

QUALITY FEE METHOD

For Procurement of Accredited Checking (AC) Services

Framework

Effective for quotations and tenders called on and after 1 May 2020

1.0 GENESIS OF QFM FOR AC

- 1.1 Before 2018, most of the public sector procurement of Accredited Checking (AC) services used to be based on fees only, as the values of AC services were usually smaller (often involved quotations) and AC services have a relatively well-defined scope of work. Notwithstanding this, some agencies considered both fee and quality assessment criteria when evaluating the bids for AC services, recognising that the quality and experience of Accredited Checkers (ACs) are critical to the structural safety and smooth delivery of a construction project.
- 1.2 In line with the revised Quality Fee Method (QFM) for all disciplines under the Public Sector Panel of Consultants (PSPC) which became effective from 31 Jan 2018, the QFM for procurement of AC services aims to place a strong emphasis on quality in the evaluation of procurement for AC services. The evaluation method shall be based on the principles of QFM. The QFM for AC (i.e. QFM(AC)) is applicable to all procurement of AC services through quotation and tender approach.

2.0 KEY PRINCIPLES OF QFM(AC)

2.1 High emphasis on Quality. The QFM(AC) is a competitive selection method that takes into consideration Quality and Fee proposals submitted by firms in a quotation or a tender. It places high emphasis on quality with higher weightage placed on Quality as compared to Fee.



2.2 Open and Transparent. The QFM(AC) procedures shall be operated in an open and transparent manner¹. It adopts a one-envelope and two-envelope system² for quotations and tenders respectively.

¹ This includes stating explicitly the weightages of the various quality criteria sought for in the quotation or tender, on top of stating the Quality: Fee weightage.

² Please refer to [Para 3.2](#) and [Para 3.3](#) on how the one-envelope system and two-envelope system shall be operated respectively.

2.3 Resource Efficient. The QFM(AC) shall be carried out in an efficient manner to reduce cost and efforts in quotations, tendering procedures and tender evaluation.

3.0 MAIN FEATURES OF QFM(AC)

3.1 Weightages for QFM(AC). The Quality weightage shall be increased for quotations and tenders for Accredited Checking (AC) services called on and after 1 May 2020.

Date of Quotation or Tender Called	Quality Component		Fee Component
Before 1 May 2020	50%		50%
On or after 1 May 2020	Submission Quality-score (S-score)	Quality-score (Q-score)	30% - 10% accordingly
	30%	40% - 60%	

3.2 One-envelope System for quotations. For quotations, agencies shall request for Quality proposal and Fee proposal to be submitted in one envelope. To maintain objectivity and minimise the possible influence of Fees on the evaluation of Quality, Agencies shall compute the Quality scores **before** computing the Fee scores even though both Quality and Fee proposals shall be opened together.

3.3 Two-envelope System for tenders. For tenders, agencies shall request for Quality proposal and Fee proposal to be submitted in two separate envelopes as per current practice for QFM. To maintain objectivity and eliminate the possible influence of Fees on the evaluation of Quality, the Quality proposal envelopes are to be opened and computed **before** the envelopes for the Fee proposals are opened and Fee scores computed.

4.0 AC REGISTERS

4.1 BCA maintains the following AC Registers under BCA's website³.

- a) Register of Individual Accredited Checkers (AC) (for projects of up to \$15mil)
- b) Register of Accredited Checkers in Accredited Checking Organisations (ACO) (for all projects)
- c) Register of Specialist Accredited Checkers [Geotechnical Aspects] {AC(Geo)}

³ Please visit the BCA website for more information on Register of Individual Accredited Checkers, Register of Accredited Checkers in Accredited Checking Organisations and Register of Specialist Accredited Checkers (Geotechnical Aspects) (<https://www1.bca.gov.sg/regulatory-info/building-control/structural-plans-and-permit-approvals>).

For simplicity, the use of “Accredited Checker (AC)” in this QFM (AC) Framework refers to any firm, either as an individual Accredited Checker, an ACO or a Specialist Accredited Checker {AC(Geo)} providing accrediting checking services.

5.0 SCORING METHODOLOGY⁴ (see Annex A for illustrations)

5.1 “Quality” Component.

5.1.1 The attributes under the “Quality” component are: .

- (a) Mandatory attribute Submission quality-score (S-score) – fixed 30% of overall QFM weightage:

Submission quality-score (S-score) and Submission quality point (S-point) – Based on technical lapses⁵ in AC’s structural plan submissions verified through Written Directions (WDs) issued by BCA. WDs are written comments or clarifications given by BCA to Qualified Persons (QPs) and ACs during structural plan submissions. The S-Score shall be calculated based on Submission quality-point (S-point).

The S-point will be updated by BCA on a half-yearly basis (in April & October each year) and made available to all Agencies). Tenderers with the highest S-points shall be awarded the full score while the score of the other tenderers shall be calculated proportionally to the highest S-points.

$$S - score = \frac{\text{Bid' s } S - points}{\text{Highest } S - points \text{ Among All Bids}} \times 30$$

Some ACs have chosen to submit the S-point (on a letter sent by BCA – please refer to [Annex A1](#) for sample of BCA letter) to agencies during the tender/quotation submission as they did not provide consent to BCA to publish their S-point. These ACs are clearly indicated on BCA’s S-point list. ***If these ACs fail to submit their S-point during tender/quotation, their S-point shall be taken as zero.***

For those ACs that have been indicated as without S-point on the BCA’s S-point list due to their lack of structural plan submissions to BCA, they shall be given the average score of all conforming tenderers. The S-score calculation for different scenarios is shown below.

⁴ Please refer to [Annex A](#) for illustrations of the scoring methodology.

⁵ Lapses of ACs in performing the design checks stipulated in the Building Control Act and Regulations.

S/N	S-score Calculation	Extract from List of AC's S-points																				
1	Tenderer's S-points can be retrieved from the List of AC's S-points that shall be made available to agencies. S-score shall be calculated using the formula.	<table border="1"> <tr> <td>AC1</td> <td>AC to submit S-points to GPE during tender/ quotation</td> </tr> <tr> <td>AC2</td> <td>No points</td> </tr> <tr> <td>AC3</td> <td>60</td> </tr> <tr> <td>AC4</td> <td>AC to submit S-points to GPE during tender/ quotation</td> </tr> <tr> <td>AC5</td> <td>No points</td> </tr> <tr> <td>AC6</td> <td>100</td> </tr> <tr> <td>AC7</td> <td>100</td> </tr> <tr> <td>AC8</td> <td>80</td> </tr> <tr> <td>AC9</td> <td>No points</td> </tr> <tr> <td>AC10</td> <td>AC to submit S-points to GPE during tender/ quotation</td> </tr> </table>	AC1	AC to submit S-points to GPE during tender/ quotation	AC2	No points	AC3	60	AC4	AC to submit S-points to GPE during tender/ quotation	AC5	No points	AC6	100	AC7	100	AC8	80	AC9	No points	AC10	AC to submit S-points to GPE during tender/ quotation
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AC5	No points																					
AC6	100																					
AC7	100																					
AC8	80																					
AC9	No points																					
AC10	AC to submit S-points to GPE during tender/ quotation																					
2	<p>Tenderer to submit their <u>S-points to the agency in their quality proposal</u> when the GPE calls a tender/ quotation for AC/ SAC services. S-score shall be calculated using the formula.</p> <p>If Tenderer <u>Did Not</u> submit their S-points to the agency in their quality proposal, <u>tenderer shall be given zero S-score.</u></p>																					
3	Tenderer without S-points shall be given the average score of all conforming tenderers.																					

5.1.2 Non-mandatory Quality attributes under Quality-score (Q-score) could include but not limited to:

- a) Experience as AC - track records of relevant projects undertaken by the firm as the AC.
- b) Design experience as a Qualified Person (QP) – track records of relevant projects undertaken by the firm in the role of QP responsible for the design works.
- c) Resources & Expertise of checking engineers – qualification and experience of the AC himself and AC's checking engineers.
- d) Workload –Projects currently undertaken by AC.
- e) Past Performance – Agency's in-house records of past performance of the firm as AC.

5.1.3 “Quality” Score Computation. The bid with the highest total raw Quality points shall be given maximum Quality score. The Quality score of the other bids shall be calculated proportionally to the highest total Quality points.

$$\text{Quality Score (Q-score)} = \frac{\text{Bid's Raw Quality Points}}{\text{Highest Raw Quality Points Among All Bids}} \times \text{Quality Weightage}$$

5.2 “Fee” Component.

5.2.1 Agencies shall state clearly in their quotation or tender how the tenderers shall quote the Fee proposals i.e.

- By Percentage of final construction cost (%) or
- By Lump Sum (\$)

5.2.2 Measure to reduce fee diving. To discourage firms from quoting excessively low fees, a special scoring formula shall be employed for the calculation of Fee score where there are fees which are more than 20% below of the average quoted (“perceived fee-diving”). Tenderers with fees which are more than 20% below the average shall be awarded no further advantage than the score awarded to the fee at 20% below the average (F_{average}).

5.2.3 Calculation of average Fee (F_{average}). To prevent skewing of the average fee by outlier bids, outlier bids shall be excluded from the calculation of the average fee in general. Outlier bids are defined as bids that are more than 20% below or 50% above the average fee of all conforming bids.

5.2.4 “Fee” Score Computation. Agencies are to cite the two formulae below to compute the Fee-score (F-score).

- a) Scenario A – Normal Scenario: Where the lowest fee quoted is higher than or equal to $0.8F_{\text{average}}$

$$\text{Fee Score (F-score)} = \frac{\text{Lowest Proposed Fees}}{\text{Tenderer's Proposed Fee}} \times \text{Fee weightage}$$

- b) Scenario B – “Perceived Fee-diving” by Tenderer(s): Where the lowest fee quoted is lower than $0.8F_{\text{average}}$

$$\text{Fee Score (F-score)} = \frac{0.8F_{\text{average}}}{\text{Tenderer's Proposed Fee}} \times \text{Fee weightage}$$

Any fee quoted lower than $0.8F_{\text{average}}$ will get the maximum F-score.

Refer to 5.2.3 for calculation of F_{average} .

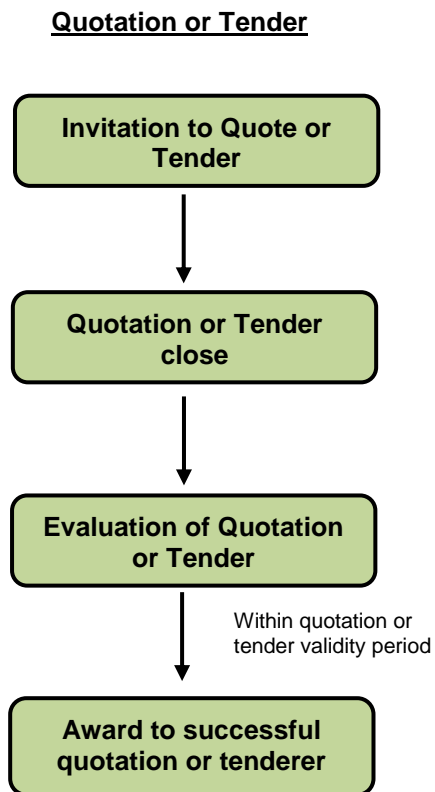
6.0 QFM PROCEDURES

- 6.1 For Procurement of AC Services under Quotation (i.e. Quotation Notice via GeBIZ) : For Quotations, a one-envelope system shall be adopted.
- The Quality proposal and Fee proposal are to be submitted in one envelope.
 - Agencies are to ensure that the scoring criteria are stated upfront clearly in the quotation document.
- 6.2 Evaluation of bids under Quotation: Agencies shall conduct the following after the closing of quotation:
- Agencies shall open the bid envelope and evaluate the Quality proposals, compute and finalise the Quality scores.
 - Agencies shall next evaluate the Fee proposals, compute and finalise the Fee scores.
 - The QFM score shall be the sum of Quality (Q-score), Submission quality (S-score) and Fee (F-score) scores.
- 6.3 For Procurement of AC Services under Tender (i.e. Tender Notice via GeBIZ): For Tenders, a two-envelope system shall be adopted.
- Quality proposal and Fee proposal are to be submitted in two separate envelopes. For ACs who choose to submit S-point during the tender, S-point shall be included in the Quality proposal envelope to avoid S-score being scored zero.
 - Agencies are to ensure that the scoring criteria are stated upfront clearly in the tender document.
- 6.4 Evaluation of bids under Tender: Agencies shall conduct the following after the closing of tender:
- Agencies shall open the Quality proposal envelopes, compute and finalise the Quality scores.
 - Agencies shall next open the Fee proposal envelopes, compute and finalise the Fee scores.
 - The QFM score shall be the sum of Quality (Q-score), Submission quality (S-score) and Fee (F-score) scores.

6.5 Guidelines on QFM(AC) Procedures.

	Quotations	Tenders
Preparatory Works	<ul style="list-style-type: none"> - Agencies are to prepare project brief, determine preliminary cost estimates and project timeframe. - Agencies shall determine the weightages for Q-score, S-score and Fee-score. - Agencies shall next determine the Quality attributes and the weightages for each of the attributes. 	
	<ul style="list-style-type: none"> - Each firm shall submit the Quality proposal and Fee proposal in one envelope. 	<ul style="list-style-type: none"> - Each firm shall submit the Quality proposal and Fee proposal in two separate envelopes.
Quotation or Tender Stage	<ul style="list-style-type: none"> - Agencies shall open the bid envelope and evaluate the Quality proposals, compute and finalize the Q-score and S-score. - Agencies shall next evaluate the Fee proposals, compute and finalize the Fee scores. - The QFM score shall be the sum of Q-score, S-score and Fee-score. Agencies are to award project to the firm with the highest QFM score. 	<ul style="list-style-type: none"> - Agencies shall open the Quality proposal envelopes, compute and finalize the Q-score and S-score. - Agencies shall next open the Fee proposal envelopes, compute and finalize the Fee scores. - The QFM score shall be the sum of Q-score, S-score and Fee-score. Agencies are to award project to the firm with the highest QFM score.

6.6 Flow Chart for QFM Procedures.



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For Accredited Checking (AC) Services

F r a m e w o r k

Effective for quotations and tenders called on and after 1 May 2020

Enclosed Annexes

- Annex A – Illustration of Scoring Methodology
- Annex B – Frequently Asked Questions (FAQs)

Annex A – Illustration of Scoring Methodology

A1: Sample of BCA letter indicating AC's S-point.



We shape a **safe, high quality, sustainable** and **friendly** built environment.

20/03/2020

Er. Name Of AC
AC/AC(Geo) No.: 0123
AC's Firm Name

Building Engineering Group (#12-00)
Tel : 63425222
Fax : 63342561
E-mail : BCA_Submission_Quality@bca.gov.sg

NOTIFICATION ON SUBMISSION QUALITY POINTS (S-PTS)

Based on your structural plan submissions (ST) approved in the period between 01-Jan-2019 and 31-Dec-2019, your S-pts is 80¹. This S-pts will be considered for S-score computation in QFM(AC) from 01-May-2020 to 30-Sep-2020.

- For enquiries, please contact us at BCA_Submission_Quality@bca.gov.sg.

Yours faithfully,

BUILDING ENGINEERING GROUP
BUILDING AND CONSTRUCTION AUTHORITY

(This letter is generated through electronic means and is a computer printout. No signature is required)

Notes: -

¹ S-pts will not be computed for ACs with less than 5 STs approved within the assessment period (AP) and their S-pts will be indicated as "NA". For ACs with "NA" S-pts, GPEs will use average S-pts computed from all participating tenderers for S-Score computation in QFM(AC). ACs with better submission quality will be awarded with higher S-pts. Please refer to <https://www.bca.gov.sg/qfm/qfm.html> for details on computation of S-pts.

A2: Example 1 – Scoring of QFM(AC) Tender (including S-score and 80% fee cap formula)

QFM Quality – Fee Ratio: (Quality:Fee = 90%:10%)

Mode of Fee Proposal: Percentage of final construction cost (%)

		Tenderer A	Tenderer B	Tenderer C	Tenderer D	Tenderer E
Submission - quality (S-score)	S-points (upon 100)	80	No submission	40	No points	100
	S-score (30pts)	24.00	0 ¹	12.00	18.75 ¹	30.00
Quality (Q-score)	Q_{raw} (upon 100)	85	70	83	79	91
	Q-score (60pts)	56.04	46.15	54.73	52.09	60.00
Quality (Total)	Total Q-score (90pts)	80.04	46.15	66.73	70.84	90.00
Fee	Fee (%)	0.30%	0.20%	0.30%	0.65%	0.36%
	F_{average}	$F_{average} = 0.320\%^2$ $\Rightarrow 0.8F_{average} = 0.256\%^2$				
	F-score (10pts)	8.53	10.00	8.53	3.94	7.11
Total QFM score (Total Q-score + F-score) (100pts)		88.57	56.15	75.26	74.78	97.11
Overall position		2	5	3	4	1

Notes:

- 1) As Tenderer D does not have any S-points, the AC shall be given the average score of all conforming tenderers [i.e. (24 + 9 + 12 + 30)/ 4 = 18.75]. For Tenderer B, the AC has opted to submit the S-points to GPEs during the tender/quotation submission. Nevertheless, as Tenderer B Did Not submit his S-points to the GPE in the quality proposal, Tenderer B shall be given zero S-score.
- 2) The $F_{average}$ is calculated based on bids from Tenderer A, C & E (after removal of outlier bids from Tenderer B & D). The fee-score shall be computed using the 80% fee cap formula based on the $0.8F_{average}$.

Annex B – Frequently Asked Questions (FAQs)

Rationale

Q1. What is the rationale for extending the QFM framework to all procurements of AC services?

A1. This is to place more emphasis on the quality of AC's work in evaluating, analysing and reviewing the structural design in building and geotechnical works. The aim of QFM(AC) is to provide a structured framework for non-fee criteria to be assessed alongside fee. In effect, QFM(AC) translates the qualitative attributes into quantitative scores which, when combined with the Fee scores, shall enable the most suitable firm that provides the best offer to be selected for award.

Quality Score

Q2. What are the weightages of the non-mandatory Quality attributes in the QFM for procurement of AC services?

A2. Agencies have the flexibility to decide the weightage for the non-mandatory Quality attributes within the Quality component. The weightage can be set between 40% to 60%. The details of the non-mandatory Quality attributes can be found in section 5.1 of the framework guide.

Q3. Why is design experience as a QP a suggested attribute in the quality component for procurement of AC services?

A3. The basic requirement for an AC is to have at least 10 years of practical experience in design or construction of buildings as a registered Professional Engineer (PE). Having relevant up-to-date design/construction experience as a QP is essential in ensuring that the ACs keep up with the latest construction technology or new construction materials so that their checks can be relevant and efficient in pin-pointing the critical issues.

Submission Quality-Score

Q4. Accredited Checkers may receive Written Directions (WDs) that are to seek clarification on the technical issues that may not be clear in the ACs' submissions. How shall BCA ensure that these are not included in Submission Quality-score?

A4. Submission Quality-score (S-score) is assessed based on technical lapses found in AC's submissions verified through AC's response to the WDs, e.g. missing checks, missing details and information in drawings, mistakes in design checks found in AC's checks. For WDs that seek AC's clarification on technical issues, it shall not count towards the S-score if the AC could clarify with BCA satisfactorily.

The S-score shall eventually form part of the Q-score under the quality attribute. Like the Quality-score which aims to recognise ACs with better quality attributes, such as competency, expertise and resources, S-score also aims to recognise ACs that have good quality structural plans submissions. Higher S-score shall be awarded to ACs with less technical lapses found in their submissions.

80% Fee Cap Formula

Q5. What is reason for introducing the 80% fee cap formula?

A5. The 80% fee cap formula is a mechanism to discourage fee diving behaviour among tenderers. This is similar to the mechanism that has been in place in the Quality Fee Method (QFM).



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QUALITY FEE METHOD FOR ACCREDITED CHECKING SERVICES FRAMEWORK

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