

PRACTICE

Resource-thickening assessments in compensation event quotations



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KEY POINTS

- NEC contractors often encounter additional overhead costs where there are numerous compensation events.
- The resulting 'resource-thickening' in quotations can be difficult to assess so practical tips are suggested here.
- Ideally contractors and project managers should discuss and agree how best to address quantification assessments and the most appropriate methods to use.

Including additional overhead costs in an NEC compensation event quotation, known as 'resource-thickening', frequently leads to disagreement with both the principle and amount, although the occurrence is largely inevitable on projects with multiple compensation events.

NEC compensation events

Under the NEC4 Engineering and Construction Contract (ECC), compensation events are generally those events stated at clause 60.1 which the contractor has not made any allowance for within the prices. Clause 6 includes a corresponding procedure, providing

for notification, quotations, assessment and implementation.

The main intent is to compensate a contractor for the effect an event has on the prices, completion date or a key date, so a corresponding quotation assessment should quantify and value all effects of the compensation event.

Clause 63.1 provides that, '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,' (bullets omitted).

The reference to 'dividing date' is a point in time when the project manager or supervisor issues a relevant communication, or where the contractor notifies a compensation event. The terms 'work done' and 'work not done' refer to the scope of the compensation event, with the dividing date separating them.

The evidential test is the balance of probability, with whoever is seeking to rely upon the evidence having the burden of proof, which is generally easier for a direct effect than a consequential one. Additionally, I suggest the principle of 'remoteness' also applies, with a progressive scale of remoteness linked to an increasing level of required evidence.

The definition of defined cost includes either the schedule of cost components, or the short schedule of cost components, with both including the cost of people. As the only rights in respect of a compensation event relate to changes to the prices, the completion date or a key date, the entire effect on the defined cost of people should be captured within an assessment, especially considering that once a compensation event is implemented, it provides an element of finality to matters.

Resource-thickening in quotations

Resource-thickening occurs where additional resources are required to deal with the effects of compensation events, with a particular focus on supervisory and management resources that may be considered a part of preliminaries. This happens for many reasons including additional scope of work, the conditions which work is undertaken and imposed inefficiencies.

The effects of a single compensation event are most likely absorbed by the existing people on a project. The combined effect of numerous compensation events, however, may lead to a saturation point whereby the resources are not able to absorb the effects. The cost of any additional people time, however, cannot reasonably be included within a single quotation assessment, not least because it likely stems from the combined effect of numerous compensation events.

The occurrence of compensation events throughout a project is not linear or reasonable to predict with any degree of accuracy, with the impact on people depending upon numerous factors, including the frequency of occurrence, the amount of scope change, the level of associated disruption and the stage of a project.

Any assessment is further complicated as the effects generally form part of work not done and so relate to forecast defined cost assessment, the quantification of which is frequently challenging.

Producing a forecast requires an appropriate forecasting methodology essentially based upon either a qualitative or quantitative approach. The former uses opinion and judgement with the latter using predictive modelling usually based on interpretation of historic data and information. The intention is to predict what the actual defined cost will be in relation to work not done.

During the earlier stages of a project the amount of available data and information is limited, which creates an obvious difficulty with evidencing an assessment. Even during the later stages of a project different factors impact upon the accuracy of an assessment, including: the workload of resources fluctuates periodically and during different stages of a project; efficiency gains associated with familiarity; staff changes

disrupt the familiarity efficiency gain; changes to the project senior management team can have a positive or negative impact on morale; and company, industry or economic factors generally impact upon productivity levels.

As a quotation assessment should represent the difference between the total defined cost including the compensation event and the total defined cost which does not include the compensation event, any such issues should be taken into consideration.

Practical tips for assessment of resource-thickening

Percentage addition

Although a generic approach, I have encountered amended contracts that include a tendered percentage in contract data which makes for a simpler assessment process avoiding potential disagreement. Where this is not a contract mechanism it creates difficulties, not least in how a percentage is assessed and what it applies to.

The approach can be broken down into component parts, such as applying a different percentage to discrete types of resources, or by applying a calculation to quantified unit measurements of work. This moves away from a simple percentage application however, which is the primary benefit.

Risk allowance

Clause 63.8 requires the inclusion of risk allowances for cost and time for matters which have a, 'significant chance of occurring,' which, by definition, relates to matters that have not actually occurred, that is work not done.

The difficulty with such an assessment is a quantification issue, whereby the contract does not expressly state how allowances are evaluated. The NEC User Guide suggests they are included in the same way that risks are included within a tender, intimating that they do not need to be in the form of defined cost.

Risk allowances for cost are frequently calculated by applying a probability percentage to an estimated value. In my experience, both components are usually derived based on subjective opinion, so similar evidential problems would apply.

Price as forecast defined cost

Including an increasing assessment of people costs within quotations is a commonly

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accepted method which also complies with the assessment principles in clause 63.1. This may require a more considered quantitative approach to forecasting when looking further ahead in time, although the difficulty again would be evidencing the quantification, especially in terms of remoteness.

Project manager's assumption

If there is considerable uncertainty over the effects of a compensation event, the project manager can decide, in consultation with the contractor where appropriate, to limit the uncertainty by stating assumptions to base a quotation upon. This could be a sensible way to deal with such matters where there are quantification obstacles to overcome.

An assumed quantification allowance can be re-assessed when data and information provides for an assessment with a greater degree of accuracy.

Tender allowance

An issue which often arises is whether the tender allowance for staff resources was sufficient and that a resource-thickening assessment is used, at least in part, to address this. Agreeing a baseline that correlates with the tender allowance would be a sensible starting point, which could be used as the basis for assessment.

Recommendations

There are some key challenges presented by resource-thickening, largely relating to a quantification assessment. Clause 62.2 requires the contractor to provide details, which is important in explaining how the assessment has been made, further providing reasonable evidence to establish causal links.

The contractor and project manager should engage in dialogue to obtain a common understanding of matters to facilitate progress through the compensation event procedure. This should lead to agreement on how to address a quantification assessment and what method, or combination, is most appropriate to use.

NEC users should however be aware that submitting a resource-thickening claim towards the end of a project, with an assessment based upon actual cost less tender allowance, is highly unlikely to succeed – not least because it is not acting as stated in the contract. ○