



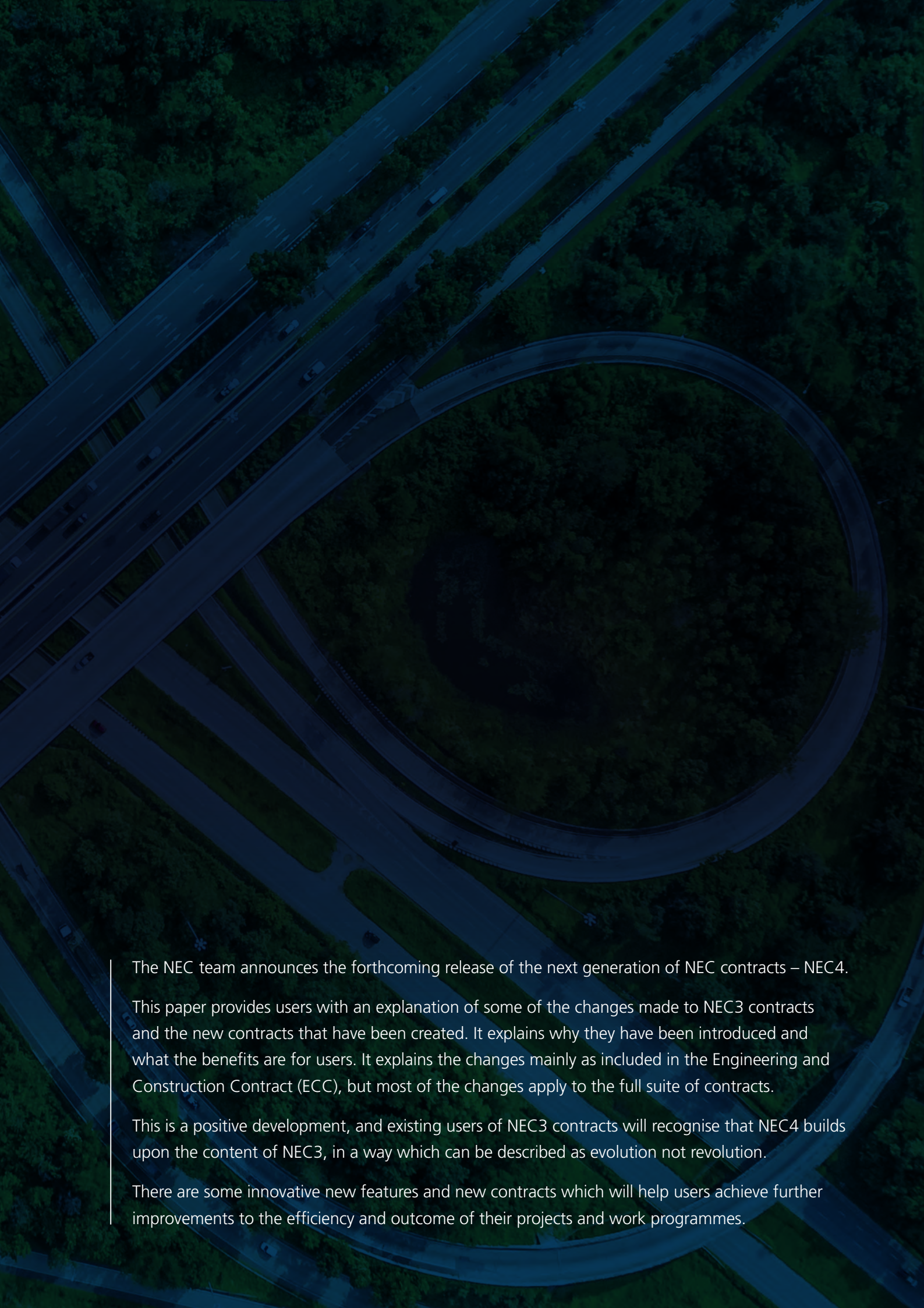
nec4

**The next  
generation**

*An explanation of  
changes and benefits*

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The NEC team announces the forthcoming release of the next generation of NEC contracts – NEC4.

This paper provides users with an explanation of some of the changes made to NEC3 contracts and the new contracts that have been created. It explains why they have been introduced and what the benefits are for users. It explains the changes mainly as included in the Engineering and Construction Contract (ECC), but most of the changes apply to the full suite of contracts.

This is a positive development, and existing users of NEC3 contracts will recognise that NEC4 builds upon the content of NEC3, in a way which can be described as evolution not revolution.

There are some innovative new features and new contracts which will help users achieve further improvements to the efficiency and outcome of their projects and work programmes.



## Why the need for NEC4?

In the last ten years, the engineering and construction industry has made step change improvements in the way projects and work programmes are procured and delivered. It has been refreshing to see how the industry has innovated and improved, leaving behind a historical reliance upon traditional methods of procurement and limited forms of contract.

NEC has played a part in helping the engineering and construction industry do things differently and better. It has done so for example, by introducing effective project management procedures requiring pro-active management of risk and change, and the day-to-day use of an up-to-date works programme, into the contract itself. The ability to choose different pricing options (including target contracts and cost reimbursable contracts) has also given Clients flexibility in the allocation of risk, and the ability to share risk and

jointly manage it, collaboratively.

In a world where projects are increasingly delivered by companies, people and supply chains from across the world, the use of plain English and present tense which can easily be translated and understood by people whose first language is not English, remains important.

It is 12 years since NEC3 was published, and through a network of more than 400 companies who are regularly engaged via the NEC3 Users Group, and from Clients generally, the NEC team has received a lot of feedback and requests for further features and contract solutions which support on-going improvement.

NEC4 has taken the successful NEC3 contract suite and enhanced it, with some new features and some new forms of contract. All of the changes are a direct result of feedback from industry, to support methods and provide solutions which Clients are demanding.

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# New forms of contract

## NEC4 Design Build Operate Contract (DBO)

The new DBO contract allows Clients to procure a more integrated whole-life delivery solution.

The benefit of DBO is that it combines responsibility for usually disparate functions – design, construction, operation and/or maintenance, procured from a single supplier.

The DBO contract can include a range of different services to be provided before, during and after engineering and construction works are completed. These could include operation of the asset to achieve required performance levels, more straightforward facilities management (FM) type services, or a combination of both.



NEC4 Design Build Operate Contract (DBO)

This is not designed as a design-build-finance-operate (DBFO) contract. The contract does not include all the provisions that would be required if the supplier was funding the construction and recovering that cost during the operation phase.

## The Alliance Contract (ALC) – consultation form

The NEC4 Alliance Contract, to be published initially in consultation form, has been created to support Clients who wish to take a significant step forward by fully integrating the delivery team for large complex projects.

It suits Clients who wish to enter into a single collaborative contract with a number of participants in order to deliver a project or programme of work. The basis of the contract will be that all parties work together in achieving Client objectives, and share in the risks and benefits of doing so.

The potential benefit of using this contract is a much deeper collaboration between all project participants, bound by common interests and reduced grounds for dispute.

This contract is different from the other contracts within the NEC4 suite, in that it is a multi-party contract, based upon an integrated risk and reward model. However, it follows where possible the same principles and structure of other NEC4 contracts, with familiar provisions, management processes and terminology.

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# New features

## Contractor's proposals

NEC4 contracts now also contain processes for identification of opportunities by either party to improve the outcome of the project.

The Contractor may propose a change to the Scope which reduces cost. The Project Manager has the option to accept and instruct, not accept, or request a quotation prior to making a decision.

The Contractor may also propose an acceleration to achieve Completion before the Completion Date. The process contained in NEC3 for quotation and acceptance or non-acceptance of an acceleration proposal remains unchanged in NEC4.

These new provisions mean that both the Project Manager and the Contractor have the ability to propose positive changes to improve the outcome of the project.

A new secondary option has also been developed which allows the Contractor to identify opportunities to change the Scope which would reduce the cost of an asset over its whole life. The Contractor makes a proposal which, if accepted, results in a Project Manager's instruction to change the Scope. The Contractor shares in the cost savings of opportunities that it initiates.

## Defined Cost

The Professional Services (PSC), Term Service (TSC) and Supply Contracts (SC) now use

Defined Cost in the same way as Engineering and Construction Contract (ECC). These refer to the method of assessing costs in the Schedule of Cost Components.

This provides a common approach across all contracts to allow closer integration of teams and of the supply chain.

## Contractor's design (design and build) option

A new secondary option has been created for the Engineering and Construction Contract (ECC) and Engineering and Construction Subcontract (ECS) with more extensive provisions specifically to support design and build contracting.

This deals with the requirement for professional indemnity insurance to be provided by the Contractor,



NEC4 contracts

using an extension to the Insurance Table. The Contractor's design duty has also been aligned with the industry standard preferred by insurers, that is to use the skill and care normally used by professionals designing similar works.

Clauses which deal with intellectual property ownership, and license to

use material provided by the parties to each other, have also been introduced.

Finally, a retention of documents clause is provided specifically in relation to design information.

The benefit of this secondary option is that it contains provisions that users and insurers frequently require, and which have otherwise been introduced to contracts by using Z-clauses.

## Consensual dispute resolution

NEC4 has introduced a four week period for escalation and negotiation of a dispute, which takes place prior to any formal proceedings are commenced.

This requires nominated senior representatives of each party to meet and try to reach a negotiated solution.

It is a mandatory requirement where dispute resolution option W1 applies, but is consensual where dispute resolution W2 applies (in the UK where the Housing, Grants, Construction and Regeneration Act 1996 applies).

The benefit of this is to improve the chance of a negotiated solution being reached, and maintain collaboration between the parties.

## Dispute Avoidance Board option

The ECC now includes a dispute avoidance option W3 which can be used if the UK Housing, Grants, Construction and Regeneration Act does not apply. This is to refer any dispute to a Dispute Avoidance

Board nominated by the parties at the time the contract is formed.

The approach is that the Dispute Avoidance Board members become familiar with the project prior to any dispute arising, by making regular visits to see the project at set intervals, or when requested by the parties.

If a dispute arises it is referred to the Dispute Avoidance Board for review. The board visit the project to discuss the issues with the parties and help find a solution. They provide a recommendation to resolve the dispute if it is not resolved by discussion.

The dispute can only be referred to the tribunal (being either litigation or arbitration) if the recommendation provided by the Dispute Resolution Board is not accepted by the parties.

Again, the benefit of this new option is to encourage and support the parties in resolving any dispute or difference consensually, and to support users who wish to use this facility on their projects. The Adjudicator's Contract has been changed to allow it to be used for the appointment of board members, and accordingly it has been renamed Dispute Resolution Service Contract.

### **Finality of assessments**

NEC4 contracts now include a number of procedures which are aimed at reaching agreement on the final amounts due under the contract.

Provisions have been introduced to the cost based contracts (main options C, D, E and F) that allow the Contractor

to instigate a review and acceptance of its Defined Cost by the Project Manager, upon request.

The Contractor notifies the Project Manager when part of the Defined Cost is ready for review and the Project Manager is required to review them within 13 weeks, and to communicate acceptance, or advise of any errors identified. If the Project Manager fails to do this then the Contractor's Defined Costs and Disallowed Costs are treated as accepted.

This encourages checking and agreement of Defined Cost and Disallowed Cost progressively as the work proceeds, and not to defer the exercise until the project has been completed.

A further procedure requires the Project Manager to issue a final assessment of payment due to the Contractor within four weeks of the issue of the Defects Certificate. If the Project Manager does not do this, the Contractor may issue its own final assessment.

This final assessment becomes conclusive if not challenged by either party referring the issue to dispute resolution within four weeks of it being issued.

The Professional Services (PSC), Term Service (TSC) and Supply Contracts (SC) now use Defined Cost in the same way as Engineering and Construction Contract (ECC). These refer to the method of assessing costs in the Schedule of Cost Components.



NEC4 Term Service Contract (TSC)

In the Term Service Contract, an option is included to bring annual finality to payments.

The benefit of these clauses is to aim to bring commercial finality to the contract. It encourages the parties to work together in advance of the deadline to ensure agreement is reached.

### **Payment provisions**

Periodic assessments now require an application by the Contractor. If no application is made by the assessment date, the Contractor does not receive payment. If however payment is due to the Client, the Project Manager makes the assessment and certifies payment.

This approach, which was applied in the short forms of contract, is now applied to all contracts.

### **Undertakings to Others (collateral warranties)**

A new secondary option has been introduced to NEC4 contracts, which deals the requirement for undertakings often referred to as 'collateral warranties'. Using this secondary option, Clients can secure separate undertakings from the Contractor to other parties, and also from Subcontractors to the Client and other parties as required. The form of undertaking (or warranty) is included in the Scope. All other details of undertakings to be provided are set out in Contract Data.

Collateral warranties are frequently required in practice. This has remained the case even in the UK

where the Contracts (Rights of Third Parties) Act 1999 apparently offers a more straightforward solution, which is also available in NEC contracts by using option Y(UK)3.

The benefit of this clause is that Clients now have the option to request the undertakings they require in the form that they require, without the need for Z-clause amendments to the contract.

### **Early Contractor Involvement (ECI)**

The NEC4 Engineering and Construction Contract (ECC) now includes as a secondary option the clauses for early contractor involvement (ECI) previously published by NEC in 2015.

ECI is a method of appointing a Contractor at an early stage, to participate in the development of designs and proposals. It enables the Contractor's input to the design at a stage when significant improvements and innovation can be introduced.

This procurement method helps to identify and eliminate problems and risks from a project and incorporate construction considerations at an early stage. It also provides a good foundation for collaboration between the parties.

### **Building Information Modelling (BIM)**

The NEC4 ECC includes a new secondary option specifically to support the use of BIM. This provides the additional contract clauses required to support the production of information for BIM.

This requires the Contractor to provide an Information Execution Plan either for incorporation in the contract from the outset, or within a period defined by the Client.

The Plan must satisfy the BIM Requirements provided by the Client.

The BIM option also deals with issues such as the Information Model, Information ownership and liability of the parties.

### **Quality Management**

The NEC4 contracts introduce a requirement for the Contractor to prepare and issue a quality management system and plan.



### **Bribery and corruption**

The NEC4 contracts now include core clauses which prohibit corrupt acts and provide a termination remedy in the event that a corrupt act is carried out.

This has been introduced to keep step with Client and legislative demands, and to avoid the need for Z-clause amendments.

### **Confidentiality and publicity**

The NEC4 contracts (except short ones) now include core clauses which restrict the disclosure of project information.



This has been introduced to keep step with Client demands, and to avoid the need for Z-clause amendments.

### **Transfer of benefits (assignment)**

NEC4 contracts now contain a core clause which allows either party to transfer the benefit or any rights under the contract to another party.

This has been introduced to keep step with Client demands, and to avoid the need for Z-clause amendments.

### **Additional compensation events**

NEC4 contracts now provide the facility for additional compensation events to be added into the contract. This would be a Client decision made at the time the contract is prepared, with details being provided in Contract Data Part One.

The benefit is that Clients can now alter the standard risk profile contained in NEC4 contracts, without the need for Z-clause amendments.

A new compensation event has been added where the Project Manager notifies the Contractor that a quotation for a proposed instruction is not accepted. This is for the cost of preparing the quotation. This ensures that the Contractor is compensated if the Project Manager requests numerous quotations for proposed instruction not all of which are accepted or instructed.

## **Other significant changes**

### **Terminology**

The following changes in terminology have been made.

The term 'Employer' has been replaced with 'Client', and this is now consistent throughout the NEC4 suite of contracts except for the Supply Contract.

The term 'Scope' has been used in all contracts for the document which describes the work being provided. This has replaced different terms used previously, for example 'Works Information' in the ECC, 'Service Information' in the TSC, and 'Goods Information' in the SC.

NEC4 contracts are also now gender neutral. Any previous use of the words 'he' or 'his' have been replaced with gender neutral terms, for example 'it' and 'its'. This is a simple but important improvement.

The 'Risk Register' has been re-named the 'Early Warning Register' to distinguish it from the project risk register often used for wider project management purposes.

Section 8 in NEC4 contracts has been re-titled 'Liabilities and Insurance' (it used to be titled 'Risk'). The term 'liabilities' is generally used in this section now in place of 'risk' and drafting has been developed to suit.

Secondary option X4 has been re-titled 'Ultimate holding company guarantee' from 'Parent company guarantee', and contains provisions

The NEC4 BIM secondary Option supports the production of information for BIM and requires the production of an Information Execution Plan which satisfies the Requirements provided by the Client.

that recognise the existence of more complex corporate structures.

Secondary option X12 'Partnering' has been re-titled 'Multi-party collaboration' to better describe what it does.

### Schedules of Cost Components and Fee

Some changes have been made to simplify the Schedules of Cost Components and associated Contract Data inputs.

All contracts now include Schedules of Cost Components which are used to assess Defined Cost.

There is now only one Schedule of Cost Components (SCC) in NEC4 contracts main options C, D and E. The Short Schedule of Cost Components (SSCC) has been removed from these contracts to make things simpler.



NEC4 Engineering and Construction Contract (ECC)

Subcontractor costs have been moved to the Schedule of Cost Components (SCC) and payment has been made consistent across all options. The Defined Cost is the cost paid to the Subcontractor.

The Working Areas Overhead and People Overhead in the SCC and SSCC respectively have been

removed, for simplicity. The relevant items are paid as actual Defined Cost instead.

The design overhead has been removed as an addition to rates for designers.

The rules for people costs have been drafted to allow for working in different locations, not exclusively in the Working Areas. The contract now states that people whose normal place of work is in the Working Areas are to be included in Defined Cost, according to their time worked 'on this contract'. The benefit of this change is to recognise changes in society towards more flexible and efficient work patterns.

The Short Schedule is used in the priced Options (A and B), and adopts a pre-priced approach for people cost to replace the cost based calculation in NEC3.

There is now only one Fee percentage in NEC4 contracts, with no separate Fee percentage for subcontracted works. The application of Fee to Defined Cost is consistent across all main options. Feedback from users is that having different Fee percentages was unnecessary.

The benefit of these changes is to make the contracts easier to set up and use. The need for a detailed set of rules to properly govern the administration of Defined Cost and Disallowed Cost remains important however, to provide sufficient clarity and avoid misunderstanding

between parties on issues of payment. This principle has not been compromised by any of the changes made in NEC4.

### Programme

New provisions which provide 'treated acceptance' of the Contractor's programme have been introduced in situations where the Project Manager does not respond to a programme issued by the Contractor for acceptance, or to a reminder. This is to unlock the impasse which otherwise prevails.

The requirement to show 'implemented compensation events' in the Contractor's programme has been removed. This is to avoid any potential misunderstanding that non-implemented compensation events are excluded (which is not the case). The requirement to show 'the order and timing of the operations which the Contractor plans to do in order to Provide the Works' remains. It is clear that this includes all works to be provided, whether introduced as compensation events or otherwise.

### Compensation event process – Short Contracts

The compensation event procedure in the Short Contracts has been simplified and shortened. Rather than wait for an instruction, the Contractor submits a quotation with the compensation event notice. The Client either accepts the quotation or makes its own assessment.

### Contract Data

Contract Data has been reformatted to make it easier to navigate and

complete. The new format lends itself better to production using computer software.

### Guidance Notes

The guidance notes for NEC4 contracts have been updated and consolidated. They are provided in four distinct volumes, dealing with procurement strategy, contract preparation, supplier selection and contract management. The contract preparation and contract management volumes sub-divide into separate books for each NEC contract.

### Summary

The criteria for changes introduced in NEC4 contracts are:

- To support the changing requirements of users
- Stimulate good project management
- Improve clarity and simplicity

This paper explains most of the main changes that have been made to the ECC, many of which apply to all contracts in the suite. There are a number of smaller drafting changes made throughout the contracts which do not significantly alter their intent, which are not listed in this paper.

The NEC4 suite of contracts now provides an even greater range of potential contract and procurement solutions for Clients who are undertaking projects and works programmes of all types and sizes.

Users who are familiar with NEC3 contracts will have no trouble moving to NEC4. The style, layout, terminology and key project management processes that run through in NEC contracts remain.

Many of the new features added to the existing contracts are optional, allowing flexibility in the procurement choice, for example it still remains possible to create very simple short contracts using NEC4.

It has been 12 years since NEC3 was published, and the publication of NEC4 responds to demand from users to continually improve the way that their projects and work programmes are delivered.



NEC4 supports the on-going drive for further collaboration and integration of teams, use of modern work methods, to avoid disputes, and to identify and manage both risk and opportunity for a successful outcome.

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