

Incentivisation under NEC3

by Dr Jon Broome, leading **edge** projects consulting ltd

Introduction

In the 9 October 2009 edition of *Building* magazine, Steve Morgan of British Airports Authority said a standard NEC3 Engineering and Construction Contract option C (target contract with activity schedule) is not enough to procure all the objectives he wants from a contract – including ‘hard’ objective factors such as schedule, safety and quality as well as ‘soft’ subjective factors such as cooperation and innovation.

This is a ‘how to’ response to that article. It firstly identifies some key principles and considerations for incentivisation before discussing how they are put into effect under the NEC3 secondary options.

Some Incentivisation principles

Construction incentivisation principles are based upon substantial research¹ from the USA, where what are sometimes known as ‘award fee’ contracts are more widely used. The principles can be applied whatever member of the NEC3 family and main option are chosen.

The purpose of using incentives is to align more closely the motivations of the contractor, consultant or supplier to those of the client, so that by working for the success of their individual organisation, they are more directly working for the success of the project from the client’s perspective.

The principles require the setting of objectives, measures and targets, where :

- ❖ An objective is what the client wants, for example completion achieved as far ahead of the completion date as possible.
- ❖ A measure is the unit by which performance against this objective is measured, for example days completion is achieved before the completion date.
- ❖ A target is the level of performance (against the objective and using the measure) which the parties are aiming for and, in the context of incentivisation, the contractor is rewarded for reaching. For example, the contractor is paid a sum for achieving completion x days before the completion date.

Clearly the base measure and targets have to be realistic and achievable: For incentivisation to work well, then

- ❖ average performance by the contractor means it earns average profit
- ❖ good performance means it earns good profits
- ❖ excellent performance means it earns excellent profits.

Consequently, it stands to reason – and research strongly supports this – that average or current performance needs to be benchmarked and that targets for good and excellent performance need to be perceived as realistic and achievable.

Equally, from the contractor’s point of view, it has got to be worthwhile for the contractor to reach the target level of performance, otherwise there is no motivation. If a target is not realistic and worthwhile, then the incentive mechanism will fail from either or both parties’ perspectives.

If achieving the desired high level of performance is, from the contractor's point of view, too easy, then the client will feel cheated as the contractor has not 'earned' its extra profit.

On the other hand, if the contractor is over-incentivised to achieve a single objective, then it may focus exclusively on this one at the expense of other employer objectives, leading to a dissatisfied client. This is why 'drop dead' incentive payments as opposed to graduated incentives need to be thought through thoroughly. For example, for an incentivised 'drop dead' date, you get paid a large sum if you meet it or nothing at all if you do not. Consequently, once it is perceived as being unachievable, motivation disappears.

It is worth pointing out that, particularly in construction, with both contractor and consultant profits relatively low as a percentage of total project cost, the client has a high degree of financial leverage to produce superior performance. In other words a little bit of extra cost to the client can have a dramatic effect on contractors' and consultants' profit and hence strongly motivate them to improve performance.

Positive or negative, end or interim?

Positive incentives work better than negative incentives. There is quite strong evidence, despite the widespread use of damages, that negative incentives have a detrimental effect on contract performance. Once problems start happening, participants start blaming each other to transfer liability while the problem simply gets bigger.

On the other hand, because it should be in all parties' interests for the contractor to achieve higher performance, positive incentives – that is bonuses – encourage participants to work together to overcome problems. Pragmatically, what works best is a combination, but with a greater emphasis on bonuses.

The client also needs to decide whether to use end contract targets or interim process targets. End targets are those which can only be confirmed at the end of the contract, for example time to complete, and overall health and safety performance. When using interim process targets, the contractor is rewarded as the project progresses. Interim process targets are typically actions and behaviours by the contractor which should increase the likelihood of end objectives being achieved, for example extent of innovation, or adherence to a project management process. They can, however, be achievement of shorter interim milestones.

The pros and cons of each are briefly compared in Table 1.

End targets	Interim process targets
Only measured at end and potentially only focused on towards the end	Typically measured regularly (and rewarded) throughout the contract, so focused on throughout contract
Rewards what the employer really wants from the contract	Should (indirectly) lead to end contract objectives being achieved
Easier to define and measure	Harder to define, but can be done. May lead to dispute and/or ill feeling if contractor thinks it has achieved and the client does not
Can become irrelevant, once end project target perceived as being too hard to meet	Should lead to continuous improvement over course of contract

Table 1: Comparison of end and interim process targets

Constructing an Incentive Scheme

Much of the value of using incentives is actually achieved pre-contract. This is because it is better to have tightly described performance measures and targets against which the incentive is paid from the outset. Taking time to think about these, defining them specifically and asking why they are important can be hugely valuable to a client organisation. The author knows this from experience with working with a number of clients ! Communicating these to a contractor pre-contract is also hugely valuable in focusing the contractor on exactly what the client wants.

Equally, understanding the contractor's cost drivers – and therefore how it makes profit – to construct an incentive scheme that works can be insightful for a client, helping the client to be more constructive in the relationship.

Simplicity is the key: if there are too many targets to focus on, then participants' focus will be diffused. Additionally, there is a greater danger that the interaction of targets may over-motivate the contractor to perform against some targets and under-perform against others. For instance, in a target-cost contract, the contractor could be given a small share of any over-run pain and a large bonus for early completion. This could effectively result in the client paying a large share of the contractor's costs as the programme is inefficiently 'crashed' to receive a large time bonus, which the client also pays for. The interactions between the incentives needs to be thought through.

Now let us consider the use of negative incentives, or damages, and positive incentives – bonuses – under NEC3 contracts.

Incentivising with NEC3 damages

First of all, it is worth noting a couple of general points on damages. Damages cannot be specified at more than a genuine pre-estimate of loss to the client organisation. If they are, then they would be construed as penalties and thrown out by a court.

From a contractor's perspective, damages also serve a positive purpose in that they cap liabilities. So, for instance, if NEC3 option X7 delay damages are specified (and they usually are), then the contractor knows it will not be liable for more than this sum per day that completion or takeover is later than the completion date.

The other option which covers damages is X17, low performance damages. This would be used for a contract where the works and works information are described using a performance specification – for instance, deliver a power station that produces x MW of electricity at $y\%$ conversion efficiency.

However, performance damages are notoriously hard to apply as the contractor can often come up with reasons why they do not apply, such as things the client has or has not done that prevented the project reaching the required level of performance. This is a good reason to not use them as, if they are specified, they can become the focus if a problem occurs. Consequently, rather than protecting the client from poor performance, they may well encourage it.

It is far better to cap a contractor's downside by using option X18, limitation of liability. While not having X17 on low performance damages will make it harder for a client to recover damages, it reduces the focus on them. This allows

- ❖ less risk allowance in a contractor's prices
- ❖ participants to focus on achieving superior performance.

Incentivising with NEC3 bonuses

The most obvious NEC3 bonus to use is option X6, bonus for early completion, where the contractor is paid a bonus for each day that completion or take over occurs ahead of the contractual completion date.

As with option X7 on delay damages, X6 can apply to sections of the works. Note that if meeting a specific date is especially important to a client and it is willing to pay a 'drop dead' bonus, then the wording here is not applicable.

In addition, option X20 on key performance indicators can be used, whereby targets are specified in an incentive schedule. These can be interim targets – which 'indicate' that the contract is on or ahead of expected performance – or end contract targets, in which case they are not 'indicators' but results.

Summary

Using NEC3 secondary options to stimulate improved contractor performance is not hard: the wording is already there. What does require thought and dialogue by clients is

- ❖ being clear about what is important to the client (the objectives) and why
- ❖ deciding how objectives will be measured and what targets will be set
- ❖ using a combination of positive (bonuses) and negative (damages) incentives, but with a greater emphasis on the positive
- ❖ constructing an incentive plan that both reflects the value the client puts on achievement of each objective with the costs (and hence profit) the contractor will incur in delivering them – otherwise the contractor will be over- or under-incentivised for each objective in respect of the value the client puts on each.

The key is simplicity, so clients should focus on the few key objectives that are important to them rather than trying to incentivise everything. Lastly, never forget that the biggest incentive of all is repeat order profitable work.

Reference

1. Summarised in : Broome, J. *Procurement routes for partnering: a practical guide*, Thomas Telford, 2002, chapter 5, available online at www.icevirtuallibrary.com.



As well as being chair of the Association for Project Managements Contracts & Procurement SIG, Dr Jon Broome BEng PhD MAPM is managing consultant of **leading edge projects consulting ltd**, a company which specialises in front end activities to help set projects involving multiple parties up for success.

Much of Jon's expertise is focussed around contracts & procurement and in particular the practical use of the NEC3 family of contracts, on which he has written, trained and consulted worldwide. He is also an accomplished project based facilitator and authors both contractual and bid documents. He can be contacted on jon@leadingedgeprojects.co.uk or on 07970 428 929.