

# Guide on the NEC4 Engineering and Construction Contract

December 2025



Singapore Academy of Law  
Law Reform Committee

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## Preface

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The New Engineering Contract 4 (**NEC4**) engineering and construction contract (**NEC4 ECC**) was developed by the Institution of Civil Engineers of the United Kingdom (**UK**). The NEC4 ECC is an internationally recognised collaborative form of contract. Unlike traditional forms of construction contracts that may lead to adversarial behaviour between project participants, the NEC4 ECC is designed to promote collaborative working, efficient project management and clear communication between parties. The NEC4 ECC requires parties to act in the spirit of mutual trust and co-operation and instils early warning mechanisms and proactive management of risks and claims.

The NEC4 ECC has been successfully adopted in various jurisdictions, such as the UK and Hong Kong Special Administrative Region. The NEC4 ECC has been, and continues to be, adopted in both public and private sector projects in Singapore.

To promote awareness and the continued adoption of the NEC4 ECC in Singapore, this Guide has been developed to addresses typical questions raised by project participants, as well as commercial and legal teams in a simple FAQ format.

## A. How is the NEC4 ECC structured?

1. An NEC4 ECC typically comprises of the following documents:

(a) Form of Agreement:

The Form of Agreement identifies the contracting parties and the documents that form the contract. It is signed by the contracting parties.

(b) Contract Data:

The Contract Data contain information specific to the project, such as identifying the Project Manager, the Supervisor, the site, the governing law, commencement and completion dates, and information relating to timelines, payment and limitation of liability.

(c) Conditions of Contract:

The Conditions of Contract comprise of:

- (i) Core clauses;
- (ii) Option A to F clauses, which are the available pricing options;
- (iii) Option W clauses, which are the available dispute resolution options;
- (iv) Secondary Option X clauses, which are the additional responsibilities that may be adopted based on the parties' and the project's requirements; and
- (v) Option Z clauses, which are intended to amend or supplement the pricing, dispute resolution and Option X clauses. The spirit of NEC4 ECC is not to substantially deviate from the Core and Option X clauses.

(d) Pricing:

The Pricing will depend on which of Options A to F is chosen. Where the pricing is based on an activity schedule, a breakdown of the contract price based on each activity is provided. Where the pricing is based on a bill of quantities, the rates for the items of work are provided.

(e) Scope:

The Scope contains the technical information, specifications and drawings describing the works to be carried out, as well as design and safety

requirements.

(f) Site Information:

The Site Information sets out the condition of the site, including information relating to ground conditions as well as under and above ground services and utilities.

**B. What are the different forms of contract available under the NEC suite of contracts?**

2. The NEC suite of contract forms includes:
  - (a) NEC4 ECC (long form and short form); form of sub-contract to be used in conjunction with NEC4 ECC; and, NEC4 ECC based on the alliancing model;
  - (b) Form of contract for the provision of professional services, facilities management and term service (long form, short form and form of sub-contract); and
  - (c) Contract for supply (long form and short form).
3. The NEC has also published user guides to provide guidance on the preparation and compilation of the contract forms as well as the management of those forms during the implementation phase.

**C. Does the NEC4 ECC comply with Singapore law?**

4. The NEC4 ECC is a standard-form contract originally developed in the UK. It is not drafted specifically to comply with Singapore law. It can, however, be adapted for use in Singapore.
5. The Building and Construction Authority of Singapore (**BCA**) has developed W, Y(SG) and Z clauses to support the implementation of NEC4 ECC in Singapore. The W clauses are dispute resolution options reflecting local dispute resolution practices, while the Z clauses address public sector procurement rules and industry norms, such as Progressive Wage Mark requirements.<sup>1</sup> Clause W4.2 contains an arbitration clause for arbitrations governed by Singapore law and administered by the Singapore International Arbitration Centre.

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<sup>1</sup> Building and Construction Authority, “W and Z Clauses for Use with NEC4 Engineering and Construction Contract (ECC) in Singapore”, 23 January 2025, at para 4.

6. The Y(SG) clauses are designed to align NEC4 ECC with Singapore laws, making them suitable for use in local projects. These optional clauses help ensure that NEC4 ECC comply with key legislation such as the Contracts (Rights of Third Parties) Act 2001, the Insolvency, Restructuring and Dissolution Act 2018, and the Building and Construction Industry Security of Payment Act 2004 (**SOP Act**).
7. The Y clauses align NEC4's payment provisions with the timelines under the SOP Act for submitting payment claims and responses. Provisions relating to suspension of work and set-off under the SOP Act are also addressed.

#### **D. Has the NEC4 ECC been used for Singapore projects?**

8. Yes, several public sector agencies have initiated pilot projects using NEC4 ECC, including the Housing & Development Board, JTC Corporation and the Land Transport Authority.<sup>2</sup>
9. In the private sector, CapitaLand Development and its partners, including Nakano Singapore, have adopted the NEC4 ECC for a project in the Science Park. This initiative marks one of the first private sector applications of NEC4 ECC in Singapore, aiming to enhance collaboration and project delivery.<sup>3</sup>

#### **E. What are the key advantages and disadvantages in using the NEC4 ECC over a Singapore standard form?**

10. The NEC4 ECC is not directly comparable to Singapore standard forms of construction contract due to differences in their core purposes and underlying principles. There are differences in key areas such as risk allocation, collaboration, and project flexibility between the NEC4 ECC and the Singapore forms. An appreciation of the differences will allow project participants to make more informed decisions and select the contract that best fits their projects' specific needs and context.
11. Using the Public Sector Standard Conditions of Contract (**PSSCOC**) as comparative reference, the potential advantages in adopting the NEC4 ECC include the following:

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<sup>2</sup> Building and Construction Authority, “[Launch of NEC4 Contract for Construction and Engineering Projects in Singapore](#)”, 29 April 2024, at para 2.

<sup>3</sup> [Speech by Minister Desmond Lee at the Singapore Contractors Association Limited \(SCAL\) Annual Dinner](#), 2 October 2024.

Feature	NEC4 Form	PSSCOC
<b>Flexibility and Adaptability</b>	<ul style="list-style-type: none"> <li>i. <b>Multiple Pricing Options:</b> Various contract pricing options such as lump sum,<sup>4</sup> remeasurement,<sup>5</sup> cost reimbursable,<sup>6</sup> target,<sup>7</sup> and management<sup>8</sup> contracts. These options allow for tailored solutions depending on a project's nature, complexity, and risk-sharing preferences.<sup>9</sup></li> <li>ii. <b>Flexible Risk Allocation:</b> Option X clauses offer flexibility in selecting various risk allocations where the parties may choose who bears the risks, such as change in law<sup>10</sup> or price inflation.<sup>11</sup></li> </ul>	<ul style="list-style-type: none"> <li>i. <b>Limited Pricing Options:</b> Limited contract pricing options, i.e. lump sum<sup>12</sup> and remeasurement.<sup>13</sup></li> <li>ii. <b>Fixed Risk Allocation:</b> Risk allocation is fixed and users are not offered options. Changes to the pre-determined risk allocation have to be made by way of specific amendments.</li> </ul>

<sup>4</sup> New Engineering Contract 4 Form (**NEC4 Form**) Option A.

<sup>5</sup> NEC4 Form Option B.

<sup>6</sup> NEC4 Form Option E.

<sup>7</sup> NEC4 Form Options C and D.

<sup>8</sup> NEC4 Form Option F.

<sup>9</sup> Kelvin Hughes, *NEC4: 100 Questions and Answers*, Routledge, 10 May 2019, at 10.

<sup>10</sup> NEC4 Form Option X2.

<sup>11</sup> NEC4 Form Option X1.

<sup>12</sup> Public Sector Standard Conditions of Contract for Construction Works (**PSSCOC for Construction Works**), clause 1.1(e) and Public Sector Standard Conditions of Contract for Design and Build (**PSSCOC for Design and Build**), clause 1.1(f).

<sup>13</sup> PSSCOC for Construction Works, Option Module A.

Feature	NEC4 Form	PSSCOC
<b>Clarity and Simplicity</b>	<p>i. <b>Clear and Accessible Language:</b> Written in ordinary language and uses the present tense, making it straightforward and accessible for all parties involved.</p>	<p><b>Less Simple Language:</b> Written in a more legalistic style. While this achieves precision, it does not prioritise the same level of simplicity in its language.</p>
<b>Project and Claim Management</b>	<p><b>More Collaborative and Comprehensive Project and Claim Management:</b></p> <p>i. <b>Collaborative Mindset:</b> Fosters a collaborative approach by encouraging the parties to work together in the spirit of mutual trust and cooperation.<sup>14</sup> This mindset promotes partnership-style management and helps reduce adversarial behaviour, ensuring a more cooperative and effective project environment.</p> <p>ii. <b>Effective Communication:</b> Establishes a clear communication procedure with defined timescales,<sup>15</sup> ensuring that all parties communicate in writing<sup>16</sup> and adopt a communication system.<sup>17</sup> It mandates responses</p>	<p><b>Less Collaborative and Detailed Project and Claim Management:</b></p> <p>i. <b>No Mutual Trust and Cooperation Obligation:</b> Does not, as a default, have any collaboration requirements, but these can be added via PSSCOC Option Modules C and E.<sup>33</sup></p> <p>ii. <b>Unclear Timescale:</b> Unclear timeline for some actions, such as the determination by the Superintending Officer (<b>SO</b>) on the Contractor's notice for extension of time which can be rendered "<i>within a reasonable time</i>".<sup>34</sup> However, with the incorporation of PSSCOC Option Modules C and E, this issue would be addressed in C8.0 and E8.0 which sets out a specific period for such an action.</p>

<sup>14</sup> NEC4 Form, clauses 10.1 and 10.2.

<sup>15</sup> One example is Clause 31.3 of NEC4 Form which states that the Project Manager must notify the acceptance of the programme within two weeks.

<sup>16</sup> NEC4 Form, Clause 13.1.

<sup>17</sup> NEC4 Form, Clause 13.2.

<sup>33</sup> Public Sector Standard Conditions of Contract (**PSSCOC**) Option Module Cm C2.0 and PSSCOC Option Module E, E2.0.

<sup>34</sup> PSSCOC for Construction Works, clause 14.3; PSSCOC for Design and Build, clause 14.3.

Feature	NEC4 Form	PSSCOC
	<p>within specific timeframes<sup>18</sup> and requires reasons for non-acceptance.<sup>19</sup> This structured approach ensures that all relevant information is communicated clearly and concisely, with prompt responses from both parties. As a result, this enhances clarity regarding actions required, leading to improved efficiency and effective project delivery.</p> <p>iii. <u>Time Management</u>: The inclusion of detailed programme requirements<sup>20</sup> helps with effective time management. Contractors are required to submit and regularly update a detailed programme,<sup>21</sup> which aids in tracking progress and identifying delays early on.</p> <p>iv. <u>Proactive Risk Management</u>: The early warning system in the NEC4 ECC requires both parties to promptly notify each other of any risks that may affect price, time or quality.<sup>22</sup> Once a</p>	<p>iii. <u>Programme</u>: Requires regular submission of programme to the SO. However, it does not set the time for the SO to reply to the submission of the revised programme and does not require the SO to provide the reason for rejecting the revised programme. It also does not specify the implication of the SO's failure to reply to the submission.<sup>35</sup> However, this can be addressed via C7.0 of PSSCOC Option Module C and E7.0 of PSSCOC Option Module E.</p> <p>iv. <u>Early Warning System</u>: Does not, as a default, have an early warning system. However, this can be introduced through PSSCOC Option Modules C and E.<sup>36</sup></p> <p>v. <u>Compensation Event Management</u>: Includes a provision for advance agreement on variation</p>

<sup>18</sup> NEC4 Form, Clause 13.3.

<sup>19</sup> NEC4 Form, Clause 13.4.

<sup>20</sup> NEC4 Form, Clause 31.2.

<sup>21</sup> NEC4 Form, Clause 32.

<sup>22</sup> NEC4 Form, clause 15.1.

<sup>35</sup> PSSCOC, clause 9.2.

<sup>36</sup> PSSCOC Option Module C, C3.0 and PSSCOC Option Module E, E3.0.

Feature	NEC4 Form	PSSCOC
	<p>risk is identified, a "risk reduction" meeting must be held to address the issue and shall be recorded in the "Risk Register".<sup>23</sup> This proactive approach helps prevent potential problems from escalating, allowing for timely intervention and effective mitigation.</p> <p>v. <b><u>Compensation Event Management:</u></b> NEC4 ECC's processes for notifying, assessing and implementing compensation events are clear. The process follows a "sort it out now" approach, where the Contractor is required to price the impact of any changes (including time and cost) within three weeks, and the Project Manager must respond within two weeks.<sup>24</sup> This streamlined approach facilitates early resolution, providing both parties with more flexibility and control over changes, ultimately leading to smoother project execution.</p> <p>vi. <b><u>Incentivization:</u></b> NEC4 ECC provides options to incentivize the Contractor, encouraging improved performance and delivering value for all parties involved. There are</p>	<p>costs before execution.<sup>37</sup> However, unlike NEC4 ECC, it does not set specific deadlines for the submission of quotations or the response to those quotations. Furthermore, it does not explicitly consider the time implications of variations and lacks the structured and time-bound procedures found in NEC4 ECC, making its approach to compensation events comparatively less robust and less predictable.</p> <p>vi. <b><u>Incentivization:</u></b> Provides an "Alternative Proposal for Variation to Works by the Contractor"<sup>38</sup> which allows the Contractor to propose improvements or optimizations to the works. If the proposal is accepted, the Contractor may be entitled to a fee, and any cost savings are shared between the parties. Additionally, PSSCOC Option Modules C and E introduce <i>Key Performance Incentives</i>, which allow the Employer to set performance targets tied to bonus payments.<sup>39</sup> However, compared to the NEC4 ECC, PSSCOC provides fewer incentive mechanisms.</p>

<sup>23</sup> NEC4 Form, clause 15.

<sup>24</sup> NEC4 Form, clauses 62.2 and 62.3.

<sup>37</sup> PSSCOC for Construction Works, clause 19.3, and PSSCOC for Design and Build, clause 19.3.

<sup>38</sup> PSSCOC for Design and Build, clause 19.4 and PSSCOC for Construction Works, clause 19.4.

<sup>39</sup> PSSCOC Option Module C, C6.0 and PSSCOC Option Module E, E6.0.

Feature	NEC4 Form	PSSCOC
	<p>two types of incentives:</p> <p>(1) Positive Incentives (Options X6, X20, X21 and X29 of NEC4 ECC)</p> <p>Option X6 specifies a bonus to be paid to the contractor, subcontractor, or consultant for completing the work earlier than the agreed completion date. Option X20 allows the incorporation of Key Performance Indicators (KPI) with an incentive structure, setting both a target for each KPI and the corresponding payment. Option X21 proposes a reduction in the cost of operating and maintaining the asset (or affected property) linked directly to a change in scope. All of these positive incentives are designed to encourage enhanced baseline performance.<sup>25</sup></p> <p>(2) Negative Incentives (Options X7, X17 and X29 of NEC4 ECC)</p> <p>Option X7 stipulates pre-determined “liquidated” damages to be paid if the completion or delivery is not achieved by the specified deadline. Option X17 also imposes “liquidated” damages, but this applies to the delivered performance rather than the completion time. Option X29 includes a performance table with defined targets, which may be linked to both positive and negative incentives. These negative incentives aim to</p>	<p>vii. <u>Dispute Avoidance and Resolution:</u></p> <p>Does not include dispute avoidance mechanisms as a default unlike NEC4 ECC. However, dispute avoidance tools can be introduced through the incorporation of PSSCOC Option Module C or E. These modules establish a Dispute Board in accordance with the <i>Singapore Infrastructure Dispute-Management Protocol 2018</i>.<sup>40</sup> This approach encourages proactive resolution of issues before formal legal proceedings such as arbitration.</p>

<sup>25</sup> Andrew Wooldridge-Irving and Alex Tolson, “NEC X options: Incentivisation”, undated.

<sup>40</sup> PSSCOC Option Module C, C4.0 and PSSCOC Option Module E, E4.0.

Feature	NEC4 Form	PSSCOC
	<p>ensure that the baseline level of performance is met.<sup>26</sup></p> <p>vii. <u>Dispute Avoidance and Resolution:</u></p> <p>In addition to promoting dispute avoidance through a collaborative mindset,<sup>27</sup> an early warning system,<sup>28</sup> programme management,<sup>29</sup> and compensation events,<sup>30</sup> NEC4 ECC also provides options for dispute avoidance. These options allow disputes to first be referred to the senior representatives<sup>31</sup> or the Dispute Avoidance Board<sup>32</sup> before the parties can refer to the adjudication and/or tribunal (court or arbitration).</p>	

<sup>26</sup> Andrew Wooldridge-Irving and Alex Tolson, “NEC X options: Incentivisation”, undated.

<sup>27</sup> NEC4 Form, clause 10.2.

<sup>28</sup> NEC4 Form, clause 15.

<sup>29</sup> NEC4 Form, clauses 11.2(1), 31 and 32.

<sup>30</sup> NEC4 Form Core Clause 6.

<sup>31</sup> NEC4 Form W1.

<sup>32</sup> NEC4 Form W3.

12. Potential disadvantages in adopting the NEC4 ECC (in comparison to the PSSCOC) include the following:

Feature	NEC4 Form	PSSCOC
<b>Project Management Resources and Costs</b>	<b>More Project Management Resources and Costs:</b> Requires more administrative work upfront compared to traditional contracts, especially in contract set-up, stakeholder alignment, and ongoing performance management. The complexity of the administrative work associated with the NEC4 ECC means that more resources are needed for project management, including staff, systems specialist training, and professional advice. <sup>41</sup> This translates to higher project management costs.	<b>Less Project Management Resources and Costs:</b> As the PSSCOC does not incorporate the elaborate project management tools of NEC4 ECC, it requires fewer resources for project administration and therefore lower project management costs.
<b>Language</b>	<b>More Difficult to Construe:</b> While the NEC4 Form is designed to be clear and easy to understand, the use of present tense throughout the contract can sometimes create challenges in interpreting the clauses, which may result in ambiguity. <sup>42</sup>	<b>Easier to be Legally Construed:</b> As PSSCOC (including PSSCOC Option Modules C and E) still adopts a traditional drafting style, it should not cause difficulty to be legally interpreted by legal counsel and judges. <sup>43</sup>
<b>Cross Reference</b>	<b>Lack of Cross Referencing:</b> Lacks cross reference between clauses where most of the clauses stand alone notwithstanding interaction between some. Therefore, it is necessary for the user to understand each clause very clearly by way of training. <sup>44</sup>	<b>More Cross Referencing:</b> Has more cross references between the clauses. Therefore, it should be easier for the user to navigate and understand the procedures and mechanisms.

<sup>41</sup> Mott MacDonald, “The Mott MacDonald Little Book of NEC Contracts”, undated, at pp 12-13.

<sup>42</sup> *Anglian Water Services Ltd. v. Laing O'Rourke Utilities Ltd* [2010] EWHC 1529 (TCC) at [28] and *RWE Npower Renewables Ltd v J N Bentley Ltd* [2014] EWHC 978 (TCC) at [8].

<sup>43</sup> Joanna Seetoh, Nicole Lee, Shy Jackson and Wanjing Goh, “Collaboration in Practice Under Singapore PSSCC Module E and NEC4”, Society of Construction Law Singapore, 27 June 2024.

<sup>44</sup> Bill Barton, “Webinar: NEC4 to C or Not to C?”, Barton Legal, 23 July 2020, at p 18.

**F. In Singapore standard forms, there is one contract administrator. Why does the NEC4 ECC have a Project Manager and a Supervisor and what are their respective roles?**

Intention of separating the “client side” roles

13. The division of roles between the Project Manager and the Supervisor in NEC4 ECC is based on the core principle that “a clear division of function and responsibility helps accountability and motivates people to play their part.”<sup>45</sup> This distinction streamlines decision-making and ensures each party can focus on their specific duties without overlap.
14. The Project Manager acts as an impartial contract administrator, responsible for overseeing the project's delivery, managing changes, and handling compensation events. The Supervisor focuses on monitoring the works, verifying compliance and ensuring quality.
15. On smaller projects, one individual may take on both roles. While practical, such an individual must clearly distinguish between the two roles in communications with the Contractor.<sup>46</sup> On larger projects, both roles are typically supported by teams, with the authority to delegate tasks.<sup>47</sup>

Key Roles of Project Manager

16. The Project Manager's role under the NEC4 ECC primarily revolves around administering and managing the contract to ensure the Client's objectives for the completed project are met. In this capacity, the Project Manager exercises judgment in key areas, including: (i) determining whether an event qualifies as a compensation event, (ii) assessing the compensation event, and (iii) deciding the amount to be paid to the Contractor. These decisions should be made independently and in strict adherence to the contract terms.<sup>48</sup>

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<sup>45</sup> Mott MacDonald, “*The Mott MacDonald Little Book of NEC Contracts*”, at p 9.

<sup>46</sup> NEC4, *NEC4: Managing an Engineering and Construction Contract*, Volume 4, June 2017, at p 11.

<sup>47</sup> NEC4, *NEC4: Managing an Engineering and Construction Contract*, Volume 4, June 2017, at p 12.

<sup>48</sup> NEC4, *NEC4: Managing an Engineering and Construction Contract*, Volume 4, June 2017, at p 11.

17. **Mutual Trust and Cooperation:** The Project Manager is obliged to act in the spirit of mutual trust and cooperation,<sup>49</sup> specifically in managing parts of the contract, such as early warning, payment, programme and compensation events.
18. **Communication:** The Project Manager is required to reply to a communication submitted by the Contractor for acceptance within a specified period for reply. For example, under Clause 31.3, the Project Manager is required to notify the Contractor of acceptance of the programme submitted by the Contractor within two weeks of submission.
19. **Early Warning:** The Project Manager is obliged to set up and issue the first Early Warning Register (EWR) and set up the first early warning meeting with the Contractor. The Project Manager has to update the EWR to record any decisions about actions to be taken at each early warning meeting, stating not only who will take them but also when the actions will be taken, and to issue the updated register within one week of each early warning meeting.<sup>50</sup>
20. **Management:** The Project Manager has to accept or reject the submissions made by the Contractor regarding the design,<sup>51</sup> design of equipment,<sup>52</sup> replacement of person,<sup>53</sup> proposed subcontractor,<sup>54</sup> and proposed subcontract documents.<sup>55</sup> The Project Manager also needs to assess the additional cost incurred by the Client for the Contractor's failure to meet the Key Date.<sup>56</sup> The Project Manager is responsible for determining the date of completion and certifying completion<sup>57</sup> and must also decide whether to accept or reject the submissions made by the Contractor regarding the programme.
21. **Payment:** The Project Manager is responsible for assessing the amount due at each assessment date<sup>58</sup> and certifying payment. This certification includes a

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<sup>49</sup> NEC4 Form, Clause 10.2.

<sup>50</sup> NEC4 Form, Clauses 15.2, 15.3, and 15.4.

<sup>51</sup> NEC4 Form, Clause 21.2.

<sup>52</sup> NEC4 Form, Clause 23.1.

<sup>53</sup> NEC4 Form, Clause 24.1.

<sup>54</sup> NEC4 Form, Clause 26.2.

<sup>55</sup> NEC4 Form, Clause 26.3.

<sup>56</sup> NEC4 Form, Clause 25.3.

<sup>57</sup> NEC4 Form, Clause 30.2.

<sup>58</sup> NEC4 Form, Clause 50.1.

breakdown of how the amount due has been calculated. The Project Manager must also make an assessment of the final amount due, effectively “closing” the contract.<sup>59</sup> For Options C to F, the Project Manager must also identify any costs deemed to be disallowed, ensuring that these are excluded from the amount due.<sup>60</sup>

22. **Compensation Events:** The Project Manager plays a central and crucial role in the compensation event process. The Project Manager is responsible for identifying and assessing compensation events, including their impact on both cost and time. Based on this assessment, the Project Manager determines any necessary changes to the contract prices. If the Contractor fails to provide its own assessment of the compensation event, or the Contractor’s assessment is deemed incorrect by the Project Manager, the Project Manager will conduct its own assessment and establish the necessary adjustment to the prices.<sup>61</sup> In addition, the Project Manager also assesses any delays resulting from a compensation event and determines the extension of time the Contractor is entitled to,<sup>62</sup> providing relief from liquidated damages that would otherwise apply due to the delay.

#### Key Roles of Supervisor

23. The Supervisor plays a key role in quality control and ensuring compliance of the works. Acting on behalf of the Client, the Supervisor is responsible for overseeing all aspects of quality, testing, and defects.<sup>63</sup> The Supervisor also focuses on identifying and rectifying defects and ultimately certifying any remaining defects through the issuance of the Defects Certificate.<sup>64</sup> The Defects Certificate marks the completion of most obligations under the contract and initiates the process for the final payment. While the Supervisor’s actions may have financial implications, they are not directly involved in financial matters.<sup>65</sup>

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<sup>59</sup> NEC4 Form, Clause 53.1.

<sup>60</sup> NEC4 Form Option C, Clause 11.2 (26), NEC4 Form Option D, Clause 11.2 (26), NEC4 Form Option E, Clause 11.2 (26), and NEC4 Form Option F, Clause 11.2 (27).

<sup>61</sup> NEC4 Form, Clauses 64(1) and 66(2).

<sup>62</sup> NEC4 Form, Clauses 64(1) and 66(2).

<sup>63</sup> NEC4, *NEC4: Managing an Engineering and Construction Contract*, Volume 4, June 2017, at p 11 and Kelvin Hughes, *NEC4: 100 Questions and Answers*, Routledge, 10 May 2019, at p 49.

<sup>64</sup> NEC4 Form, Clauses 11.2 (7) and 44.3.

<sup>65</sup> NEC4, *NEC4: Managing an Engineering and Construction Contract*, Volume 4, June 2017, at p 11.

- 24. **Mutual Trust and Cooperation:** The Supervisor is required to act in accordance with the contract, maintaining a collaborative approach based on mutual trust and cooperation.
- 25. **Communication:** The Supervisor must respond to communications within the designated reply period and issue certificates to the Project Manager, the Client, and the Contractor.<sup>66</sup>
- 26. **Defects:** The Supervisor shall notify the Contractor of a defect when he is aware of it<sup>67</sup> and may instruct the Contractor to search for the defect.<sup>68</sup> However, the Supervisor's failure to notify the Contractor does not absolve the Contractor from its responsibility to correct the defect.<sup>69</sup> Once all notified defects have been corrected or the last defect correction period has ended, the Supervisor issues the Defects Certificate.<sup>70</sup> This is the only certificate issued by the Supervisor.

**G. Clauses 10.1 and 10.2 of the NEC4 ECC require parties to “act in a spirit of mutual trust and co-operation”. What does this mean?**

- 27. Clause 10 of the NEC4 ECC provides that:
 

*“10.1 The Parties, the Project Manager and the Supervisor shall act as stated in this contract.*

*10.2 The Parties, the Project Manager and the Supervisor act in a spirit of mutual trust and co-operation.”*
- 28. The obligation to act “*in a spirit of mutual trust and co-operation*” is consistent with one of the core principles of the NEC4 suite of contracts, which is to stimulate good management of the relationship between the parties to the contract and therefore, of the work involved in the contract.

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<sup>66</sup> NEC4 Form, Clauses 13.3 and 13.6.

<sup>67</sup> NEC4 Form, Clause 43.2.

<sup>68</sup> NEC4 Form, Clause 43.1.

<sup>69</sup> NEC4 Form, Clause 44.1.

<sup>70</sup> NEC4 Form, Clause 44.3.

29. While the phrase “*spirit of mutual trust and co-operation*” has not been definitively defined, guidance may be sought from caselaw.

F & C Alternative Investments (Holdings) Limited v Barthelemy (No. 2) [2011]  
EWHC 1731

30. Sales J, when dealing with an obligation with “utmost good faith”, said that “*it is a form of contractual duty which requires the obligor to have regard to the interests of the obligee, while also being entitled to have regard to its own self-interest when acting.*”

31. According to Keating on NEC3,<sup>71</sup> the case of *Automasters Australia Pty Ltd v Bruness Pty Ltd*<sup>72</sup> is authority for the following propositions on “good faith”:

- (a) What is good faith will depend on the circumstances of the case and the context of the whole contract.
- (b) Good faith obligations do not require parties to put aside self-interest; they do not make the parties fiduciaries.
- (c) Normal reasonable business behaviour is permitted but a court will consider whether a party has acted reasonably or unconscionably or capriciously and may have to consider motive.
- (d) The duty is one “*to have due regard to the legitimate interests of both the parties in the enjoyment of the fruits of the contract as delineated by its terms*”.

Mears v Shoreline Housing Partnership Ltd [2015] EWHC 1396 (TCC)

32. The court was not satisfied that “*the obligation to act in a spirit of mutual trust and cooperation or even in a ‘partnering way’ would prevent either party from relying on any express terms of the contract freely entered into by each party.*” In essence, a party to a contract was not required to act against its own self-interest.

33. In summary, the clause does not import obligations which would override the express contractual terms in the contract and accordingly, parties are obliged to:

- (a) comply with the requirements in the contract; and
- (b) do so in a trustful collaborative manner.

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<sup>71</sup> David Thomas QC, *Keating on NEC3*, 1st ed (Sweet & Maxwell 2012).

<sup>72</sup> [2002] WASC 286, (2003) Aust Contract R 90–162.

**H. The contract sum in Singapore standard-form construction contracts is usually based on a lump-sum fixed price or measurement (with an agreed schedule of rates) basis. Does the NEC4 ECC offer any other pricing options?**

34. The NEC4 ECC provides six pricing options, depending on specific project requirements and parties' preferences for parties to choose from:<sup>73</sup>

<b>Option A</b> (Priced contract with activity schedule)	This is NEC4 ECC's version of a lump-sum contract, with the lump sum representing the total of the prices listed in an activity schedule. The activity schedule breaks down the work to be performed by the contractor under the contract.
<b>Option B</b> (Priced contract with bill of quantities)	This is NEC4 ECC's version of a remeasurement contract.  Options A and B are suitable for relatively straightforward projects where the client has a fixed budget and the contractor is willing and able to manage financial risks.
<b>Option C</b> (Target contract with activity schedule)	This option also relies on an activity schedule. The difference between Option C and Option A is that instead of being paid the activity schedule price for a completed activity, the contractor is paid a "Defined Cost" for work completed by the relevant assessment date, plus a fee element.  The "Defined Cost" is the cost of the components in a list of cost items that are eligible for payment to the contractor, less the "Disallowed Cost". "Disallowed Cost" includes costs incurred due to the contractor's default or breach (e.g., costs not justified by the contractor's accounts and records, correcting defects after completion, etc.).  One key feature of Option C is that there is an established target for the total cost of the works. There is also the concept where, if the actual cost is below the target cost, both parties share the cost savings. Conversely, if the actual costs exceed the target cost, each party bears a percentage of the cost overrun.
<b>Option D</b> (Target contract with bill of	Similar to Option C, Option D has an established target for the total cost of the works. The key difference between Option C and Option D is that Option C uses an activity schedule while

<sup>73</sup>

NEC, "NEC4 ECC Pricing provisions – an introduction for new NEC users", 18 June 2024.

quantities)	Option D uses a bill of quantities.
	Options C and D are suitable for more complex or larger projects where the client and the contractor are willing to share project financial risks in a collaborative way.
<b>Option E</b> (Cost reimbursable contract)	The contractor is paid based on “Defined Costs” (similar to Option C) plus a “Fee”. Unlike Option C, there is no target, and the works are paid on an open-book basis.
	Option E is suitable for projects where the scope of work cannot be properly defined at the outset, and the client is prepared to bear most of the financial risks.
<b>Option F</b> (Management contract)	Similar to Options C to E, the contractor is paid based on “Defined Costs” plus a “Fee”.
	This option is intended for projects where the contractor acts as a management contractor, and the works are entirely delivered by various sub-contractors engaged by the contractor. The financial risks are largely borne by the client.

## I. How do you incorporate KPIs in the NEC4 ECC?

- 35. The NEC4 ECC provides for the use of KPIs in Option X20. If the Employer wishes to include KPIs as part of the contractual obligations, it will have to adopt Option X20 as one of its secondary options.
- 36. X20.1 first defines “Key Performance Indicator” as “*an aspect of performance by the Contractor for which a target is stated in the Incentive Schedule*”. Therefore, the starting point is to include an Incentive Schedule in the contract data/tender. The Incentive Schedule will need to set out the “targets” (i.e., the KPIs) which the Employer hopes to achieve, as well as the “incentives”, i.e., amounts to be paid to the Contractor if each of the targets is met. Ultimately, the Contractor is entitled to receive payment of a pre-determined sum set out in the Incentive Schedule if it fulfils the specific KPI.
- 37. In its current form, Option X20 provides for positive incentives (i.e., fixed payments) to the Contractor for achieving a pre-determined milestone/measure,

with the guidance note indicating that KPIs are intended to encourage the Contractor to meet the stated objectives. While Option X20 does not contain any specific KPIs for the Employer to adopt, examples of performance-related KPIs include:

- (a) Programme/Time-related milestones;
- (b) Safety; and
- (c) Quality of Works/Minimising Wastage of Material.

38. It remains open to the Employer to provide for a negative incentive by imposing damages on the Contactor for failing to achieve KPIs, but this will require the utilization of Option Z clauses. Such negative incentives may be by way of a monetary penalty, reduction in fee percentage, etc.
39. It is also important to establish the process/methodology for monitoring (and measuring) the performance of the works, and reporting such performance as measured in accordance with the KPIs. One crucial aspect is to ensure that the process/methodology for monitoring and assessing the performance of the works is clearly set out. This is to ensure that the measurement and determination of whether each specific KPI has been achieved is unambiguous and fair, and not subject to challenge.

**J. Does the NEC4 ECC cater for value engineering and sharing of costs saving?**

40. Yes. Clause 16 of the NEC4 ECC allows the Contractor to propose to the Employer changes to the scope of works that would reduce the costs of the works (i.e., make value engineering proposals), in return for a share of the costs savings to be enjoyed by the Employer, as set out in the contract.
41. Option X21 also provides a whole-life cost savings mechanism where the Contractor can propose a change in scope to reduce the whole-life cost of operating and maintaining, for instance, a piece of equipment (often with an increase in the cost of the equipment). However, the risk that the cost savings may not be realised will generally lie with the Employer. Therefore, the Employer will need to assess and satisfy itself on the viability of the potential savings.

**K. Collaborative contracts typically include early warning and risk register mechanisms. Does the NEC4 ECC incorporate such mechanisms?**

42. Yes. The early warning feature in NEC4 ECC is a key risk management tool designed to encourage proactive problem-solving and collaboration. It helps identify and mitigate potential issues such as unforeseen site conditions, delays in approvals, material shortages or design changes before they escalate into costly delays or disputes.

43. Key aspects of the early warning process in NEC4 ECC:

- (a) **Obligation to Notify** – Either the Contractor or the Project Manager must notify the other as soon as they become aware of a matter that could:
  - increase total project costs;
  - delay project completion;
  - impact project quality or performance; or
  - affect the Contractor's ability to meet contractual obligations.
- (b) **Early Warning Register (EWR)** – After an early warning is raised, it is recorded in the EWR. This document tracks all identified risks and their status throughout the project.
- (c) **Early Warning Meetings** – Regular risk reduction meetings are held, where the parties discuss and agree on potential solutions or mitigation measures for the risks identified.
- (d) **Collaborative Approach** – Unlike traditional contracts that focus on penalties and disputes, NEC4 ECC encourages teamwork. The Contractor and the Project Manager work together to find the best possible solution.
- (e) **Impact on Compensation Events** – If an early warning is not raised when it should have been, this could affect the assessment of compensation events (i.e., variations, delays, or disruptions that impact cost and time).
- (f) **Timeframes and Compliance** – NEC4 ECC emphasises timely communication. If a party fails to notify an early warning, it may lose entitlement to claim compensation later.

44. There are several benefits from the early warning process in NEC4 ECC:

- (a) Encourages transparency and proactive risk management;

- (b) Reduces disputes and costly delays;
- (c) Improves collaboration between stakeholders; and
- (d) Enhances project efficiency and cost control.

**L. How do claims for time and cost relief by Contractors operate under the NEC4 ECC?**

1. Contractors are entitled to claim additional time and/or costs upon the occurrence of a Compensation Event, subject to the Contractor complying with the contractual notification requirements.

**(a) Compensation Events**

<b>Clause</b>	<b>Compensation Event</b>
60.1(1)	The Project Manager gives an instruction changing the Scope, except in two scenarios: <ul style="list-style-type: none"> <li>• a change made in order to accept a Defect; or</li> <li>• a change to the Scope provided i) by the Contractor at the Contractor's request or ii) in order to comply with the Scope provided by the Client.</li> </ul>
60.1(2)	The Client does not provide access to the Site by a specified date.
60.1(3)	The Client does not provide something which is to be provided by a specified date.
60.1(4)	The Project Manager gives an instruction to stop or not to start any work or to change a Key Date.
60.1(5)	The Client or Others do not work within the stipulated time or conditions, or carry out work on the Site that is not stated in the Scope.
60.1(6)	The Project Manager or the Supervisor does not reply to a communication from the Contractor within a stipulated time.
60.1(7)	The Project Manager gives an instruction to deal with an object of value or of historical or other interest found in the Site.
60.1(8)	The Project Manager or the Supervisor changes a decision which has previously been communicated to the Contractor.
60.1(9)	The Project Manager withholds an acceptance (other than an acceptance for quotation for acceleration or for not correcting a Defect) for a reason not within the contract.
60.1(10)	The Supervisor instructs the Contractor to search for a Defect and no Defect is found, except where the search is needed only because the

<b>Clause</b>	<b>Compensation Event</b>
	Contractor gave insufficient notice of doing work which resulted in an obstruction of a required test or inspection.
60.1(11)	The Supervisor conducts a test or inspection causing unnecessary delay.
60.1(12)	The Contractor experiences physical conditions within the Site that are not weather conditions, and such conditions are such that an experienced contractor would, at the date of the contract, deem to have such a small chance of occurring that it would have been unreasonable to have allowed for them.
60.1(13)	A weather measurement (recorded within a calendar month before the Completion Date and at a specified location) is one that, in comparison with the weather data, occurs less than once every 10 years on average.
60.1(14)	An event that is stated to be a Client's liability within the contract.
60.1(15)	The Project Manager certifies a takeover of a part of the works before both Completion and the Completion Date.
60.1(16)	The Client does not provide materials, facilities and samples for tests and inspections.
60.1(17)	The Project Manager notifies the Contractor of a correction to an assumption which the Project Manager stated about a Compensation Event.
60.1(18)	The Client breaches the contract, and the breach is not one of the other Compensation Events in the contract.
60.1(19)	<p>An event which:</p> <ul style="list-style-type: none"> <li>• prevents the Contractor from completing the whole of the works;</li> <li>• neither party could prevent;</li> <li>• an experienced contractor would have judged at the date of contract to have such a small chance of occurring that it would be unreasonable to have allowed for it; and</li> <li>• is not one of the other Compensation Events stated in the contract.</li> </ul>
60.1(20)	The Project Manager notifies the Contractor that a quotation for a proposed instruction is not accepted.
60.1(21)	Parties may provide for additional Compensation Events.

(b) Notice requirements

Either the Contractor or the Project Manager may issue a notification in respect of a Compensation Event, depending on the nature of the Compensation Event. If the relevant event arises from the Project Manager or the Supervisor giving an instruction, or the Project Manager issuing a certification or changing an earlier decision, the Project Manager is required to notify the Contractor of the Compensation Event. For all other Compensation Events, the Contractor is required to notify the Project Manager of the Compensation Event within eight weeks of becoming aware that the event has happened.<sup>74</sup> Notice by the Contractor (i.e., for all Compensation Events where the Contractor is required to give notice) in compliance with all contractual stipulations for notice is a condition precedent to the Contractor's entitlement to claim a Compensation Event.

A flowchart summarising the timelines and process in relation to the Contractor and Project Manager notification of Compensation Events is set out in **Annex A**.

**M. My colleagues and I are keen to learn more about the NEC4 ECC. Are there any local courses available?**

2. Yes. NEC runs a number of virtual courses. More details are available at <https://www.necccontract.com/products/training>. BCA and private bodies also run courses in Singapore. For example,
  - (a) Certification Course on Collaborative Contracting (Construction)<sup>75</sup> run by the BCA Academy: a 4-day course which offers more time to discuss in depth collaborative contractual provisions under the PSSCOC as well as the NEC4 ECC; and
  - (b) Events run by the Society of Construction Law:<sup>76</sup> such events are presented in a short webinar form (under two hours) for attendees to be introduced to the NEC4 ECC and how it may align with local laws.

**N. I am considering the adoption of the NEC4 ECC for my project. Where do I start?**

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<sup>74</sup> NEC4 Form, Clause 61.3.

<sup>75</sup> BCA Academy, *Certification Course on Collaborative Contracting (Construction)*, last updated 8 December 2025.

<sup>76</sup> See for example, *WEBINAR: NEC4: Collaborative Features and Implementation in Singapore and the Region* dated 5 December 2024.

3. A good starting point for more information would be BCA's website.<sup>77</sup>
4. After obtaining basic information on collaborative contracting principles, appropriately trained members of your organisation may invest in purchasing the contract form and/or books for study.<sup>78</sup>
5. NEC forms require edits to comply with Singapore law as well as the circumstances of each project. You are encouraged to seek professional advice once you have identified a suitable project for this contract delivery model.

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<sup>77</sup> See for example, Building and Construction Authority, "[Launch of NEC4 Contract for Construction and Engineering Projects in Singapore](#)", 29 April 2024.

<sup>78</sup> See for example, NEC, "[Books](#)", undated.

## Annex A Summary of Timelines and Process in relation to the Contractor and Project Manager Notification of Compensation Events

### Scenario 1: Contractor Notifies Project Manager of the Compensation Event



