



CONSTRUCTION
INDUSTRY COUNCIL
建造業議會



REFERENCE MATERIALS

FREQUENTLY ASKED QUESTIONS ON NEC3 COLLABORATIVE CONTRACTS

Disclaimer

Whilst reasonable efforts have been made to ensure the accuracy of the information contained in this publication, the CIC nevertheless would encourage readers to seek appropriate independent advice from their professional advisers where possible and readers should not treat or rely on this publication as a substitute for such professional advice for taking any relevant actions.

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Preface

The Construction Industry Council (CIC) is committed to seeking continuous improvement in all aspects of the construction industry in Hong Kong. To achieve this aim, the CIC forms Committees, Task Forces and other forums to review specific areas of work with the intention of producing Alerts, Reference Materials, Guidelines and Codes of Conduct to assist participants in the industry to strive for excellence. The CIC appreciates that some improvements and practices can be implemented immediately whilst others may take more time to adjust. It is for this reason that four separate categories of publication have been adopted, the purposes of which are as follows:

Alerts	Reminders in the form of brief leaflets produced quickly to draw the immediate attention of relevant stakeholders the need to follow some good practices or to implement some preventative measures in relation to the industry.
Reference Materials	Reference Materials for adopting standards or methodologies in such ways that are generally regarded by the industry as good practices. The CIC recommends the adoption of these Reference Materials by industry stakeholders where appropriate.
Guidelines	The CIC expects all industry participants to adopt the commendations set out in such Guidelines and to adhere to such standards or procedures therein at all times. Industry participants are expected to be able to justify any course of action that deviates from those recommendations.
Codes of Conduct	Under the Construction Industry Council Ordinance (Cap 587), the CIC is tasked to formulate codes of conduct and enforce such codes. The Codes of Conduct issued by the CIC set out the principles that all relevant industry participants should follow. The CIC may take necessary actions to ensure compliance with the Codes.

If you have attempted to follow this publication, we do encourage you to share your feedback with us. Please take a moment to fill out the Feedback Form attached to this publication in order that we can further enhance it for the benefit of all concerned. With our joint efforts, we believe our construction industry will develop further and will continue to prosper for years to come.

Terminology

In this document, unless the context otherwise requires, the following abbreviations shall mean:

AC	Adjudicator's Contract
CIC	Construction Industry Council, Hong Kong
CIRC Report	Report on Construct for Excellence published by the Construction Industry Review Committee in 2001
ECC	Engineering and Construction Contract
ECS	Engineering and Construction Subcontract
ECSC	Engineering and Construction Short Contract
ECSS	Engineering and Construction Short Subcontract
FIDIC	International Federation of Consulting Engineers
FC	Framework Contract
ICE	Institution of Civil Engineers
JCT	Joint Contracts Tribunal
PPC	Project Partnering Contract
PSC	Professional Services Contract
PSSC	Professional Services Short Contract
SC	Supply Contract
SSC	Supply Short Contract
TSC	Term Service Contract
TSSC	Term Service Short Contract

Introduction

The Report on Construct for Excellence published by the Construction Industry Review Committee in 2001 (CIRC Report) made a number of recommendations on how current procurement practices can be improved to facilitate the delivery of construction projects on time, within budget and to the specified quality standards. In particular, it called for *"a change of culture and mindset among stakeholders in order to derive the full benefits of these improvement measures"*, and stated that *"key participants in a project, including the employer, the designer, the engineer, the main contractor, subcontractors and suppliers, need to work together more effectively and efficiently to complete the project in a satisfactory manner. Experience in Australia, the UK and elsewhere demonstrates that a partnering approach to construction will enable all participants in the project to work together as a team rather than in competition with each other"*.

The report also recommended that *"in the longer term, to provide a solid foundation for the project partnering process, further consideration should be given to the integration of a partnering approach into the contractual relationship by developing a new form of contract that is based on co-operation, client focus and commitment to best practice for application to local construction project"*.

In light of these recommendations, a publication entitled "Guidelines on Partnering" was issued by the CIC in 2010. The Guidelines provide an introduction to the different forms of partnering, including non-contractual partnering, contractual partnering and alliancing. The Guidelines also highlight certain issues to be considered when amending an existing form of construction contract to make it more partnering-friendly, as well as provide an introduction to the three standard forms of partnering contracts, namely the NEC3, JCT Constructing Excellence and PPC2000.

Of these standard forms, the NEC3 suite of contracts has been the subject of much attention recently. Designed as a collaborative form of contract, NEC3 has enjoyed a high profile particularly as a result of its use in the United Kingdom public sector projects. NEC3 has become the United Kingdom's Office of Government Commerce's contract of choice on construction projects and has been used on many high profile projects such as Heathrow Terminal 5 and the 2012 London Olympics. In other parts of

the world, including Asia, the uptake has not nearly been as advanced, with local or in-house standard form contracts still very much in use on domestic projects, and FIDIC (or hybrids thereof) dominating the international projects scene. However, in some Asian countries, this may be set to change. In Hong Kong, the Development Bureau has adopted the NEC3 form in some public works contracts since 2009. They cover contracts of different types and works categories with different payment options of the NEC3. In 2012, the Drainage Services Department completed a pilot run on NEC3 on a drainage project. The experience shared in Sections 2 and 3 are based on these projects experience in Hong Kong. The Hong Kong Government has committed to expanding the pilot on NEC3: it is understood that Works Departments will adopt NEC3 in all public works contracts as far as possible for tenders first gazetted in 2015 and 2016. There are also forums and seminars organised by Development Bureau, works departments and relevant organisations including the NEC Users' Group for sharing knowledge and experience in NEC3 with the trade practitioners. Training courses provided by local training providers are available to keep the industry practitioners informed of the relevant knowledge.

Purpose

Standard form construction contracts such as NEC3 serve a variety of useful functions, including defining the obligations of the parties, allocating risks and limiting liabilities, making clear the insurance requirements, setting out the contract administration procedures and providing a framework for dispute resolution. The more familiar both the Employers and Contractors are with a form of contract, the less likely (at least in theory) the scope for dispute as to each party's respective roles. NEC3 places a great focus on contract administration with the aim of reducing this risk even further.

Given the increasing use of NEC3 contracts in Hong Kong, it is important to inform construction practitioners of this relatively new form of contract to the Hong Kong market, and to share knowledge and experience on its practical application. The Task Force on NEC3 Collaborative Contracts formed under the Committee on Procurement and Subcontracting of the CIC have put together a collection of Frequently Asked Questions for reference. It is intended that this document be read as an adjunct to the CIC "Guidelines on Partnering" available at the CIC website (<http://www.hkcic.org>) which contains in Schedule 1 a useful summary of how NEC3 works.

Principally, this document is intended to assist:

- (i) construction practitioners, including Employers, Consultants, Contractors and Sub-contractors, in deciding whether or not to adopt NEC3 for their specific projects;
- (ii) construction practitioners, in seeking ways to manage their NEC3 contracts effectively; and
- (iii) construction practitioners using traditional forms of contract, non-contractual partnering contracts and other forms of partnering contracts such as PPC2000, JCT Constructing Excellence, to learn from the valuable experience gained in relation to NEC3 contract management practices.

This document is not intended to serve as a comprehensive guideline or commentary on the NEC3. Reference can be made to the NEC website (<http://www.neccontract.com>)

and relevant NEC publications (including the seven recently published "how to" guides) for further information. For practitioners who are new to the concept of contractual partnering or to NEC3, reference can also be made to the CIC "Guidelines on Partnering" referred to above. More detailed analyses of NEC3 and its operation can be found in a growing number of guides and textbooks.

Section 1 – What is NEC?

This Section provides a brief overview of NEC.

1.1. NEC3 provides a suite of contract forms. What are they?

NEC3, published by Thomas Telford, a wholly owned subsidiary of the U.K. Institution of Civil Engineers (ICE), consists of a suite of standard contract forms designed to meet the needs of various project arrangements.

The NEC has become increasingly popular since the first edition was published in 1993. The second edition, NEC2, was published in 1995. The third edition, NEC3, was first launched in June 2005 and slightly revised in 2013 together with additional supporting material.

References to NEC3 throughout this document are to the 3rd edition as revised in April 2013 unless otherwise indicated.

The 12 standard contract forms comprising the NEC3 suite of contracts are listed below:

- The Engineering and Construction Contract (ECC)
- The Engineering and Construction Subcontract (ECS)
- The Engineering and Construction Short Contract (ECSC)
- The Engineering and Construction Short Subcontract (ECSS)
- The Professional Services Contract (PSC)
- The Professional Services Short Contract (PSSC)
- The Term Service Contract (TSC)
- The Term Service Short Contract (TSSC)
- The Supply Contract (SC)

- The Supply Short Contract (SSC)
- The Framework Contract (FC)
- The Adjudicator's Contract (AC)

The NEC3 suite also includes a series of guidelines and flowcharts to provide guidance on how to use each of the contract forms listed above.

1.2. When should each of these contract forms be used?

- (i) The ECC is for the appointment of a Contractor for construction works using a wide range of procurement routes and including any level of design responsibility. It is suitable for capital works contracts.
- (ii) The ECS is for the appointment of a Sub-contractor where the Contractor has been appointed under the ECC. It may also be used to appoint a Sub-contractor under other forms of main contract, subject to reconciliation of defined terms – see [Question 3.7].
- (iii) The PSC is for the appointment of a consultant to provide professional services, such as project management, quantity surveying, architectural and engineering services.
- (iv) The TSC is for the appointment of a Contractor for a period of time to manage and provide a construction service. It is suitable for maintenance and facilities management contracts and other unit rate term contracts, e.g. investigation and operation.
- (v) The SC is for both local and international procurement of high-value goods and related services including design. The SC is not intended for use where the contract workscope includes significant installation or commissioning.
- (vi) The FC is for the appointment of one or more Suppliers/Contractors/Consultants to carry out construction works or to provide professional services on an "as instructed" basis over a set term. The work or

services instructed under a FC are best carried out under an NEC3 contract (e.g. ECC).

- (vii) The AC is for the appointment of an adjudicator under an NEC3 contract's dispute resolution provisions. It may also be used to appoint an adjudicator under other forms of contract.
- (viii) The ECSC, ECSS, PSSC, TSSC and SSC are the short form versions of ECC, ECS PSC, TSC and SC respectively. They are suitable for use on projects of relatively low complexity and risk.

1.3. What are the characteristics of the NEC3 contracts in general?

The NEC3 suite of contracts provides a legal framework as well as project management procedures which can be used on a wide variety of construction and engineering projects. The main characteristics of the NEC3 suite of contracts are flexibility and simple wording. One of NEC's main objectives is to act as a stimulus for good project management.

(i) Flexibility

The NEC3 contracts are flexible modular forms of contract. For example, the ECC contains core clauses and a choice of main Options regarding pricing, risk allocation and payment mechanisms (e.g. lump sum, target cost and cost-plus). The ECC is then coupled with dispute resolution Options and a series of secondary Options which can be used to tailor the contract to suit project specific requirements. Under the ECC, design responsibility can also rest wholly or in part with either party. The other NEC3 contracts have a similar flexible structure. [Question 1.5] lists out the main and secondary Options available in NEC3 contracts.

(ii) Simple wording and Clarity

The NEC3 suite of contracts, as distinct from other traditional contracts, is written in non-legal English, using concise sentences and with limited use of legal terminology. Guidance notes and flow charts

for each of the different contracts are provided to help explain the drafting intent of the clauses.

The contracts are organised in a user-friendly structure. There is minimal use of cross referencing between clauses and a clear numbering system which facilitates ease of use and helps users gain familiarity with the NEC3 content. It is worth bearing in mind in this regard that some clauses normally found in conditions of contract for construction projects (such as provision for liquidated and ascertained damages) are to be found in optional rather than core clause (see [Question 1.5]) or need to be included in the Works Information which contains the specification(s) and other material.

(iii) Stimulus for Good Project Management

Good project management requires Employers, Consultants, Contractors and Sub-contractors to work collaboratively. The NEC3 seeks to achieve this by setting out a clear division of the functions and responsibilities of the parties to promote accountability and transparency in their working relationship and collaborative working.

The ECC in particular is intended to operate as a project management tool rather than just a contract. To that end the ECC includes a detailed set of project management procedures which impose tight deadlines on both parties and require the effects of variations to be decided or agreed as work proceeds. Through requiring early notification of risks and a constant dialogue between the parties, the ECC adopts an approach that is intended to result in timely and clear decision making by the parties and encourages them to proactively identify risks and openly share with each other solutions to problems encountered. Use of target cost options can further align common objectives of time and cost saving.

1.4. What are the key differences between an NEC3 contract and a traditional contract used in Hong Kong?

The key differences between a NEC3 contract and a traditional contract can be summarised in terms of NEC's drafting philosophy, management approach, risk management approach and contractual practice.

(i) Drafting Philosophy

See the comments on the flexibility, simplicity and clarity of the NEC3 contracts in [Question 1.3] above.

(ii) Management Approach

Unlike the traditional contracts which are commonly used in Hong Kong, NEC3 embodies partnering concepts (e.g. mutual trust and co-operation (clause 10.1) and multi-party partnering (Option X12)) and collaborative management working towards common goals.

The contract form requires not only timely decision making by the parties but also promotes transparency in such decision making process. For example, it requires the Project Manager to state reasons for his decisions which is not common in other traditional form of contracts.

(iii) Risk Management Approach

Through the innovation of the early warning notification system, the risk register and the risk reduction meetings, NEC3 encourages proactive risk identification and problem solving in an open and collaborative manner.

(iv) Contractual Practice

There are a number of key differences between NEC3 and other traditional form of contracts. Terms such as provisional sum, prime cost sums, and contingency sums are not used in NEC3. Procedures for claiming additional payment and extension of time which are usually separate have been replaced by a consolidated compensation event procedure. Also the final account process has been replaced by a procedure for deciding on additional costs during the works. Users

should therefore ensure they are familiar with such changes prior to engaging in an NEC3 contract.

Generally, the NEC3 contracts focus more on project management than other forms traditionally used in Hong Kong. Compared to the traditional forms of contract, the NEC3 is more procedural and management intensive. Parties should be aware that training will ideally be required before the contracts can be used effectively.

1.5. What are the main and secondary options under ECC, TSC and PSC?

The ECC, TSC and PSC offer a range of main options to enable Employers to select a suitable pricing and risk strategy for the project in question. The contracts are coupled with dispute resolution options and a series of secondary options clauses, which can be used to tailor the contracts to suit project-specific requirements.

The main Options available in ECC, TSC and PSC are listed below:

ECC

Option A – Priced contract with activity schedule

Option B – Priced contract with bill of quantities

Option C – Target contract with activity schedule

Option D – Target contract with bill of quantities

Option E – Cost reimbursable contract

Option F – Management contract

TSC

Option A – Priced contract with price list

Option C – Target contract with price list

Option E – Cost reimbursable contract

PSC

Option A – Priced contract with activity schedule

Option C – Target contract

Option E – Time based contract

Option G – Term contract

The secondary options clauses available in ECC, TSC and PSC are:

Secondary Options*	ECC	TSC	PSC
X1 Price adjustment for inflation	√	√	√
X2 Changes in the law	√	√	√
X3 Multiple currencies	√	√	√
X4 Parent company guarantee	√	√	√
X5 Sectional Completion	√	-	√
X6 Bonus for early Completion	√	-	√
X7 Delay damages	√	-	√
X8 Collateral warranty agreements	-	-	√
X9 Transfer of rights	-	-	√
X10 Employer's Agent	-	-	√

Secondary Options*	ECC	TSC	PSC
X11 Termination by the Employer	-	-	√
X12 Partnering	√	√	√
X13 Performance bond	√	√	√
X14 Advanced payment to Contractor	√	-	-
X15 Limitation of Contractor's liability for design to reasonable skill & care	√	-	-
X16 Retention	√	-	-
X17 Low performance damages	√	√	-
X18 Limitation of liability	√	√	√
X19 Task Order	-	√	-
X20 Key performance indicators (not used with secondary Option X12)	√	√	√

* Note that Options specific to the United Kingdom relating to the United Kingdom legislation have not been listed above.

1.6. Who are the main parties to the ECC contract?

The main parties involved in the ECC are the Employer, Contractor, Project Manager and Supervisor. The Employer and the Contractor are the legal

parties to the contract. The Employer appoints both the Project Manager and the Supervisor to administer the contract on its behalf.

The Project Manager is usually appointed by the Employer at the feasibility stage. The Project Manager essentially manages the contract for the Employer with the intention of achieving the Employer's business objectives. The Project Manager has considerable authority: he can change the scope of works, instruct the Contractor, certify payments and generally apply his managerial and engineering judgment. He must however act strictly in accordance with the contract and as an independent certifier.

The Supervisor's role is to check whether the works are constructed in accordance with the contract. He oversees identification and rectification of defects, and is responsible for issuing the defects certificate.

Both the Project Manager and the Supervisor must act in a spirit of mutual trust and cooperation as must the Contractor. This obligation requires them to act reasonably and collaboratively and has potentially far-reaching consequences (see further below).

1.7. What are the key differences between the ECC and TSC?

The ECC is typically used between an Employer and a Contractor for engineering or construction works on a project (often referred to in Hong Kong as "capital works"). In contrast, the TSC is a form of contract by which a Contractor provides a service to an Employer for a period of time (a term) which is called the "service period" rather than carrying out construction work for a specific project. The TSC is suitable for engaging a Contractor to operate/maintain an existing asset for a period of time. The TSC is not normally used for major improvements of an existing asset (as this would normally constitute a new project for which the ECC would be more appropriate), but the TSC is occasionally used for minor betterment works.

Under the TSC, the Service Manager manages the contract on behalf of the Employer. Under the ECC, contract management functions are undertaken by the Project Manager and Supervisor.

The TSC has fewer Options than the ECC. In the TSC there are 3 main Options while there are 6 in the ECC. The main Options not used in the TSC are Option B – Priced Contract with Bill of Quantities, Option D – Target Contract with Bill of Quantities and Option F – Management Contract. There are 13 secondary Options in the TSC while there are 18 in the ECC. The secondary Options not available under the TSC relate to design and time matters which are not usually relevant to a maintenance contract (e.g. sectional Completion, early Completion and delay damages).

1.8. What factors should be considered in choosing main Options for a particular project?

The first decision that needs to be made under the NEC3 is which of the main Options is appropriate for the project. This decision will normally lie with the Employer and his professional team and may occasionally involve the input of potential Contractors.

The choice of a main option will depend on the preferred pricing mechanism and risk sharing approach, while the selection of secondary Options allows for a finer tailoring of the contract to the project at hand.

Examples of the typical factors which ought to be considered when choosing the most appropriate main Option include:

- Project objectives and constraints such as intended end use, site location and lead times for key elements;
- Ability of the Employer and the Contractor to manage and bear risk;
- Project complexity;
- Project value;
- Need for early completion;
- Need for cost certainty;
- Availability of suitable technical and managerial expertise and resources;

- Construction community knowledge and understanding;
- Ability to adequately define the work scope at the outset and/or completeness of any design;
- Experience of similar projects;
- Level of transparency and accountability required; and
- Ability to pre-qualify Contractors.

See pages 38 to 41 of the CIC "Guidelines on Partnering" for a more detailed discussion of matters relevant to selection of the main Options under NEC3.

It is not uncommon that the main Option selection exercise can generate more than one suitable Option. The Employer's project team would typically discuss any final recommendations thoroughly so as to ensure complete understanding and alignment to the agreed strategy and objectives.

Further points for consideration when choosing the main Options can also be found in the Guidance Notes published by the NEC.

Section 2 – Why choose NEC3?

2.1. Who are the early adopters of NEC, locally and internationally?

Since its first launch in the early 1990's, NEC has accumulated an extensive user base. It is in use in over 16 countries, and by far the biggest uptake has been in the United Kingdom and on public sector projects. Users include government departments, utility providers, healthcare facility providers, banks, road and rail providers, and airport operators.

In Hong Kong, early adopters of NEC include the Hong Kong Jockey Club, CLP Power Hong Kong Limited, the Hong Kong Academy School and various government departments, including the Drainage Services Department, the Highways Department, the Architectural Services Department, the Water Supplies Department and the Civil and Engineering Development Department. MTR Corporation Limited is now trialling NEC3 on one of its smaller projects.

2.2. What are the expected benefits of using NEC3 in Hong Kong?

The NEC suite of contracts was drafted in response to perceived industry shortcomings in the United Kingdom which were similar to the problems identified in Hong Kong in the CIRC Report published in 2001. See the CIC "Guidelines on Partnering" for detailed discussion of this issue. The NEC3 contracts aim to address such shortcomings through the introduction of modern project management techniques and the resolution of claims and disputes during the project and through encouraging a fundamental change in attitudes between the various project participants.

The anticipated benefits of using NEC3 in Hong Kong include:

- (i) A change of mindset leading to a more collaborative and co-operative attitude from project participants at all levels leading to

better focus and more efficient project outcomes. A totally new form of contract is also seen as a catalyst for culture change;

- (ii) Stronger commercial drivers to deliver common goals through the use of pricing options such as target cost with pain/gain sharing;
- (iii) An increased focus on the proper planning of projects with early contractor involvement leading to early problem recognition and mitigation;
- (iv) An emphasis on speedy decision making, to assist project progress;
- (v) More equitable risk sharing geared to the parties' own circumstances (rather than risk transfer for its own sake) leading to better management of risk;
- (vi) Early agreement of variations thereby reducing delay and uncertainty through the final account process;
- (vii) Speedy and neutral dispute resolution, thereby reducing the potential for time consuming and expensive disputes; and
- (viii) Faster and safer construction better quality with fewer defects and improved financial outcome.

2.3. What are the key considerations in deciding whether to adopt an ‘all NEC’ approach for a project, or on selected packages?

There are real benefits in standardising contract terms, procedures and standards across all of the project participants, and in ensuring that there is an alignment of the objectives of the various parties. Conflicting conditions, procedures and terminology have the potential to hinder efficient execution of the project works and can generate disputes. The London Olympic Delivery Authority for example chose to use the whole suite of NEC3 contracts for procuring all fixed assets and infrastructure for the 2012 London Olympics. More immediately, it would be prudent to use the ECS with the ECC to ensure back to back terms.

2.4. What are the challenges experienced in delivering an NEC3 project?

To realise the benefits indicated in the answer to [Question 2.2], there is a need to invest extra time and effort and therefore cost during the implementation phase of an NEC3 project. Some of the typical challenges experienced both at the implementation phase and throughout an NEC3 project are:

- (i) Getting buy-in from key internal stakeholders;
- (ii) For first time users, selecting the right project as trial or pilot, and the most appropriate NEC3 form of contract;
- (iii) Ensuring that any modifications made to the NEC3 form preserve the fundamental characteristics of NEC3 and that any modifications are consistent with the terms and concepts used in NEC3 and its collaborative ethos rather than just replicating traditional forms of contract and administrative procedures;
- (iv) Communicating with the supply market to get them prepared for tendering;
- (v) Training for staff including Employers, Contractors, Sub-Contractors and Consultants;
- (vi) Ensuring the proper enforcement of process during the construction phase;
- (vii) Engaging experienced NEC3 practitioners throughout the process with regular review and, if necessary, seeking support from top management and taking corrective actions;
- (viii) Implementing necessary administrative resources in managing NEC3 specific features; and
- (ix) Keeping up with NEC3's demanding programme requirements in relation to notification, submission and assessment processes. In particular, time-driven procedures for making and assessing claims for additional payment and extension of time (compensation events)

must be complied with and this is likely to demand significant project management resource for both parties.

2.5. What are the critical factors in the successful implementation of an NEC3 contract?

The critical factors for a successful implementation of the NEC3 include:

- (i) Establishing a willingness to change existing practices with clear targets of benefits to be realised;
- (ii) Top management commitment, and a strong well-trained on-site team;
- (iii) Selecting the right team with key personnel having good people skills who are receptive to collaborative relationships;
- (iv) Experienced NEC3 practitioner support throughout whole process of selecting, drafting and performing the NEC3 contracts;
- (v) Continuous efforts to build and maintain collaborative culture within the project team including representatives of the Employer, Contractor, Sub-Contractor and Consultant;
- (vi) Regularly reviewing progress and if necessary seeking support from top management and taking corrective actions, including change of key personnel; and
- (vii) Early engagement of internal stakeholders responsible for governance in establishing control procedures.

2.6. Can I use my standard terms and conditions and modify them to incorporate the spirit of collaboration and management framework of NEC3?

CIC supports any form of collaborative working and contractual or non-contractual partnering that will drive mutual trust and cooperation, joint risk management and an enhanced project management framework.

Employers may customize the extent and pace of change to suit their own circumstances.

When choosing contractual partnering, an Employer can either create or modify its own form of contract, or select a standard form of contract, such as NEC3, that is specifically written for a collaborative or partnering relationship. While modifying an Employer's current form of contract has the advantage of starting with a form that is familiar to internal staff and the usual Contractors, particular attention should be paid to ensuring the terms and conditions will support collaborative behaviours of both parties that the Employer now wants and alerting those concerned to the implications of the changes made.

Like any form of contract, the key to success is to invest appropriate resources in adopting or creating an internally-consistent contract, changing people's behaviour and adhering to progress management processes. This is particularly important when committing to collaborative working, the challenges of which are frequently underestimated, in terms of training, resources, cultural development and building trust among the parties.

Should an Employer wish to incorporate some features of NEC3 into his own standard form of contract, great care and effort should be taken to ensure that all relevant clauses are changed to form a coherent set of terms and conditions and that the supporting commercial and management frameworks are in place, whilst respecting any copyright restrictions applicable to the NEC3 documents.

2.7. The NEC3 includes target cost as a procurement option for projects. Why would an Employer choose target cost over the conventional approach, e.g. lump sum contract?

If the scope of the works on a project can be properly defined, contract documents well prepared, contract risks appropriately identified and allocated, and proper tendering procedures utilised, a lump sum contract can provide demonstrable value for money.

However, at the other end of the scale, in situations where the work scope cannot be so precisely defined, or where time restrictions mean that comprehensive contract documents cannot be prepared in time for works to commence; or where particular risks cannot fully or meaningfully be quantified, or where "lowest cost" is not as important as other project success factors such as timely completion, it may often be appropriate to consider one of the alternative payment mechanisms, such as the alternatives offered by the NEC3.

A target cost contract is essentially a prime cost reimbursement contract with an additional pain/gain share apportionment, in a pre-agreed ratio, of the difference between the final cost and an initial "target" estimate of outturn cost. The target cost form of procurement is the most popular form of NEC3 ECC contract in use since it offers Employers competitive tenders of site management costs and profit, an open-book financial arrangement, and a joint financial incentive for post-contract costs to be minimised. One of the benefits of target cost is that it enables work to start if required prior to detailed design and production of bills of quantities and the formal tendering process. If properly managed this early start should facilitate earlier completion.

Under a target cost contract, Employers are able to benefit from competitive tender prices whilst having the option of completing design and construction in parallel. They are also able to mitigate the effect of risk-premiums included by tenderers for unquantifiable risks. In addition, Employers and Contractors may also be able to benefit from savings in project cost where a gain-share is realised. Risks which are compensable will adjust the target. Contractor risks will become part of pain share or gain share. Unquantifiable risks which would have been allowed for but do not materialize are not paid.

2.8 To date, NEC3 experience is mainly in public sector and infrastructure projects. Are the stated benefits of the NEC3 also applicable to the private sector?

The benefits indicated in [Question 2.2] above regarding cost, time and quality are equally applicable to both public and private sectors. However, the NEC3 is a contract which requires some upfront investment and training for these benefits to be realised. It requires a high standard of management and the right level of resources, so it tends to attract government bodies and private organisations who have the capital, time and incentive (in terms of the volume of projects) to invest in getting the full benefits offered by NEC3.

There are increasing examples of NEC3 use outside government. In Hong Kong this includes use by the Hong Kong Jockey Club, CLP Power Hong Kong Limited, the Hong Kong Academy School and MTR. As more NEC3 projects are procured by the private sector, the more efficient and proficient the industry will become at using the standard forms, and the more benefits that will accrue to industry participants as a whole.

Section 3 – How to use the NEC3?

General

3.1. I am new to NEC3. How should I get started?

A good place for up to date, free introductory information is the NEC3 website, www.neccontract.com. The NEC3 also publishes a set of detailed Guidance Notes and "how to" guides. The Guidance Notes explain the evolution, ethos and flexibility of the contracts. They also explain how the base NEC3 contracts implement the main Options and the various secondary Options to create contracts and a procurement route appropriate for each project. Regardless of which main and secondary Options are selected, the contract will retain its core focus on collaboration and the key obligation for the parties to work in a 'spirit of mutual trust and co-operation'.

Apart from being written in plain English, the NEC3 is short compared to most standard form contracts. It is therefore a contract which can (and should) be read in full at an early stage as this is the best way of gaining familiarity and understanding while bearing in mind that the core clauses are not comprehensive. All the NEC3 ECC procurement routes use the same basic core clauses with limited additional clauses applying for each Option. Those new to the form may wish to read first the various Options of the ECC contract which best align with the procurement route they are most familiar with. This will probably be the easiest way to identify and absorb the different style and approach of NEC3.

A variety of service providers offer regular training workshops, seminars and conferences on NEC3 in Hong Kong. For those seeking a detailed text and commentary on the form, reference can be made to publications on NEC3 such as those mentioned above.

3.2. Simple English and non-legal language are used in NEC3 contracts with the objective of clarity and simplicity. Is there any danger of ambiguity in the interpretation of this contract and a "legal vacuum" in the absence of legal precedents?

There have been very few reported court cases on NEC forms of contract (as opposed to unreported arbitration and adjudication awards) so there is certainly an argument that the lack of judicial consideration may cause problems of interpretation. Indeed, in one of the few reported cases an English judge expressed some concerns over the style of wording but he also noted that the style has its adherents within the industry.

However, it should be remembered that even the longer, well established contract forms generate difficult issues of interpretation and the case law is not always as extensive or clear as is often thought. For example, there have been many cases over the years grappling with issues such as ownership of float (a point addressed expressly in NEC3) and concurrent delay. General principles of contract interpretation will apply to the NEC3 as they do to other contract forms, and reported cases where contract language is similar

if not identical can be used as guide (although words used in one contract do not always mean the same when used in a different context).

Hopefully, the accessible style of the NEC3 will make it easier for those responsible for operating live contracts on a day to day basis to understand and discharge their obligations. Where parties embrace the collaborative spirit of NEC3 then the plain language should assist them in working together and reduce the chances of disputes arising in the first place. There is however a risk that a failure to comply with tight contract deadlines will result in a dispute, often with unpredictable consequences.

Early Warning and Risk Registers

3.3. How does the early warning system under NEC3 work to manage risks?

A key feature of ECC is that both the Contractor and Project Manager are required to notify the other in writing of any matter or risk they become aware of which could adversely affect time, cost or quality of the project. Upon this notification, either the Contractor or Project Manager may require the other party to attend a risk reduction meeting at which they are required to cooperate in identifying actions to avoid or mitigate the matter or risk in question. The Project Manager is required to record all these risks on a "Risk Register" (which also includes risks identified in the Contract Data prior to the commencement of the contract). The purpose of the Risk Register is to record both the identified risks and the actions to be taken to address them.

This procedure is designed to encourage proactive, open engagement and collaboration to identify and jointly manage risks for the parties' mutual benefit. It is important for parties to be aware that this is a management procedure and is not intended to be used to allocate responsibilities or determine entitlements to additional time and money. Claims for additional time and money must be addressed separately through the compensation event provisions. The fact that the risk register is a management procedure and not a contractual tool for the allocation of responsibility can cause

confusion to those not experienced in the use of the NEC3. Parties should be made aware of this so that they make proper use of the compensation event procedure.

Proper engagement with the early warning procedure is a key factor in the success of an NEC3 project and one of the main ways in which mutual benefits can be derived. For new NEC3 users, this is one of the more challenging features of NEC.

3.4. How often should I notify an early warning of time or cost overrun?

The short answer is: as often as a risk arises. This process can also be used to inform one another of positive opportunities that may arise from time to time.

Though the early warning process is completely separate from the compensation event process, the Contractor needs to be aware that if he fails to notify an early warning, and the Project Manager is of the view that it is one which an experienced contractor could have given, the Project Manager will, when assessing the subsequent compensation event, evaluate the event as if the Contractor "had given an early warning" (core clause 63.5). This would obviously have a detrimental effect on any compensation event claim.

Subcontracts

3.5. Will the adoption of NEC3 prejudice the existing pre-tender naming of specialist Sub-contractors on government projects?

NEC3 does not create any restriction on naming specialist Sub-contractors or specialist Suppliers, or including a list of "approved" specialist Sub-contractors or Suppliers, or requiring specialist Sub-contractors or Suppliers to be on a stated Government/Employer list, even when target cost or cost reimbursement contracts are selected. However, some target cost contracts with pain/gain share arrangements might require that specialist Sub-contractors are selected also through competitive tendering with a view to securing the most advantageous terms and hence maximising

the chance of a gain share. Such particular requirements for projects can be introduced through additional clauses (known as "Z" clauses) or in appropriate cases by including relevant provisions or requirements in the NEC3 Works Information (which typically includes the specifications). In any case, care should be taken when naming such specialists as the Employer may carry further risks than just stating the quality of work required, leaving the Contractor to decide how best to achieve such standards.

3.6. **Does the Project Manager have a say in the selection of Sub-contractors?**

This is a common issue for conventional contracts and for some NEC3 options. The usual practice to manage this conflict is that the Project Manager has a contractual right to accept (or not accept) a Sub-contractor. Under the ECC terms and conditions the Contractor must obtain the Project Manager's acceptance of both the proposed Sub-contractor and the subcontract terms (unless an NEC3 subcontract is used). The Project Manager is only entitled to not accept a Sub-contractor if he considers that the Sub-contractor will not be able to perform adequately to allow the Contractor to provide the Works as required under the main contract or if there is no obligation on the Sub-contractor to act in a spirit of mutual trust and co-operation.

Of course, deciding whether a Sub-contractor can perform adequately requires the application of subjective judgment. As noted in Section 1 above, the rationale for using NEC3 is to enhance good project management and promote co-operation and reduce confrontation through a spirit of mutual trust and co-operation among the contract parties. Conflicting objectives between the Contractor and Project Manager in the selection of Sub-contractors should be weighed and balanced against elements such as track record, technical competence, resources and cost benefits for the project. Adoption of a collaborative spirit to respect the interests of all parties is the key success factor to reach a collaborative decision serving interests in common and is a key requirement of NEC3.

Performance incentives, can be introduced to encourage the Contractor to achieve project objectives of the Employer, including engaging good Sub-contractors. NEC3 secondary Option X20 allows for setting Key Performance Indicators and incentives.

In the case of target cost contracts, if the Employer wants to play a part in the selection and procurement of Sub-contractors, the Employer should consider incorporating relevant procurement procedures such as a “Subcontract Management Plan” in the Works Information.

3.7. Should NEC3 ECS (Subcontract) be used where the Main Contract is not an NEC3 ECC?

It is envisaged that the ECS be used for the appointment of a Sub-contractor where the Contractor has been appointed under the ECC. Although in practice the ECS is not always used, its use for Sub-contractors is a way to promote partnering and spirit of mutual trust and cooperation down the contractual chain to lower tier Sub-contractors and is strongly recommended. If the main contractor has not been appointed under the ECC, then should the ECS also not be used for the appointed Sub-contractor? Users should be very cautious about using the ECS in that situation, and seek advice from experienced NEC practitioners. Subject to that advice, and any consequent revisions being made to the proposed contract terms agreed between the parties, in principle there is no bar in those circumstances to using the ECS.

Avoiding pitfalls in use of the NEC3

3.8. Explain how to overcome the following pitfalls:

(a) With an open-book and collaborative approach, there are governance risks including the perception of collusion.

Governance risks including perceptions of collusion can be reduced by:

- (i) Reviewing the records kept and procedures adopted by the Contractor for preparing the monthly payment applications.
- (ii) Reviewing the procedures adopted by the Project Manager in assessing the Contractor's payment applications.
- (iii) Engaging a third party to assess whether both the Project Manager and the Contractor have followed the procedures related to payment applications and assessment respectively and to audit the amount certified by the Project Manager on a regular basis.

The CIC "Guidelines on Partnering" has included useful guidelines from ICAC on partnering which are relevant to NEC3 contracts: see pages 16 to 17 of the Guidelines.

Apart from that, the ICAC has devised a number of administrative measures for users to consider if there is any concern of corruption risks, users may refer to the ICAC website (<http://www.icac.org.hk>) for more details.

(b) Some Employers add 'Z' clauses (i.e. bespoke additional clauses), which some may view as contrary to the purpose of NEC3.

One of the NEC3 characteristics is that its use should stimulate collaboration, co-operation and good management of the relationship between the parties. Where consideration is given to adding clauses from conventional contracts they should be reviewed carefully to ensure they are necessary and to ensure their compatibility with NEC3. Use of adversarial and subjective terms in particular should be avoided.

(c) Some differences in definitions of terms compared to conventional contracts cause confusion and could incur risks and commercial consequences for project delivery.

The use of definitions or terms from conventional contracts should be reviewed to ensure their consistency with NEC3 terminology and

avoided where possible. If any definitions or terms under conventional contracts are included in NEC3 which result in ambiguities and inconsistencies then the Project Manager is required to resolve such ambiguities and inconsistencies by issuing an instruction. NEC3 training/briefing sessions ideally should be held before tendering to enhance the Employer's and tenderers' understanding of the differences between NEC3 and other contract forms and to promote understanding of NEC3 structure and philosophy.

(d) The time frame for giving a reply to a communication under NEC3 is very tight. What could be done to better ensure compliance with the time frame?

The intention of the timescales is to promote good project management with a proactive approach. Hence, it is recommended that these should be followed whenever possible and NEC3 training/briefing sessions held before the project commences. However, under certain circumstances which make it difficult for the parties to abide by the timescales, the Project Manager and the Contractor can agree to extend most time-frames. Indeed, if this is foreseeable, then parties should seek to amend the standard timescales when preparing contract documents though too relaxed a timetable may undermine the key NEC3 principle of rapid and effective decision-making.

3.9. Will NEC3 demand greater quantity surveying or contract administration input to deal with new features such as early warning, risk management and, compensation events as well as open book, gain/pain sharing?

In short, yes at least, during the construction phase. The NEC3 contract requires real-time project management and decision making. The contract is very procedural and management intensive and generally requires all changes to time and financial entitlements from compensation events to be assessed contemporaneously with the events arising and preferably before change is instructed. If NEC3 is operated correctly then entitlements are

agreed during the life of the project and not some months or even years after project completion. NEC3 requires greater levels of resource and supervision from both the Employer and the Contractor with a broad range of skills (e.g. quantity surveyors and planners familiar with or trained in NEC3). However, such increased management resources are generally considered to be offset by (i) higher chances of improved project outcomes (ii) greatly reduced final account work periods after completion and (iii) reducing the risk and expense of long-running disputes.

Mutual Trust and Co-operation

3.10. NEC3 is aimed at promoting co-operation and reducing confrontation through the spirit of mutual trust and co-operation. Are these enforceable obligations?

Clause 10.1 of the ECC is the very first clause in the contract and provides that:

"The Employer, the Contractor, the Project Manager and the Supervisor shall act as stated in this contract and in a spirit of mutual trust and co-operation".

The English courts have not yet considered the exact legal implications of this obligation under an NEC3 contract, but have recently made clear that the scope of any good faith obligation will very much depend on the context. For example in the recent case of *Mid Essex Hospital Services NHS Trust v Compass Group UK and Ireland Ltd (t/a Medirest)* [2013] EWCA Civ 200, the Court of Appeal looked at the extent to which a good faith type obligation may operate within the ambit of contract law. The Court of Appeal took the opportunity to reiterate that no general doctrine of good faith exists in English contract law before interpreting very narrowly the scope of an express good faith obligation.

In another Court of Appeal decision in Northern Ireland, *Northern Ireland Housing Executive v Healthy Buildings (Ireland) Limited* [2014] NICA 27, the Court of Appeal applied Clause 10.1 to the language of Clause 61.1 in deciding that the employer was bound to give a written notification of the

compensation event under the circumstances. Although the judgment did not shed any light as to how and to what extent Clause 10.1 was applied to this effect, it appears that Clause 10.1 will be applied in appropriate circumstances to aid interpretation of all duties and obligations under NEC3.

In Hong Kong, it is likely that courts, arbitrators and (potentially) adjudicators¹ will treat the obligation to act in a spirit of mutual trust and co-operation as one which binds the parties although the nature and extent of the obligation are hard to define due to the lack of NEC3 related case authorities. The obligation is most likely to be relevant when considering how parties behave in relation to their other duties and entitlements under the contract. For example, a Project Manager who rejected a programme or a quotation for a compensation event on the basis of an inconsequential failure to provide information precisely as required by the contract might well be held not to have acted in a spirit of mutual trust and co-operation thereby creating a compensation event. Similarly, a Contractor might be held to have failed to submit a valid quotation under the compensation event mechanism if it did not follow the contract requirements and prepared an unreasonable quotation with self interest in mind.

NEC3 also embodies co-operation in an enforceable way through various mandatory notices and other procedures which require the parties to communicate frequently and consider problems jointly within time limits. These include: (i) the early warning procedure to identify and jointly manage risks; (ii) a requirement to regularly review, update and agree programme; and (iii) obligations to promptly notify and seek agreement of the consequences of compensation events which may entitle the Contractor to more time or money.

- 3.11. **Are there any provisions in NEC3 which require the Project Manager to act as an independent contract administrator exercising impartiality and fairness at all times? What is the resolution mechanism for the Contractors/Sub-contractors to raise objection or appeal on any act or omission committed by the Project Manager?**

¹See [Question 3.11] and [Question 3.26] on the issue of adjudication in Hong Kong under NEC3.

The ECC forms do not provide expressly that the Project Manager must act independently and fairly at all times. However, the position at common law is that where a third party acts as certifier it is generally implied into the contract between the Employer and the Contractor that the third party must act in a fair and unbiased manner. Also, Employers must not interfere with the certifier's duties.

It was held in the English case of *Costain v Bechtel 2005*² that this principle applies to Project Managers under the NEC. This means that Project Managers must act fairly and impartially when making assessments or decisions and Employers must not interfere. There are, however, some functions performed by the Project Manager, where acting purely as an agent for the Employer, will not be under a duty to act fairly or impartially – for example, if the Employer decides to change or suspend the works the Project Manager would have to issue the relevant instructions at the Employer's request. However, the Project Manager would then have to act fairly and impartially in assessing and agreeing any additional entitlements to time or money.

NEC3 provides a rapid right to adjudicate in the event of a dispute over an action by the Project Manager. However, the Employer may replace the standard NEC3 dispute resolution provisions and so it is necessary to carefully check what rights the parties have to bring challenges. For example, in some cases standard provisions have been replaced to provide for the Project Manager to first decide a dispute (similar to an Engineer's decision) followed by mediation and/or adjudication, with arbitration as the final mechanism deferred until after Completion. Such an approach may be counter to the problem-solving ethos of NEC3. Another approach has been to provide for rapid reference of disputes through a party/party escalation process using a Dispute Resolution Advisor who can recommend particular dispute resolution options but in the absence of agreement, discrete disputes can be referred directly to a short form arbitration procedure. This latter procedure provides a more rapid (although not immediate) right to seek a

²[2005] EWCH 2018

determination of a dispute relating to an action or inaction of the Project Manager.

3.12. Is there any restriction on parties amending the NEC3?

The general position is that parties are free to agree whatever contractual terms are acceptable to them. There is no restriction on parties amending and adding to the standard NEC3 conditions. In this regard NEC3 is no different to other standard forms of contract, although it expressly recognises that the parties may wish to include their own bespoke conditions (i.e. 'Z' clauses) as noted below.

It is often said that if NEC3 is to be used it should not be amended as that is contrary to the whole ethos of a contract which is drafted in simple language and which has mutual trust, co-operation and collaboration at its heart. Where Employers select NEC3 they usually wish to adopt the fundamentals of the NEC3 approach including: the obligation to act in a spirit of mutual trust and co-operation, the early warning procedure and prompt notification and valuation of compensation events. However, the NEC3 recognises that additional conditions of contract may be necessary and provides expressly for them to be set out as "Z" clauses by the parties. Clauses which are typically added relate to project specific requirements such as insurance, confidentiality and copyright.

When amendments are to be made to NEC3 (or a party is reviewing an amended contract) it is important that great care is taken to ensure that they are consistent with the operation and terminology of NEC3. Given the unique nature of these the risk of inconsistent, conflicting and ultimately ineffective amendment is arguably greater with NEC3 particularly where parties try to "bolt on" their normal contract amendments which have been created for use with more traditional forms.

Behaviour and Partnering

3.13. Is it necessary to adopt secondary Option X12 (Partnering) to form the partnering relationship?

The standard NEC3 form is often regarded as a partnering-type contract given its focus on collaborative management and procedures and the core obligation for the parties to act in a spirit of mutual trust and co-operation.

However, Option X12 is to be used for multi-contract partnering, e.g. Employer-Contractor-Sub-contractor; and therefore it is not applicable to the two parties to a single NEC3 contract in isolation. It is possible for parties to adopt their own preferred approaches to partnering through the use of "Z" clauses (i.e. bespoke additional clauses) or separate partnering charters which do not modify the underlying NEC3 obligations.

For further detail on the use of Option X12 see page 37 to 38 of the CIC" Guidelines on Partnering".

- 3.14. **Do you consider that regular risk reduction meetings between the Project Manager, the Supervisor and the Contractor are useful to promote mindset changes and proactive behaviour and working relationships among project parties?**

Approached in the correct collaborative spirit and with appropriate leadership all types of meetings should contribute to a trusting relationship, provided that the parties joining the meetings are willing to work with each other to resolve problems/project risks.

Regular risk reduction meetings can help parties to monitor the risk items and follow-up actions. If parties work together to solve problems in a timely fashion and in turn achieve cost and time savings, then it would definitely help in enhancing the working relationship.

Under the ECC both parties are required and entitled to notify early warnings of risks to time, cost or quality and to convene "risk reduction meetings". Having a regular forum to address risks could fit with this procedure and, if frequent enough, could avoid the administrative burden of organising ad-hoc meetings when early warnings are notified.

- 3.15. **What is the best way to direct or change the mindset of a contracting party who is a first time user of NEC3? How can partnering behaviour**

best be established and the performance of the project team monitored during project implementation?

Top management commitment, delegation of necessary authorities, and providing appropriate training and opportunities for teams to engage are all essential.

The mindset and behaviour for people running a successful NEC3 project should be open-minded, willing to listen to alternative ideas, proactive in sorting out issues, respecting the other party and treating them as a partner and with good communication and teamwork skills. Parties should ensure that senior personnel assigned to NEC3 projects adopt these approaches. Similarly, Employers should require tenderers to demonstrate their partnering and collaborative working capabilities during the pre-qualification and tender assessment stages.

Training should include both behavioural training on mindset, and practical training on NEC3 characteristics. It is important that those who work on an NEC3 project appreciate that there will be more notices and procedures and that this is not necessarily evidence of parties being "contractual", but is actually aimed at good management and the avoidance of unexpected cost overruns and disputes.

It is also a good idea for project teams to recognise their achievements and identify where their collaborative approach has brought mutual benefits.

3.16. How can Employers and Project Managers adjust to and accept the high level of notifications and warnings required by NEC3 and accept them as good management not confrontation?

This is a matter of behavioural and cultural change. Training, joint workshops and experience on live projects are all going to be "key" to achieving this.

It is also fundamentally important that Project Managers and Employers appreciate that the reason NEC3 requires early warnings and prompt notifications is to enable early management of risks and issues that could

otherwise lead to greater problems and more entrenched disputes at a later date. More effort in the short term leads to fewer problems in the long term.

Contractors have a part to play in ensuring that all early warnings and notifications are submitted in a collaborative spirit and that genuine efforts are made to manage and reduce risks and claims, and to minimise unsubstantiated and/or doubtful claims. This is the best way of demonstrating that the relatively high level of warnings and notifications will actually deliver better outcomes and savings over the course of a contract.

Payment

3.17. Are there any guidelines for assessing interim payment under ECC main Option C or D (target contract)?

General guidance is available from the NEC3 Guidance Notes. Options C and D provide for payment of Defined Cost plus Fee. Difficult issues can arise as to whether specific types of cost fall within the meaning of Defined Cost or are to be treated as excluded Disallowed Cost. Critical to success on Option C and D contracts is to ensure that parties collaborate in agreeing the systems and records which will be used to evidence, validate and agree Defined Cost, and the audit procedures thereof.

3.18. If work scope is uncertain, how does the NEC3 deal with it? Is it by including provisional sums, prime cost sums, prime cost items or contingency sums?

There are no provisional sums, prime cost sums, prime cost items or contingency sums in NEC3. NEC3 seeks to address uncertainty through the compensation event mechanism or through allocation of specific risks to the Employer or the Contractor.

Under Options C and D (target contracts), the Target is adjusted from time to time to take into account compensation events whereas the Contractor is paid on the basis of Defined Cost plus fee. In essence, the financial implication of uncertainty in work scope will be reflected in the pain/gain

share that is dependent upon the difference between the Target and Defined Cost plus fee.

3.19. How do we prepare a good estimate of the target cost at tender stage?

In order to enhance the accuracy of the estimation of the target cost at tender stage, the following steps are recommended to be taken by either or both of the Employer and the Contractor (as appropriate):

- (i) The preparation, and inclusion in the tender documents, by the Employer's team of detailed, accurate and unambiguous requirements and site and interfaces data.
- (ii) Thorough studying of the tender documents so as to have a full picture of the scope of works and the contractual responsibilities of the Contractor.
- (iii) Preparation of a comprehensive schedule of work items showing detailed descriptions of sub-divided work items so as to facilitate payment application and assessment processes.
- (iv) Pricing the schedule of works based on the current market prices of the works by referring to quotations from potential Sub-contractors and/or Suppliers.
- (v) Some work items may be priced by combining the labour, material and plant costs. All cost components should be based on the current market prices.
- (vi) Allowance for inflation should be included unless Option X1 (Price adjustment for inflation) is used.
- (vii) The Contractor should have a clear understanding of the implications of various fee percentages before providing them as part of the Tender.

Although the Contractor is reimbursed Defined Cost expended for work done during the performance of the works under an NEC3 target contract, at completion the Contractor has to bear a share (a 'pain share') of the Defined

Cost if the Price for Work Done to Date exceeds the total Target Price in accordance with pre-agreed share percentages in the Contract Data. Likewise, if the Price for Work Done to Date comes out less than the total Target Price, the Contractor receives a share of the saving. The risk of unexpectedly large pain/gain share will be minimised if the tendered target price has been prepared as accurately as possible including careful assessment of both the positive and negative risks.

Programming

3.20. What is the purpose of the NEC3's programming requirements? Are they necessary, especially for medium or smaller contracts?

Programming is a very important element in NEC3. Both the initial programme and its revisions have to be submitted to the Project Manager for acceptance within the timeframe specified in the Contract Data. The Accepted Programme not only enables all the parties to monitor the works progress, but also provides a basis for assessing the time impacts of compensation events. Submission of programme is not a condition precedent to works execution by the Contractor. In order to provide motivation to the Contractor to submit a programme within the period specified in the contract, one quarter of payments due will be retained until a programme showing what the contract requires has been submitted.

Much more detailed requirements for programme are listed in NEC3 as compared to other standard forms of contract, including elements like float, time risk allowance, procedures set out in the contract and principal equipment and other resources planned to be used. Although the drafters realised that these requirements impose a burden at least on the Contractor, it was considered that the required information and programming practices are essential for better project management and to help avoid and resolve disputes arising out of time related issues. Therefore, they are still considered necessary even for medium or small scale contracts in order to achieve the objectives of NEC3.

3.21. What if the Contractor is unable to provide a programme fully compliant with the NEC3?

Parties entering into an ECC contract should ensure that both the Project Manager and the Contractor have sufficient, and sufficiently competent, planning resources commensurate with the scale and complexity of the project: in general, both parties should allow for deploying a higher level of planning resources during the tender and works periods than for a traditionally-run contract.

In order to better facilitate compliant programmes, the Project Manager and the Contractor can hold discussions during the preparation of the programmes. This will provide an opportunity for both parties to contribute and address any issues encountered whilst providing better understanding on how the programme will be produced. This in turn will promote effective communication and collaboration between the parties as intended by NEC3 and accelerate the process of acceptance.

The form and content of the required programmes, which should as far as possible be commensurate with the scale and complexity of the works, can be set out in the Works Information for better understanding and clarity. If NEC3 programming provisions are not followed, however, its procedures will not work effectively.

3.22. Does time risk allowance in the programme belong to the Contractor once the programme is accepted?

Yes. See the NEC3 Guidance Notes regarding Clause 31.2.

Early Warning and Compensation Events

3.23. What if the programme is not accepted a long time after the project commencement and it affects the agreement of compensation events?

This should only happen if the Contractor does not produce a compliant programme, or if the Project Manager does not follow the acceptance process in the contract. The Project Manager has only limited justifications for not

accepting programme as stipulated in clause 31.3. If both the Contractor and the Project Manager have capable programming resources, communicate with each other proactively and act in a spirit of mutual trust and co-operation then the circumstances in which a programme is not accepted for a long period should not arise.

In a case where there is no Accepted Programme, the Project Manager is allowed to make his own assessment of a compensation event forming his own view on programme (although this could be reviewed through the dispute resolution process in real time). The Contractor will then be requested to show the Project Manager's assessments on any revised programmes. This arrangement may significantly affect the Contractor's interest, because his quotation may not be considered and his opportunity to reach agreement with the Project Manager on the impact of an event before executing the work associated with the compensation event is thus removed. Therefore in practice, NEC3 provides incentives to the Contractor to submit a programme which complies with the requirements of NEC3.

3.24. What will be the effect if the Project Manager issues an instruction but fails then to notify a corresponding compensation event?

Where the Project Manager issues instructions, he is obliged to notify the corresponding compensation events himself and cannot rely on a failure to do so to deny unreasonably the Contractor's entitlement to compensation. Notwithstanding the absence of the Project Manager's notification of a compensation event, the Contractor may itself notify the compensation event to the Project Manager under clause 61.3 under ECC.

3.25. What will be the effect if the Contractor fails to notify when they become aware of a compensation event?

Assuming it is a type of compensation event which the Contractor is obliged under the Contract to notify (and this should be checked in each case), he would lose his entitlement to compensation if he does not notify the Project Manager about it within eight weeks: Clause 61.3.

Dispute Resolution

3.26. The NEC3 requires disputes in the first instance to be referred to adjudication. Can mediation be used? Is a Dispute Resolution Advisor required?

Both of the available options under NEC3 for dispute resolution use adjudication as the first step. However in Hong Kong, these options are not commonly adopted and employers tend to use bespoke dispute resolution clauses.

The standard NEC3 contract does not provide for mandatory mediation or the use of Dispute Resolution Advisors, they would only be available options if both parties agreed via Z clauses or when the occasion arises. However, using voluntary mediation to resolve disputes would be entirely consistent with the NEC3 ethos of mutual trust and cooperation. In the vast majority of cases mediation would provide the greatest opportunity of achieving a collaborative outcome to a dispute. Parties should therefore always consider mediation.

3.27. Will NEC3 help to reduce disputes?

When an NEC3 contract is operated correctly it should reduce the occurrence and/or size of disputes; and in particular reduce the probability of a large "final account type" claim dealt with by arbitration or the courts. This is because:

- (i) Parties are obliged to, and should, work in a spirit of mutual trust and co-operation;
- (ii) Risks should be identified and discussed and managed by the parties at an early stage so that their impact is managed and where possible reduced;
- (iii) Where compensation events arise which entitle the Contractor to additional time and/or money they should be notified and assessed rapidly, generally by agreement of the Contractor's quotations;

- (iv) NEC3 does not provide for (a) a separate final account process except for assessment of the Contractor's Share under the Option C and Option D target contracts or (b) a final review process for time; if compensation events are agreed as intended as the project progresses there should be fewer issues to resolve at the end of the project; and
- (v) The rapid procedure for addressing compensation events as they arise means disputes should be identified earlier with the potential for them to be resolved quickly and on a case by case basis rather than being rolled up into a larger compensation event.

It is apparent that where an NEC3 contract is not operated correctly, disputes can arise. For example, there will be challenges in following the NEC3's prospective approach to forecasting the effects of compensation events. Additionally, difficulties can arise where:

- (i) There is no Accepted Programme;
- (ii) Parties fail to follow the correct approach to notification and assessment of compensation events;
- (iii) Parties allow multiple, overlapping compensation events to build up to be reviewed at a later date;
- (iv) Parties are trying to work out entitlements retrospectively in the knowledge of what actually happened when under NEC3 the entitlements should have been assessed using forecasts before the effects of an event were known; and/or
- (v) The Project Manager or the Contractor does not have sufficient knowledge, experience or authority to conclude all matters.

In order to address these challenges, both the Contractor and the Project Manager must have the resources to properly administer the contract. Though not of course a typical project the successful delivery of the 2012 London Olympics using hundreds of NEC3 contracts and with only a very small number of disputes arising show what is possible. If NEC3 processes are properly managed with sufficient resources and a genuinely

collaborative approach the objectives of NEC3 can be realised in practice.

Feedback Form

Reference Materials - Frequently Asked Questions on NEC3 Collaborative Contracts

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(Please put a "✓" in the appropriate box.)

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