for variations.

Clients considering using Option B should be alert to the fact that it will require adequately resourcing to ensure remeasurement is carried out to suit the *assessment interval* e.g. monthly as it will be required in order for the *Project Manager* to comply with their duty at clause 50.1 to assess the amount due at each assessment date.

Both Eggleston and Evans[4] have criticised Option B for not being clear enough that it is intended to be a remeasurement contract. Given my experiences on exactly this point I am minded to agree with them. The drafting would only need relatively simple amendment to bring the clarity required to avoid misunderstandings.

Assessing the Price for Work Done to Date

In the ECC it is the *Project Manager* who is responsible for assessing the amount due in accordance with clause 50.1 and the contract states how this is done:

"… *the amount due at the assessment date is*

- *the Price for Work Done to Date,*
- *plus other amounts to be paid to the Contractor,*
- *less amounts to be paid by or retained from the Contractor."*[5]

There is no distinction in the ECC between how amounts due are assessed for interim payments and how they are assessed for the final payment, all payments are assessed using the Price for Work Done to Date.

The Price for Work Done to Date (PWDD) is defined as:

"… the total of:

- *the quantity of 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 which is without notified Defects that the correction of which will delay following work."[6]

The NEC4 User Guide states:

"The PWDD is calculated using the Bill of Quantities rates and lump sums and the total remeasured quantity of work completed according to the definition and criteria stated in this clause."[7]

In summary, the *Contractor* is entitled to be paid for the actual quantity of work completed, whether that is less, the same or more than the quantity stated in the Bill of Quantities. It therefore follows that as a result the *Contractor* takes no risk associated with changed quantities and that this risk is allocated to the *Client*.

Bill of Quantities versus Scope

Unlike more traditional contracts, the pricing documents in the ECC do not tell the Contractor what work to do, or specify the quality of it, their function is purely commercial. Under Option B this is as a result of two linked clauses:

"The Contractor Provides the Works in accordance with the Scope."[8]

and

"Information in the Bill of Quantities is not Scope or Site Information."[9]

Therefore, the Scope takes precedence over the Bill of Quantities in terms of specifying and describing the *works*.

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3. Keating on NEC Contracts, Second Edition, 2022, p.3.
4. Eggleston, Brian, *The NEC4 Engineering and Construction Contract: A Commentary* (Third Edition, 2019), pp. 25-27; Evans, Steven C., *The Contractors NEC3 ECC Handbook 2017*, p.11 and p.117.
5. ECC clause 50.3.
6. ECC clause 11.2 (30).
7. NEC, *User Guide: Managing an Engineering and Construction Contract*, 2017, p.46.
8. ECC clause 20.1.
9. ECC clause 56.1.

It should be noted however that the *Contractor* is protected from the risk of both mistakes in the Bill of Quantities (clause 60.6) and mistakes in the Scope (clauses 17.1 and 17.2) both of which will be compensation events if they occur.

Assessing compensation events

In the ECC, compensation events are the *Client's* risk, they deal with variations, changes, breaches of contract by the *Client*, the *Project Manager* and the *Supervisor*, and other risks such as bad weather and unforeseen ground conditions.

A compensation event entitles the *Contractor* to additional time and / or money:

"Quotations for a compensation event comprise proposed changes to the Prices and any delay to the Completion Date and Key Dates assessed by the Contractor."[10]

Unlike more traditional contracts there are no compensation events which only give entitlement to additional time.

The contract states how compensation events are assessed for money:

"The change to the Prices is assessed as the effect of the compensation event upon

- *the actual Defined Cost of the work done by the dividing date,*
- *the forecast Defined Cost of the work not done by the dividing date and*
- *the resulting Fee."*[11]

The Bill of Quantities is only used to assess compensation events in certain circumstances:

"For the whole or a part of a compensation event for work not yet done and for which there is an item in the Bill of Quantities, the changes are

  - *a changed rate,*
  - *a changed quantity or*
  - *a changed lump sum.*

- *For the whole or a part of a compensation event for work not yet done and for which there is no item in the Bill of Quantities, the change is a new priced item which, unless the Project Manager and the Contractor agree otherwise, is compiled in accordance with the method of measurement.*
- *For the whole or a part of a compensation event for work already done, the change is a new lump sum item."*[12]

Other than this, the Bill of Quantities is not used to assess compensation events unless the *Project Manager* and the *Contractor* agree to it:

"The Project Manager and the Contractor may agree rates or lump sums to assess the change to the Prices."[13]

It should be noted that this clause does not restrict the rates or lump sums that may be used to being those included in the contract, they could be from anywhere, e.g. a price book such as Spon's, a different contract or general market knowledge.

The contract also states how compensation events are assessed for time:

"A delay to the Completion Date is assessed as the length of time that, due to the compensation event, planned Completion is later than planned Completion as shown on the Accepted Programme current at the dividing date."[14]

The compensation events are mainly stated under clause 60.1, however there are additional compensation events stated in main Option B and in certain secondary Options.

The compensation events fall under eight broad headings:

1. Scope-related events
2. Client default events

10. ECC clause 62.2.
11. ECC clause 63.1.
12. ECC clause 63.15.
13. ECC clause 63.2.
14. ECC clause 63.5.

3. Client liability events
4. Project Manager / Supervisor-related events
5. Physical conditions / adverse weather
6. Prevention
7. Measurement-related events
8. Secondary Option clause events.

The Scope-related and measurement-related events relevant to Option B are:

- Clause 60.1(1) – the *Project Manager* gives an instruction changing the Scope.
- Clause 60.4 – final quantity differences.
- Clause 60.5 – increased quantities causing delay.
- Clause 60.6 – correction of a mistake in the Bill of Quantities.
- Clause 60.7 – assessment of events resulting from inconsistencies.

The compensation event at clause 60.4 protects the Contractor from the effects of significant changes in quantity:

"A difference between the final total quantity of work done and the quantity stated for an item in the Bill of Quantities is a compensation event if

- *The difference does not result from a change to the Scope,*
- *The difference causes the Defined Cost per unit of quantity to change and*
- *The rate in the Bill of Quantities for the item multiplied by the final total quantity of work done is more than 0.5% of the total of the Prices at the Contract Date.*

If the Defined Cost per unit of quantity is reduced, the affected rate is reduced."

In relation to clause 60.4 the NEC4 User Guide states:

"A change in quantity is not a compensation event. A compensation event is triggered only by the changed quantity satisfying all three tests stated in the clause. This clause only applies to changes in quantities which do not result from changes to the Scope. Subject to the exceptions in clause 60.1(1), a change to the Scope is always a compensation event, regardless of the effect on quantities."[15]

The compensation event at clause 60.5 protects the Contractor from delays due to changed quantities:

"A difference between the final total quantity of work done and the quantity for an item stated in the Bill of Quantities which delays Completion, or the meeting of the Condition stated for a Key Date is a compensation event."[16]

In relation to clause 60.5 the NEC User Guide states:

"A difference between original and final quantities in a Bill of Quantities is not a compensation event. The amount due to the Contractor includes the PWDD, which is based on actual quantities of work done. However, any difference of quantities which causes Completion to be delayed, or delays meeting of the Condition stated for a Key Date is a compensation event."[17]

Broome[18] has criticised how compensation events are handled under Option B as being "confusing and heinously hard to operate". My experiences in training people to use Option B and advising clients on interpretation of the clauses tells me his view is justified and that the clauses are long overdue an overhaul.

Conclusions

Under Option B, the risk of changes to the Scope, substantial changes in quantity and mistakes / inconsistencies in the Bill of Quantities / contract documents is allocated to the *Client*. When these events occur, the *Contractor* is entitled to compensation events for both the time and the money incurred as a consequence.

15. NEC, *User Guide: Managing an Engineering and Construction Contract*, 2017, p.58.
16. ECC clause 60.5.
17. NEC, *User Guide: Managing an Engineering and Construction Contract*, 2017, p.58.
18. Broome, Jon, *NEC4: A User's Guide*, 2021, pp.33-35.

Also, the risk of smaller changes in quantity is allocated to the *Client*, however, these are not dealt with as compensation events, they are dealt with through remeasurement of the Bill of Quantities.

In summary, it can be seen that:

1. The *Contractor* is entitled to be paid for the actual quantity of work completed in accordance with clause 50.3 and clause 11.2(30).
2. Any compensation events entitle the *Contractor* to both additional time (delay to the Completion Date and Key Dates) and money (changes to the Prices) in accordance with clause 62.2.
3. Clause 63.1 and clause 63.5 state how time and money are assessed for compensation events.
4. Changes in quantity are only compensation events in limited circumstances i.e. when clause 60.4 or clause 60.5 is triggered.
5. If changes in quantity impact the critical path i.e. delay Completion, clause 60.5 entitles the *Contractor* to compensation events.

I hope this article provides a useful analysis that helps NEC users to understand how to properly manage their Option B contracts.

This article has been written by Neil Earnshaw from NE Consult who is a widely recognised expert in NEC contracts. The article is for general guidance only and does not contain definitive advice.

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