March 2023

CECA NEC4 Bulletin

CECA Member Briefing:

Bulletin No. 27 – Focus on Engineering and Construction Contract (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 28– Focus on Engineering and Construction Contract (ECC) options C&D

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

For further advice or guidance on the NEC details please visit www.gmhplanning.co.uk or contact GMH Planning Ltd by e-mail glenn@gmhplanning.co.uk.

NEC Contract focus month 27 - Focus on Engineering and Construction Contract (ECC) option B

The main contract utilised between the Client and Contractor for general building/construction type projects is the Engineering and Construction Contract(ECC). It is further subdivided into options, of which the Client will choose either option A,B,C,D,E or F. This bulletin will consider the specific elements of option B for both tendering purposes and administering a live project.

An overview to Option B – This option is called a "Priced contract with bill of quantities" and more commonly known as a "lump sum fixed price" contract, albeit with an element of "remeasure". It is chosen by Clients who have a generally well-developed Scope with a risk profile that would be sensible/realistic for a Contractor to be able to price, but with some change likely. The changes are expected to be in the quantity of activities rather than changes in the types of activity.

Bill of Quantities: The Client is expected to produce the Bill of Quantities and is included within the documents given to a Contractor at tender stage. This is different to option A, where it is the Contractor who will produce the equivalent Activity Schedule used in that type of contract.

Detail Bill of Quantities for Proposed Factory Building					
SECTION- A EARTHWORK					
ITEM NO.	DESCRIPTION	QTY	UNIT	RATE	AMOUNT
A-01	Earth work excavation for all type of work in all soils like black cotton soil, clay, sand, muroom, etc but other than soft and hard rock including shoring, strutting and dewatering wherever required, scaffolding and stacking the excavated materials within 50 meters, all complete as per specifications.				
	a) From average ground level up to 1.50 M depth.	1250	Cu.m.	100	1,25,000
	b) Below 1.5M up to 3.0M depth	1250	Cu.m.	110	1,37,500
	c) Below 3.0M up to 4.5M depth	50	Cu.m.	140	7,000
	d) Below 4.5M up to 6.0M depth	170	Cu.m.	180	30,600

In simple terms the Bill of Quantities is produced by breaking the project down into a number of items, and then stating the expected quantity of each item that is anticipated will be required. Contract data part 1 will identify the method of measurement (the measurement techniques followed) that has been used to create the Bill of Quantities. The Contractor will then be able to state a unit rate based on that quantity, and by multiplying the quantity by the rate will give a projected cost of that line item. The sum of all the line items added together represents the overall tender price (the Prices). The Bill of Quantities can also include single lump sum items where the rate will be a single amount. The Contract will state within contract data part 2 where within their submission the completed Bill of Quantities is, which will form an integral part of the signed contract.

Price for Work Done to Date under option B: The Price for Work Done to Date that the Contractor can claim for each period is:

- quantity of work completed multiplied by the rate
- proportion of each lump sum which the Contractor has completed.

This is different to option A where the Contractor is only paid when a line item is 100% complete. Under option B the Contractor is paid for the proportion of each line item that they have completed. The contract quantities are remeasured, and the Contractor ends up being paid for the actual amount of work they do. This means that the risk for changes in the quantities remains with the Client, as they are the one who identified the quantities within the pricing document. If a line item identified that "20 widgets" were anticipated to be installed, but to meet the requirements of the Scope the Contractor ends up having to install 19 or 21 widgets, they will be paid 19 or 21 times the unit rate identified.

Clause 60.4 changes to quantities within the Bill of Quantities: For small changes in quantity, the Contractor is simply paid the unit rate identified within the Bill of Quantity for the amount that they do. However, where there is a significant change in the quantity, it may be unfair to either party to be tied to that rate. Clause 60.4 identifies a different rule where the rate would no longer apply if the quantity changes by a large amount. In simple terms, if a line-item value changes by more than 0.5% of the Prices at the Contract Date (i.e. original tender sum) then it is assessed as

a compensation event using Defined Cost, rather than the Bill of Quantities rate. For a £1 million tendered contract, 0.5% would represent a line item changing by more than £5,000. If the 20 widgets in our example had been stated as a rate of £2,500 per widget, it would mean that for anywhere between 18 and 22 widgets installed, the Bill of Quantity rate would apply. If, to meet the requirements of the Scope, it turned out that 30 widgets were needed, the first 22 widgets would be paid at the £2,500 rate, and the remaining 8 widgets would be assessed as a compensation event built up using the Short Schedule of Cost Components.

If the Contractor undervalued the original rate and they can prove that they are really costing them £5,000 each to install, they will be able to price £5,000 for the 8 additional ones as a compensation event. They will have lost money on the original 22 but will not continue to lose money where there is a large additional quantity change. It is equally true that if the rate was quite generous and they are only really costing the Contractor £1,250 each, they will be paid £2,500 for the first 22 and only get £1,250 each for the remaining 8 widgets. The same principle exists when the quantity is reduced, and the rate identified may need to be increased if it would have been more expensive to install a smaller quantity, where the cost of equipment bought to install the widgets may have been spread across the greater number. This principle ensures that overall neither party is disadvantaged if a quantity rate changes significantly.

Clause 60.5 impact on programme where quantities increase: It would be possible for every unit rate to increase slightly but not trigger a compensation event under clause 60.4. If that occurred against items on the critical path, the planned Completion may be delayed due to every activity slightly increasing. Clause 60.5 identifies that if this occurs then this would be a compensation event, and that the movement in planned Completion should also lead to an equivalent movement in the Completion Date, to avoid the Contractor being liable for any delay damages (where X7 has been used).

Clause 60.6 mistakes in the Bill of Quantities: The Project Manager gives an instruction to correct mistakes in the Bill of Quantities that are either departures from rules for item descriptions in the method of measurement, or due to ambiguities/inconsistencies with any other contract document. Any such correction will be a compensation event, which can result in either an increase or decrease to the Prices.

Clause 60.7 liability with errors in the Bill of Quantities: This clause confirms that a compensation event resulting from a correction of an inconsistency between the Bill of Quantities and another document (e.g. Scope), the Contractor is assumed to have taken the Bill of Quantities as correct. This means that any items that the Client requires that have not been listed with the Bill of Quantities will be treated as a compensation event, even if that item was included within the drawings/details of the Scope.

Should Contractor price the Bill of Quantities or the Scope? The Contractor only has the opportunity to price the items in the Bill of Quantities. Clause 20.1 obligates the Contractor to provide the works in accordance with the Scope. The Bill of Quantities is not Scope, so any ambiguities between an item in the Scope but not allowed for within the Bill of Quantities will need to be identified as an ambiguity in accordance with clause 17.1. This will require an instruction by the Project Manager to resolve the ambiguity, and assuming what is stated in the Scope is what is required, will need to correct the mistake within the Bill of Quantities (60.6). This should then also be confirmed as a compensation event under clause 60.7. The Contractor will be entitled to assess the cost and time implications that have resulted due to the error in the Bill of Quantities.

Should a Contractor point out any errors in the Bill of Quantities at tender stage? The overwhelming answer has to be "yes". The Contractor may feel there could somehow be a commercial advantage to say nothing if they spot such an ambiguity, given it will be treated as a compensation event that they can potentially earn profit upon. It is, however, rarely easy to agree the value of compensation events, and it could also be putting significant pressure on a Client's budget that they had not allowed for. It would therefore be better to avoid this scenario wherever possible, and pointing this out at tender stage could avoid arguments and give a Contractor good credibility during the tender process which may even help them win the tender.

Compensation event assessments: Unless by agreement, Bill of Quantity rates will NOT be used to assess compensation events. They will be built up from first principles using the Short Schedule of Cost Components. The Bill of Quantities does not need to be revised every time a compensation event is agreed, it will just be added to the "bottom line" of the Bill of Quantities. The Prices at any one point in time will be the original total of the Bill of Quantities at tender stage, plus the value of any implemented (agreed) compensation events.

People Rates: It is a new NEC4 requirement for Contractors to now include a list of People Rates as part of contract data part 2 within their tender submission for option B. These are the rates that will be used in the assessment of any compensation events. Previously under NEC3 this rate would be proposed for each event as they occurred, but the intent under NEC4 is that these rates are pre-agreed and therefore one less thing to argue over as part of a compensation event quotation. For any compensation event, where the list of People Rates does not include a category of a person required, the Project Manager and Contractor may agree a new rate. If they do not agree, the Project Manager assesses the rate based on other similar People Rates. If the Contractor does not agree with this rate assessed by the Project Manager, their only recourse would be through the dispute process within the contract.

Short Schedule of Cost Components: This is only used under option B to assess compensation events so is slightly more condensed than the full schedule which is used for option D. It is made up of eight categories that the Contractor would be able to claim relevant costs for when assessing a compensation event quotation:

1. People – by using the People Rates multiplied by the amount of time appropriate to the rate spent within the Working Areas

2. Equipment – amounts for equipment using the rates or published list in contract data for items such as excavators, scaffolding, dumpers etc

3. Plant and Materials – for all permanent works that are installed such as pipework, cladding, cabling etc

4. Subcontractors – a new category for NEC4 where Subcontractors costs can now be included as a lump sum, rather than having to break it down into the other categories listed

5. Charges – for example, services into the site to run offices welfare, disposal of materials from site, charges for access to the Working Areas

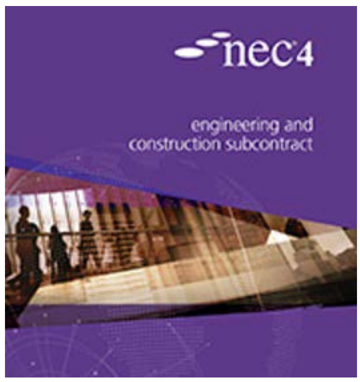
6. Manufacture and Fabrication – rates for people involved in manufacture and fabrication of Plant and Materials outside the Working Areas

7. Design – rates for people involved in design done outside the Working Areas, as well as cost of travel expenses when entering the Working Areas

8. Insurance – which only confirms that you can not claim for insurable events or insurance premiums

Value Engineering: NEC4 has added in a new process entitled “Contractor’s proposals”. Where a scheme is a Client design, a Contractor can offer a quotation for a saving where they are able to recommend a value engineering proposal and share in the resultant saving. In contract data part 1 there will be stated a “value engineering percentage” which is the factor that will adjust the total of the Prices. If the value engineering percentage is 50%, the Prices will be reduced by 50% of the quotation, meaning that the Client gets half, and the Contractor gets half. Anything other than 50% would obviously mean that one party would get more of a saving than the other in such eventuality.

Differences with the Engineering and Construction Subcontract (ECS): The Contractor should be looking to pass their contractual obligations with their supply chain on a back-to-back basis. The ECS allows the Contractor to do exactly that. The rules, principles and even clause numbers are almost identical in the ECS as they are in the ECC. Everything in this bulletin therefore applies to the Subcontractor in relation to their Contractor if they are engaged under an ECS option B. The only real changes between the ECC and ECS are that the names of the Parties change (from Client/Contractor to Contractor/Subcontractor), and that some of the timescales change for Subcontractor to do something within and for the Contractor to respond.



Summary: Option B contracts carry less risk to a Contractor than option A as the Client takes the risk of errors in the Bill of Quantities. Contractors should price and programme the Bill of Quantities. It is recommended to point out at tender stage any identified ambiguities between other documents and the Bill of Quantities, to get addressed before the contract is entered into, to avoid conflict and increased commercial administration that would be needed to assess entitlement during the project.