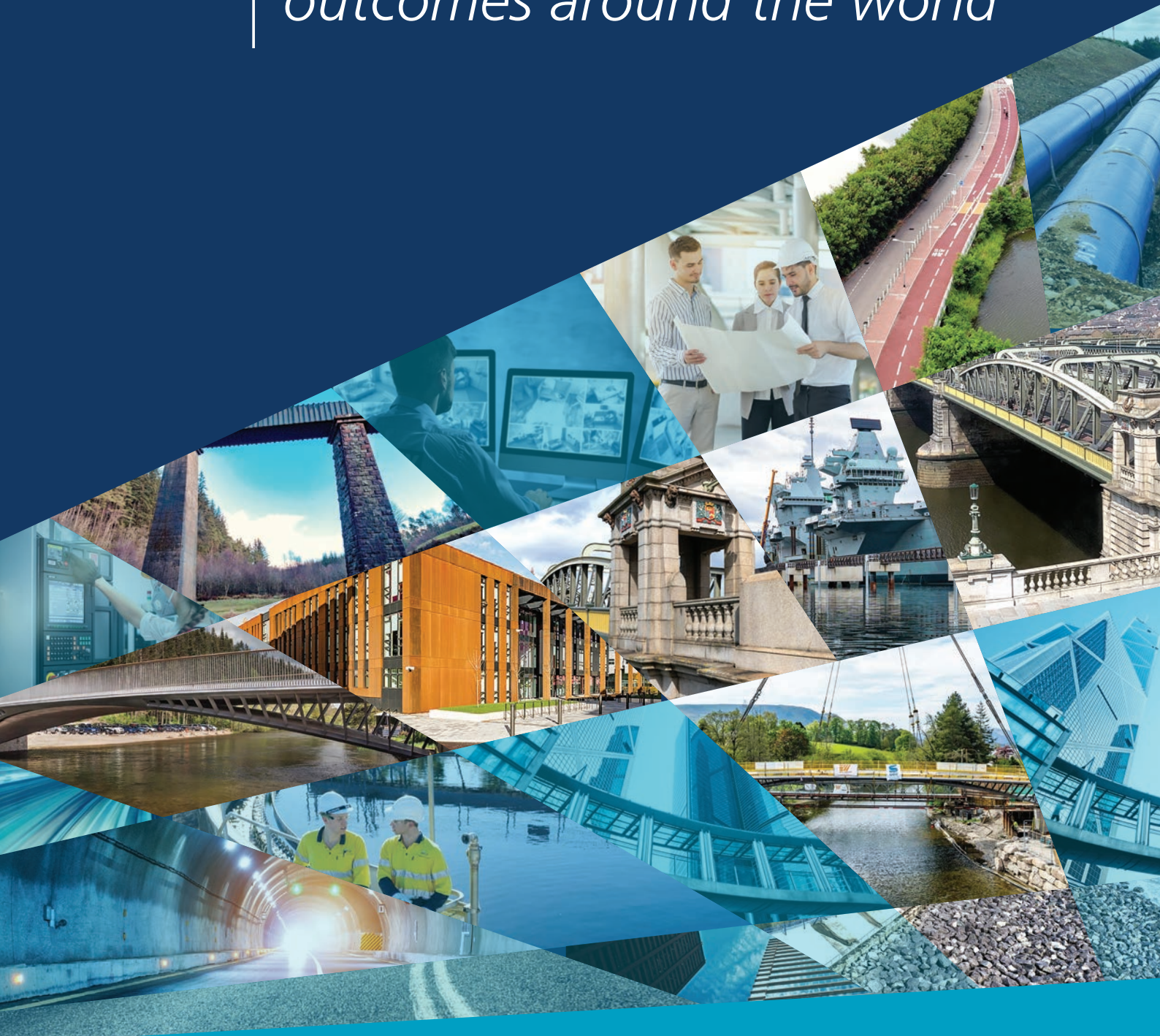


works | services | supply



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“The NEC suite of contracts...has linked the projects, people and processes together to create the correct environment for successful delivery. NEC4 embraces the digital changes that are happening in the construction industry, especially around BIM, which I believe will be central to creating a step change in performance. Whilst looking forward it also builds on the fundamentals required for an effective contract. The use of NEC4 on public sector projects will help to deliver the Government Construction Strategy as we seek to improve central government's capability as a construction client to deliver further savings.”

Tony Meggs, Former Chief Executive, Infrastructure and Projects Authority, UK



Crossrail was one of the largest infrastructure projects in Europe. It involved building 42km of new tunnels, 10 new stations and improving 30 more. NEC contracts were used extensively to deliver the project.

## What is NEC4?

This document introduces the NEC4 suite of procurement contracts for the global purchasing of works, services and supplies. It outlines the commercial benefits the contracts can bring through the promotion of a more open, collaborative and efficient relationship with the supply chain.

NEC4 is the fourth evolution of the NEC suite of procurement contracts that were originally launched in the UK in 1993.

The contracts' origins were in the engineering and construction sector, but they have evolved to be suitable for buying all types and sizes of works, services and supplies in any sector – from billion-dollar capital schemes to parts and people.

NEC4 can be used for anything from long-term alliances, frameworks and design-build-operate contracts to short-term consultancy, maintenance and supply agreements. Pricing can be lump-sum, target cost, remeasurement or cost-reimbursable, and payments made by activity, quantity or actual cost plus fee.

### NEC around the World

The NEC has become the default suite of contracts for public-sector works, services and supplies in the UK, Hong Kong, South Africa and New Zealand. NEC

Contracts have been endorsed by the Government Construction Board, Cabinet Office, UK and by the Development Bureau, HKSAR Government. According to Hong Kong Development Bureau's Construction 2.0 publication "the NEC is a contract form that promotes a more collaborative way of working, along with clarity, simplicity, prescribed project management... albeit based around a clear contractual structure."

They have also been successfully used in Australia, China, France, Germany, Ireland, the Netherlands, North Africa, Peru, the Philippines, UAE and the USA, and are also increasingly used in private sector procurement. They delivered the venues and facilities for London 2012 Olympic and Paralympic Games and the Lima 2019 Pan American and Parapan American Games in Peru. They have been used to buy tunnel boring machines from France, nuclear waste containers from Germany and the world's first vertical cable car from the Netherlands. They are used for design, construction and maintenance of hospitals in Hong Kong, libraries and community centres in New Zealand, universities in South Africa and every major transport infrastructure project carried out in Britain the past 20 years. Recently, NEC4 contracts have been selected to design, build and operate the world's largest radio telescope observatory at sites in Australia and South Africa, which will begin early operations by 2025.

“The decision to use NEC4 contracts was based on a desire to use a form of contract that was well recognised, as well as being highly regarded by the supply chain. NEC4 reflected our approach of putting long-term, collaborative relationships at the heart of the delivery strategy for the East Coast main line. For the first time, we were also keen to include a design, build and maintain contract and the NEC4 DBO allows us to do this.”

Philip Bennett, Commercial Director, Network Rail

## What makes NEC4 different?

NEC's mission from the outset has been, 'to provide clarity, flexibility and stimulate good management'. No other contract suite aspires to improve the procurement and delivery process, rather than just facilitate it.

All NEC4 contracts are designed around the following three principles.

- They stimulate good management of the relationship between the two parties to the contract and, therefore, of the work involved in the contract.
- They can be used in a diverse range of commercial situations, for a wide variety of types of work and in any location around the world.
- They are clear, simple and written in plain English, using language and a structure which is straightforward and easily understood.

Uniquely, one of the foundation clauses of every NEC4 contract states the parties are to act, 'in a spirit of mutual trust and co-operation.' This differentiates them from traditional contracts, which tend to follow a more adversarial, 'us and them' approach.

To many users, the 'jewel in the crown' of NEC4 contracts is the 'early warning' process. If either party becomes aware of any matter which could affect time, cost or quality, they are required to notify the other party immediately. This is promptly discussed at an early warning meeting to decide how best to mitigate the risk and aiming to decrease the time taken to resolve the issue.

If there are changes to the amount of work the supplier has to do, there are clearly defined processes to handle changes in costs and time called 'compensation events'. The contracts also provide a clear and precise process for evaluating the cost and time implications of compensation events, which include events arising from client scope changes, and the contract sets out the process to determine the time and cost effects, within a set timescale.

The result is that the programme and budget are continually updated and agreed as changes and events happen. There should be no surprises at the end of an NEC4 Contract.

All works and supply contracts also allow for early contractor/supplier involvement.



Heathrow Airport Limited signed a contract worth £812 million for the new Terminal 2 at Heathrow. It covers detailed design and construction of the main 180,000m<sup>2</sup> Terminal 2A building and ten aircraft stands boosting passenger capacity from 2 to 20 million a year.

## How much does NEC4 save?

Given every procurement process and project is unique, it is difficult to do back-to-back financial comparisons between NEC4 and other contracts. But wherever NEC has been trialled in the world it has generally been adopted for further use and, in many cases, become the default contract suite.

Where you will save money using NEC4 is when changes happen, unexpected or otherwise. In accordance with NEC4 processes, each event will be collaboratively, efficiently and quickly dealt with to ensure minimum impact on the overall cost and programme. It will not be left to a potentially expensive and time-consuming negotiation and possible dispute at the end of the contract.

For example, multiple quotations can be requested from the supplier to deal with the change in terms of different time and/or cost scenarios. This allows the client to select whichever quotation best suits their business requirements. It also provides the client with a better forecast of the final completion date and final cost payable, enabling actions to be taken early where budget or time constraints are critical.

NEC users also save on legal fees. NEC4 contracts work best when they have not been amended—though they

do of course provide the option for amendment to suit specific clients- or project-related requirements, such as confidentiality or security.

If a dispute should arise during the contract that cannot be resolved through the normal collaborative contract processes, all NEC4 contracts provide for cost-effective resolution through adjudication or a dispute avoidance board. Only a handful of NEC contracts have ever ended up in court over the past 25 years.



NEC4 Engineering and Construction Contracts were used to refurbish an iconic set of three bridges over the River Medway estuary in Rochester, south-east England. The £12 million project included strengthening, repairing, painting, waterproofing and resurfacing the 140 m long steel bridge decks as well as replacing parapets and expansion joints and repairing the cast-iron, masonry and concrete piers.

“The use of the NEC family of contracts ensured that most problems were solved when they occurred, rather than ending up in the courts at the end of the process.”

Sir John Armitt, Chairman of the London 2012 Olympic Delivery Authority



## What are the other benefits?

The main benefits of using NEC4 contracts for an organisation's needs can be summarised as follows:

- They offer a complete set of tried-and-tested, highly adaptable standard-form contracts for buying works, services and supplies anywhere in the world. They include shorter, simpler contracts for smaller, lower-risk purchases, plus back-to-back consultancy and sub-contract forms for the supply chain. Alliance, framework and design-build-operate forms exist for larger capital projects and programmes.
- All contracts require parties to work in a collaborative way under an obligation to act 'in a spirit of 'mutual trust and co-operation'. This means both parties are obliged to notify each other as soon as they become aware of something which may affect the cost, programme or quality, and then work together to minimise the impact. Any additional cost or time requirements are agreed as the contract progresses so there are no surprises at the end.
- All contracts are in plain, simple, unambiguous English. They provide clear and concise guidance on the communications required between the parties and the processes for dealing with change. There is complete transparency throughout the contract on risks, costs and programme.
- They offer clients complete flexibility on pricing and payment, with a full range of lump-sum, open-book, target-cost and cost-reimbursable arrangements. There are various options for incentivising suppliers, including pain/gain sharing arrangements and early completion bonuses.
- NEC4 Contracts offer a sharing of risk to each party involved in the project. Risks are collectively shared, managed and resolved through the cooperation of all participants. The risk allocation is in the best interest of the project.

*“We adopted NEC on our capital works programme in 2008 to promote a culture change from the traditional ‘them and us’ approach to one of collaboration. Over 6 years we were able to deliver our overall portfolio of projects within 6% of the control budget.”*

Spencer Hodgson, Capital Projects Manager, University of the Witwatersrand, South Africa

## Which NEC4 contract?

The principal NEC4 contracts, short contracts and subcontracts can be broadly grouped into works, services and supply as shown below. The choice of form depends on the procurement complexity and level of risk.

### Works:

The main works contracts are the NEC4 Engineering and Construction Contract (ECC), the Engineering and Construction Subcontract (ECS), the Engineering and Construction Short Contract (ECSC) and the Engineering and Construction Short Subcontract (ECSS).

They are suitable for purchases such as the design, construction, refurbishment and decommissioning of buildings, structures, process plants and infrastructure – including everything from houses, schools, hospitals and leisure facilities to infrastructure for water, energy, transport, industry and waste. In addition, the NEC4 Alliance Contract (ALC) is designed for integrated delivery teams; and the NEC4 Design Build Operate (DBO) contract is for works contracts that extend into the operational phase.

### Services:

The main service contracts are the NEC4 Term Service Contract (TSC), the NEC4 Term Service Subcontract (TSS), the NEC4 Term Service Short Contract (TSSC), the NEC4 Professional Service Contract (PSC), the NEC Professional Service Subcontract (PSS) and the NEC4 Professional Service Short Contract (PSSC). They are suitable for purchasing professional services such as engineering, architectural, project management and consultancy works. They also cover composite services such as asset management and maintenance, as well as facilities management such as cleaning, catering, decorating, security, maintenance and data processing.

### Facilities Management:

NEC, the construction industry's leading procurement contract suite, and the Institute of Workplace and Facilities Management (IWFM) have launched the new suite of NEC4 Facilities Management Contracts. The new suite of Facilities Management contracts has been developed to support a range of approaches including “total FM” / integrated services FM contracts, managing contractor FM contracts, and single and / or multiple supplier FM contracts. The new contracts and their supporting documents are a great step to enable the facilities management sector to offer more integrated and consistent procurement strategies, add value to the supply chain and develop stronger, more collaborative, relationships and ways of working.

*“The NEC Supply Contract has worked well, even with the requirement to have two currencies - Euros for the crane supply as delivered from Germany and Pound Sterling for demolition of the existing cranes. Furthermore, the absence of references to any UK-specific legislation within the main clauses made it easier to fit the contract into Guernsey legislation than some other families of contracts.”*

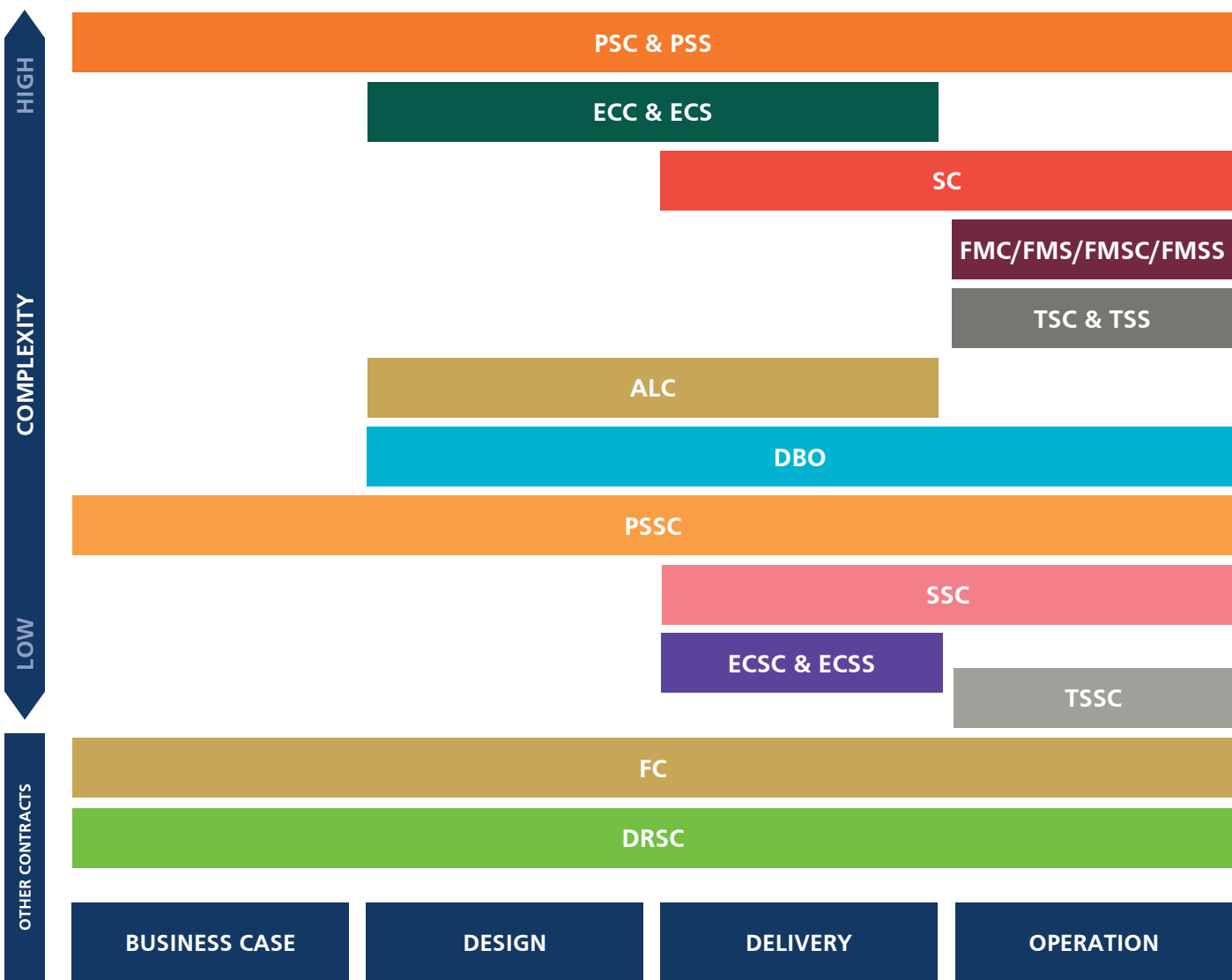
David Parish, Head of Project Services,  
Guernsey Government

Supply:

The main supply contracts are the NEC4 Supply Contract (SC) and the NEC4 Supply Short Contract (SSC). These are for the supply of high-value goods and associated services such as transformers, generators, rolling stock, cranes, gantries and complex plant. They are also suitable for lower-risk items such as building materials and products, stationery, personal protective equipment and parts.

Suitable for any project:

The NEC4 Framework Contract (FC) is intended for use in the appointment of one or more suppliers to carry out work or provide a service or supply goods on an 'as instructed' basis over a set term. In addition, the NEC4 Dispute Resolution Service Contract (DRSC) is for engaging an adjudicator or a member of a dispute resolution board, as provided for in all NEC4 contracts. The DRSC can be used with any works, services or supply projects.



Secondary Option X29

NEC secondary Option X29 was produced to help the industry achieve net zero emissions and sustainability targets in the creation and operation of built assets. It followed a period of consultation to seek industry feedback on the Option prior to final publication. NEC published the final version of the secondary Option X29 on climate change for all NEC4 main and main subcontract forms in July 2022.

Achieving net-zero emissions and sustainable outcomes is principally a technical issue that can be addressed in the scope. However, there are limitations in this approach as it relies on users including the required content in the Scope and linking this to the contractual processes in the contract. Introducing additional conditions of contract was seen as beneficial in driving

- the reduction of the impact of the works on climate change by:
- Signposting to the issues to be covered in the Scope / raising its profile.
  - Incentivising performance against climate change targets.
  - Adding to existing processes or creating new processes that support the reduction of the impact of the works, service and supply on climate change.

The Option enables clients to state their climate change requirements in the scope and provides a new climate change plan for contractors to set out their strategy for achieving the requirements. X29 also includes a performance table, enabling clients to set financial incentives to encourage contractors to achieve the stated performance targets. Clients can also use the Option X29 performance table in NEC4 ECC contracts to include positive and negative incentives for the contractor to reduce the whole-life cost.

“ Combatting climate change has to be considered at every point in the life of an asset, and needs the engagement of clients and all key members of the supply chain. To support this a version of secondary Option X29 has been produced for all NEC4 main and main subcontract forms. ”

Ian Heaphy, NEC4 Project Board Member



## What resources are needed?

The client representative on an NEC4 works, service or supply contract is defined as the ‘project manager’, ‘service manager’ or ‘supply manager’ respectively. They can be an individual or an organisation, and they should be involved from the outset.

The manager should have a comprehensive understanding NEC4 contract management processes as their role is vital to the success of the contract. It is their job to work closely and collaboratively with the supplier to ensure the best possible outcome for the client.

NEC has been running accreditation programmes for NEC managers since 2013 and there now over 5,000 NEC accredited project managers, service managers and supervisors worldwide.

The contract manager also needs to ensure that the chosen supplier is fully aware of the NEC4 approach to collaborative working. All contracts work better when all involved parties understand their roles and responsibilities and NEC can offer training and advice to support users throughout all phases of a project.

“We... arranged a series of practical training workshops at the start of the contract and then on an annual basis to promote the NEC partnering spirit with contracting parties.”

Luk Wai-hung, Deputy Project Manager, Water Services Department, Hong Kong

“We feel the scope and flexibility within the NEC suite fits our purposes and objectives in order to produce quality workmanship at best value for our customers. In addition, planned maintenance of our existing 3800 homes – such as kitchen, bathroom and roof replacements – will also now be undertaken under the NEC4 Term Service Contract and NEC4 Term Service Short Contracts.”

Adrian Johnson, Managing Director of Commercial Services, Catrefi Conwy Housing Association (largest social landlord in Wales)

## What support is available?

NEC offers a comprehensive range of practice notes, webinars, training, events and books to provide further support to users. For more information on any of the below go to [neccontract.com](https://www.neccontract.com)

**Practice notes:** A series of NEC practice notes are freely available from the NEC website to provide advice on application of the contracts in the light of new regulations or emerging technologies.



**Webinars:** NEC’s webinars provide access to the latest NEC knowledge wherever users are in the world for no fee. Attendees can ask speakers and consultants questions, and recordings of the live events are available on the NEC website to watch back at a later date.



**Training:** NEC’s training courses are delivered by experts who have an in-depth knowledge of NEC contracts and their use across industry. The training courses offered are suitable for those new to NEC4. Delivered internationally, NEC training courses are available in a selection of formats to suit the learning and development preferences of both UK-based and international clients. Options include classroom, online and in-house training programmes. The NEC Online Academy enables you to gain a comprehensive and clear understanding of the NEC3 and NEC4 suites at any time, anywhere in the world, at your own pace.



**Events:** NEC’s events provide users with expert advice and support, networking opportunities, and insights into the latest NEC developments. The programme includes seminars, workshops, and breakfast briefings which are held across the UK, Asia Pacific, Australasia and Africa.



**Books:** NEC offers a range of manuals and books which have been written to help users maximise the benefits of the contracts. Written by expert authors, they provide practical day-to-day tips, essential advice, detailed overviews of the contracts and clauses, contract strategies and implementation of good practice.



**User Guides:** Guidance documentation is available for various stages of the procurement lifecycle, dealing with procurement strategy, contract preparation, supplier selection and contract management.



**Users’ Group:** NEC provides a comprehensive range of support services and operates regional users’ groups to help improve access to these services. Membership is designed to provide support to users around the world NEC offers global membership levels for individual, corporate, and affiliate organisations. Members can access NEC support and benefit from a wide range of events, products, and tailored consultancy services.



**NEC Community App:** The NEC Contracts Community App provides an online space which brings NEC users, communities and content together in a private interactive platform. It offers online themed discussion forums for members to join and connect with each other to share expertise and best practice in their particular sector or market. There are also resource hubs which offers a diverse range of content, including papers, videos and podcasts relating to a particular NEC theme or topic. The app is free to download onto mobile devices from the Apple App Store and the Google Play Store. The desktop version can be reached at [community.neccontract.com](https://community.neccontract.com)



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