

EVALUATION GUIDELINES  
FOR  
**Procurement of Works**  
(Above Nu. 5 Million)



Royal Government of Bhutan  
Ministry of Finance

2019

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## **PREFACE**

Procurement under projects financed by the Royal Government of Bhutan is carried out in accordance with policies and procedures laid down in the *Procurement Rules and Regulations*.

The Evaluation Guidelines have been prepared for use by Employers in the evaluation of bids for Procurement of Works of value more than Ngultrum five (5) million.

To obtain further information you may contact:  
Government Procurement and Property Management Division  
Department of National Properties  
Ministry of Finance

## **Point based system for contractor selection**

# **INTRODUCTION**

With the implementation of the five-year development plans, procurement of works, goods and services have increased by manifolds in the last five decades. During the 11<sup>th</sup> Five Year Plan (FYP), capital budget was Nu 109 billion which was used for procurement of works, goods and services which accounts for 15% of GDP. In the 12<sup>th</sup> FYP the estimated capital outlay is Nu. 116 billion. Bhutan can thus be seen to be at an inflexion point from the point of view of its infrastructure development. In order to best utilize this massive outlay and to ensure that the citizens of the country receive good quality infrastructure that can facilitate the social and economic development of the country, it is important that process of contracting and execution of construction works is most efficient. This will go a long way in ensuring that the most suited contractor for a particular work is selected to perform the works. The first step in this direction is to design a system that can evaluate contractors on parameters most critical in achieving good performance in Bhutan's construction sector context, and at the same time, can give incentives to the contractors to adopt some of the best practices that will help in development of the sector in general.

This document describes a point based scoring system for selecting and awarding the work to the contractor most suited to perform a given construction work. The system has been designed to evaluate a contractor on a combination of technical and financial parameters. While the financial parameter comprises financial bid quoted by the contractor and price preference parameters, the technical parameters comprise of several measures like manpower, equipment, financial capacity, organizational status of the contractor company and so on, on all of which a contractor gets scores based on his level of achievement. At the end, the contractor qualifying on the technical score and getting the highest price preference-financial score is awarded the contract.



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## 1. Introduction to the Point Based System of Evaluation

The point based system is a two stage system:-

### (i) 1<sup>st</sup> Stage: Bidder Qualification

In this stage, the bidder needs to qualify on a set of qualification criteria in order to be considered for award of work. These qualification parameters can broadly be divided into the following two categories (along with their share of points):

1. *Capability (70 points)*
2. *Capacity (30 points)*

The qualification parameters used for qualification in the first stage totals to a maximum score of 100 points. A bidder needs to obtain a score of at least 70 points out of 100 on these parameters in order to qualify for the next stage.

### Summary Table of 1<sup>st</sup> Stage

Sl. No	Parameters	Level of Achievement	Score
1	<b>BIDDER QUALIFICATION</b>		
1.1	<b>CAPABILITY</b>		
a)	Similar Work Experience(0-10)  Aggregate size of similar contracts (max 3) in the last 5 calendar yrs  <b>OR</b>  Size of the largest similar contract executed in the last 5 calendar yrs	<ul style="list-style-type: none"><li>• ≥ 175% of current project size</li><li>• 125 – 175% of current project size</li><li>• 75 – 125% of current project size</li><li>• &lt; 75% of current project size</li></ul> <ul style="list-style-type: none"><li>• ≥ 100% of current project size</li><li>• 70 – 100% of current project size</li><li>• 50 – 70% of current project size</li><li>• &lt; 50% of current project size</li></ul>	<ul style="list-style-type: none"><li>• 10</li><li>• 8</li><li>• 4</li><li>• 0</li></ul> <ul style="list-style-type: none"><li>• 10</li><li>• 8</li><li>• 4</li><li>• 0</li></ul>



Sl. No	Parameters	Level of Achievement	Score
b)	Access to equipment (0-25)	Total score for equipments out of a score of 100 to be scaled down to 25	
c)	Availability of skilled manpower (0-25)	Total score for skilled manpower out of a score of 100 to be scaled down to 25	
d)	Average performance score from previous work (past 5 calendar years)	<ul style="list-style-type: none"> <li>• 100%</li> <li>• 1 mark lesser for every 5% point decrease in score rounded off to lower 5%</li> <li>• &lt; 55%</li> </ul>	<ul style="list-style-type: none"> <li>• 10</li> <li>• 0</li> </ul>
<b>1.2</b>	<b>CAPACITY</b>		
a)	Bid Capacity (0-25)  $*BC = 2 * A * N - B$	<ul style="list-style-type: none"> <li>• Bid Capacity <math>\geq</math> quoted bid</li> <li>• Bid Capacity is between 80 – 100% quoted bid</li> <li>• Bid Capacity is between 60 – 80% quoted bid</li> <li>• Bid Capacity is between 40 – 60% quoted bid</li> <li>• Bid Capacity &lt; 40% quoted bid</li> </ul>	<ul style="list-style-type: none"> <li>• 25</li> <li>• 20</li> <li>• 15</li> <li>• 10</li> <li>• 0</li> </ul>
b)	Credit line available (unused)(0-5)	<ul style="list-style-type: none"> <li>• <math>\geq</math> 100% of estimated 3 month project cash flow</li> <li>• 80 – 100% of estimated 3 month project cash flow</li> <li>• 60 – 80% of estimated 3 month project cash flow</li> <li>• &lt;60% of estimated 3 month project cash flow</li> </ul>	<ul style="list-style-type: none"> <li>• 5</li> <li>• 4</li> <li>• 2</li> <li>• 0</li> </ul>
		END OF STAGE 1 out of a score of 100	

\* Where      A = Average turnover of the contractor over the last 3 calendar years  
                   N = Estimated duration of the project to be tendered  
                   B = Portion of other ongoing works to be completed in the period that overlaps with the current project's duration (that is, N)

## (ii) 2<sup>nd</sup> Stage: Bid Evaluation

The qualified bids are then evaluated on a set of price preference parameters and financial parameters. The price preference parameters account for a weight of 10% while the financial parameter (which is linked to the financial bid submitted by the contractor) account for a weight of 90% in the overall score. These Price Preference parameters can broadly be divided into two categories given as following (along with their share of points):

## Summary Table of 2<sup>nd</sup> Stage

Sl. No	Parameters	Level of Achievement	Score
<b>2</b>	<b>BID EVALUATION</b>		
a)	Status (incorporated, JV, proprietorship)	<ul style="list-style-type: none"> <li>Incorporated company bidding alone</li> <li>Incorporated company as the lead partner (&gt;50% stake) in a bid by a joint venture</li> <li>Incorporated company as a non-lead partner (&lt;50% stake) in a bid by a joint venture</li> <li>Any other (proprietorship, partnership etc.)</li> </ul>	<ul style="list-style-type: none"> <li>40</li> <li>20</li> <li>10</li> <li>0</li> </ul>
b)	Employment of Bhutanese	<ul style="list-style-type: none"> <li>≥ 100% project workforce to be Bhutanese</li> <li>80 – 100% project workforce to be Bhutanese</li> <li>60-80% project workforce to be Bhutanese</li> <li>≤ 60% project workforce to be Bhutanese</li> </ul>	<ul style="list-style-type: none"> <li>60</li> <li>40</li> <li>20</li> <li>0</li> </ul>

The overall price preference – financial score is obtained by using the following formula for any qualified contractor (x):-

$$90 \times \frac{\text{(Lowest quoted bid among qualifying bids)}}{\text{Financial bid quoted by x}} + 10\% \text{ of the Preference Score of x}$$

The contractor getting the highest overall price preference-financial score is awarded the work.

## 2. Capability

These parameters test the bidder on their capability to execute the given work. Capability is defined as prior experience in doing works of similar nature and size, their ability to generate enough resources in form of manpower and equipment, and their performance track-record from previous works. Specifically, the parameters covered under this category are described below.

Parameters	Scoring
(a) Similar work experience	0 – 10
(b) Access to adequate equipment	0 – 25
(c) Availability of skilled manpower	0 – 25
(d) Average performance score from previous work*	0 - 10

### (a) Similar work experience (0-10 points)

This parameter evaluates the bidder on experience in executing works of similar nature and size. A contractor can score anywhere between 0 and 10 points based on the size of his similar work experience from the last 5 calendar years. That is, in order to be considered for award of points under this parameter, a previous work executed by a contractor must have had its completion date within the last 5 calendar years (including the year in which the work is being tendered).

In order to ensure a fair opportunity for the relatively young contractors who might not have had experience in executing a single similar work of significant size in the past, this parameter contains an option – ***that is, the contractor can either be evaluated on the size of a SINGLE largest similar work that (s) he might have executed in the past OR on the aggregate size of THREE similar works that (s) he might have executed in the past. The evaluation score for this parameter shall be auto-generated from the e-tool/CiNET based on the similar work experience information updated. The level of achievement for each scoring point varies between the two options.***

» **Scoring Pattern**

Parameter	Level of achievement	Score
Aggregate size of similar contracts (max 3) in the last 5 calendar yrs  OR	<ul style="list-style-type: none"> <li>• <math>\geq 175\%</math> of current project size</li> <li>• 125 – 175% of current project size</li> <li>• 75 – 125% of current project size</li> <li>• <math>&lt; 75\%</math> of current project size</li> </ul>	<ul style="list-style-type: none"> <li>• 10</li> <li>• 8</li> <li>• 4</li> <li>• 0</li> </ul>
Size of the largest similar contract executed in the last 5 calendar yrs	<ul style="list-style-type: none"> <li>• <math>\geq 100\%</math> of current project size</li> <li>• 70 – 100% of current project size</li> <li>• 50 – 70% of current project size</li> <li>• <math>&lt; 50\%</math> of current project size</li> </ul>	<ul style="list-style-type: none"> <li>• 10</li> <li>• 8</li> <li>• 4</li> <li>• 0</li> </ul>

» **Illustrative Example**

Consider three contractors – X, Y, Z – who have executed works of the following sizes in the last 5 calendar years (last being the current year in which the work is being tendered)

Contractor	X	Y	Z
Year 1	30	0	70
Year 2	<u>45</u>	0	65
Year 3	35	80	75
Year 4	<u>40</u>	0	80
Year 5	<u>50</u>	85	65
Size of <b>single largest</b> work in last 5 years	<b>50</b>	<b>85</b>	<b>80</b>
<b>Aggregate size of 3 largest</b> works in last 5 years	= 50 + 45 + 40 <b>= 135</b>	= 85 + 80 + 0 <b>= 165</b>	= 80 + 75 + 70 <b>= 225</b>

Now assume that the current project size is **70 million**. Then, according to the point table given earlier, the points obtained by X, Y, Z according to the two choices explained above will be as follows (underlined points are the ones that will finally be awarded in the evaluation for this parameter):

Contractor	Aggregate size of 3 largest works	Size of single largest work
<b>X</b>	<u>10</u> ( $>175\%$ of current project size)	<b>8</b> (70% - 80% of the current project size)
<b>Y</b>	<u>10</u> ( $>175\%$ of the current project size)	<b>10</b> ( $>100\%$ of the current project size)
<b>Z</b>	<u>10</u> ( $>175\%$ of the current project size)	<b>10</b> ( $>100\%$ of the current project size)

## » Documents Required

Bidders shall produce and update the information on similar work experience with following documents in the e-tool/CiNET in order to be evaluated and awarded points on this parameter:

1. Completion certificate of the single largest work of similar kind executed in the last 5 calendar years **OR** completion certificates of no more than 3 works of similar kind executed in the last 5 calendar years (works whose completion date is within the last 5 calendar years, including the current one)

### Key points to remember

1. All slabs in the level of achievement are inclusive of the lower limit, not the upper limit
2. Points will be awarded to the contractor based on the completion certificate submitted. If certificates for 3 biggest works are submitted then scoring should be done according to "Aggregate size of similar contracts (max 3) in the last 5 calendar yrs". If certificate for only one work is submitted then scoring should be done according to "Size of the largest similar contract executed in the last 5 calendar yrs"
3. If contractor submits completion certificates for 2 works, the aggregate of those two works should be considered
4. If contractor submits completion certificates for more than 3 works, then the 3 largest works should be considered and their aggregate should be scored.
5. Partially completed works will NOT be considered for award of points under this parameter

### (b) Access to adequate equipment (0-25 points)

This parameter evaluates contractors on their access to the necessary nature and number of equipments required for the timely and quality execution of the work. A contractor can score anywhere between 0 and 25 points on this parameter indicating the high importance of this criterion in the overall system.

The procuring agency at the time of document preparation will specify the type and number of equipments required for the execution of the work. The contractor's equipment commitment will then be evaluated against the requirement and given points accordingly.

The procuring agency has to allocate points to each equipment based on its importance in the execution of the work. The total point to be allocated is 100. These 100 points should be allocated as follows:

- Equipments of **Tier-I** importance: **50 points**
- Equipments of **Tier-II** importance: **30 points**
- Equipments of **Tier-III** importance: **20 points**

The procuring agency should allocate points equally amongst the equipments falling under same tier. For example, three equipments under tier-II shall carry 10 points each, total not exceeding 30 points.

Following are the guidelines for scoring on equipment:

- Total marks out of 100 to be scaled down to 25
- Contractors will get 100% marks if the equipment is owned and 75% marks if the equipment is hired.
- Contractors will get marks in proportion to the number of equipment committed by them.

For example

Tier	Equipment	Points allocation	Type	Score obtained
Tier I	Excavator	25	owned	25 (100%)
Tier I	Excavator	25	hired	18.75 (75%)

An **illustrative list** of equipments under different tiers is given below. PLEASE NOTE that this is just an example. Actual list of equipments required under each tier should be based on the procuring agency's need and the nature of the work.

Nature of work	Tier-I	Tier-II	Tier-III
<b>Road construction</b>	Excavator	Road roller, Paver, Vibrator	Air compressor, Tipper trucks, survey equipment
<b>Building construction</b>	Bull-dozer, Concrete-mixer	Shuttering set, Crane truck, Dumper truck	Air compressor, Survey equipment
<b>Road resurfacing</b>	Road roller	Vibrator, Sprayer	Air compressor, Tipper trucks

### Illustrative Example

Consider the case of a 10 km road construction project.

**Step 1:** the procuring agency shall prepare the list of type and number of equipment required

Equipment	Number required
Excavator	2
Paver	3
Vibrator	3
Pneumatic road roller	1
Static road roller	2
Truck	4
Mechanical sprayer	2
Air compressor	1
Survey equipment	3

**Step 2:** the procuring agency shall decide the tier of importance for each equipment, considering the nature of the work

Equipment	Tier of importance
Excavator	Tier-I
Paver	Tier-II
Vibrator	Tier-II
Road roller	Tier-II
Truck	Tier-III
Mechanical sprayer	Tier-III
Air compressor	Tier-III
Survey equipment	Tier-III

**Step 3:** the total points for each tier (Tier I-50, Tier II-30 and Tier III-20) shall then be distributed equally amongst all the equipments falling under each of the tiers

Equipment	Tier of importance	Maximum marks
Excavator	Tier-I	50
Paver	Tier-II	10
Vibrator	Tier-II	10
Road roller	Tier-II	10
Truck	Tier-III	5
Mechanical sprayer	Tier-III	5
Air compressor	Tier-III	5
Survey equipment	Tier-III	5

**Step 4:** the equipment requirement specified in the tender documents will be in the following format

Tier	Equipment	Number required	Maximum marks
Tier I	Excavator	2	50
Tier II	Paver	3	10
	Vibrator	3	10
	Road roller	3	10
Tier III	Truck	4	5
	Mechanical sprayer	2	5
	Air compressor	1	5
	Survey equipment	3	5

Assume that a contractor has committed the following equipments in his bid

Equipment	Number required	Number committed	Owned/Hired
Excavator	2	1	Owned
Paver	3	3	1 Owned, 2 Hired
Vibrator	3	2	Owned
Road roller	3	2	Owned
Truck	4	4	2 Owned, 2 Hired
Mechanical sprayer	2	1	Hired
Air compressor	1	1	Hired
Survey equipment	3	3	Hired

According to above, the points scored by this contractor on each equipment will be as follows

Equipment	Number required	Number committed	% commitment	Maximum marks	Owned/ Hired	Points
Excavator	2	1	50%	50	Owned	50% of 50 = <b>25</b>
Paver	3	3	100%	10	Hired	100% of 10 = 10 75% for hiring = <b>7.5</b>
Vibrator	3	2	67%	10	Owned	67% of 10 = <b>6.7</b>
Road roller	3	2	67%	10	Owned	67% of 10 = <b>6.7</b>
Truck	4	4	100%	5	2 Owned, 2 Hired	100% of 5 = 5 100% for 2 owned = 2.5 75% for 2 hired = 1.875 Total = <b>4.375</b>
Mechanical sprayer	2	1	50%	5	Hired	50% of 5 = 2.5 75% for hired = <b>1.875</b>
Air compressor	1	1	100%	5	Hired	100% of 5 = 5 75% for hired = <b>3.75</b>
Survey equipment	3	3	100%	5	Hired	100% of 5 = 75% for hired = <b>3.75</b>
<b>Total equipment points</b>						<b>59.65</b>

These equipment points are out of 100. These will be scaled down to 25 for the final score on the equipment parameter.

Therefore, final score for this contractor on the equipment parameter =  $59.65/100 * 25 = 14.92 / 25$

#### » Documents Required

Along with the commitment of equipments, the contractors are required to submit the following documents:

1. Copy of the registration certificate of each equipment committed
2. Copy of Insurance policy for each equipment where applicable
3. In case of hiring, copy of the lease agreement in addition to 1 & 2 above
4. In case of equipments that do not require registration with RSTA copy of cash memos stamped by RRCO if newly imported or copy of sale deeds or verification letter issued by a Government Engineer.

#### Key points to remember

1. The equipment requirement list should be prepared by the procuring agency as described in step 1 to 4 in the above illustrative example. However, please note that the above example is only **illustrative** in nature. For each project, the procuring agencies should prepare their own equipment requirement list, which is **specific to that particular** project.
2. The hiring agreement produced by the contractor should be specific to the current project and not a general.
3. E-tool which is used for evaluation based on point based system will require the user to provide the registration numbers of each equipment committed by the contractor. E-tool will automatically generate an alarm if the equipment is already engaged in some other projects. This will help avoid a situation where the contractor might commit equipments that is already

being used in some other project and as a result will not be available for the current project. These equipments can be permitted to be used in the current project only if the project manager of the other project certifies that these equipments are no longer required for that project.

**(c) Availability of skilled manpower (0-25 points)**

An **illustrative list** of manpower requirements under different tiers is given below. *PLEASE NOTE that this is just an example.* Actual list of manpower required under each tier should be based on the procuring agency's need and the nature of the work.

This parameter evaluates contractors on their ability to deploy personnel with suitable qualifications and experience in order to ensure timely and quality execution of the work. A contractor can score between 0 and 25 points on this parameter indicating the high importance of this criterion in the overall system.

The procuring agency at the time of document preparation will specify the qualification and experience of key personnel required for the execution of the work. The contractor's manpower commitment will then be evaluated against the requirements and points awarded accordingly.

The procuring agency has to allocate points to each personnel based on its importance in the execution of the work. The total point to be allocated is 100. These 100 points should be allocated as follows:

- Personnel position of **Tier-I** importance: **50 points**
- Personnel position of **Tier-II** importance: **30 points**
- Personnel position of **Tier-III** importance: **20 points**

For each of the three personnel positions (of each importance tier) the minimum points will be 0 and the maximum will correspond to the tier of importance. That is, for tier-I position, minimum is 0, maximum is 50; for tier-II position, minimum is 0, maximum is 30; for tier-III position, minimum is 0, maximum is 20 points. Points in each tier will increase from minimum to maximum as the experience and qualification of the personnel improves. That is, in order to score higher points corresponding to any personnel position, a contractor will need to meet a higher requirement in terms of experience and qualification of the personnel as specified by the procuring agency.

Following are the guidelines for scoring on manpower:

- Total marks out of 100 to be scaled down to 25.
- The requirement of personnel of different positions under Tier I, Tier II and Tier III can vary from project to project. They may be Project Manager, Project Engineer, Site Supervisor; or Project Engineer, Deputy Project Engineer, Site Supervisor; or any other such combination.
- In cases, where the project does not have requirement of manpower in all three tier (that is there are only 2 key personnel and the rest is the labor force), there total point will be only 80 (Tier I and Tier II). Score out of 80 will then be scaled down to 25 to get the final score on the manpower parameter.



An **illustrative listing** of personnel positions with scoring of the corresponding points as explained above is given below. *PLEASE NOTE that this is just example.* Actual allocation of points should be based on the procuring agency's requirement and nature of project.

Tier of importance	Position	Qualification/Experience	Score
Tier – I	Project Manager	<ul style="list-style-type: none"> <li>• BE civil engineer with 10+ years of experience</li> <li>• BE civil engineer with 5-10 years of experience</li> <li>• BE civil engineer with less than 5 years of experience</li> <li>• Fresh graduate engineer with BE civil</li> <li>• Any other level of qualification or experience</li> </ul>	<ul style="list-style-type: none"> <li>• 50</li> <li>• 40</li> <li>• 30</li> <li>• 15</li> <li>• 0</li> </ul>
Tier – II	Project Engineer	<ul style="list-style-type: none"> <li>• BE civil engineer with more than 5 years of experience</li> <li>• Diploma engineer with more than 5 years of experience</li> <li>• Diploma engineer less than 5 years of experience</li> <li>• Any other level of qualification or experience</li> </ul>	<ul style="list-style-type: none"> <li>• 30</li> <li>• 20</li> <li>• 10</li> <li>• 0</li> </ul>
Tier – III	Site Supervisor	<ul style="list-style-type: none"> <li>• Diploma engineer with 3+ years of experience</li> <li>• Personnel with formal training certification from TTI and at least 5 years of experience</li> <li>• Fresh TTI graduate</li> <li>• Any other level of qualification or experience</li> </ul>	<ul style="list-style-type: none"> <li>• 20</li> <li>• 15</li> <li>• 10</li> <li>• 0</li> </ul>

#### » Illustrative Example

Consider the case of a 10 km road construction project.

**Step 1:** the procuring agency shall list down the key personnel with positions for each Tier

Tier	Personnel
Tier – I (most important)	Project Manager
Tier - II	Site Supervisor
Tier – III	Chief Foreman

**Step 2:** the procuring agency decides the **ideal** qualification and experience of the key personnel required. Ideal qualification and experience will be what the procuring agency believes will help deliver excellent quality and timeliness of the project.

Personnel	Ideal qualification & experience
Project Manager	BE civil engineer with more than 5 years of experience in relevant field
Site Supervisor	Diploma engineer with 5+ years of experience in relevant field
Chief Foreman	TTI graduate with more than 5 years of experience relevant field

**Step 3** the procuring agency has to allocate the total points of each Tier (Tier I-50, Tier II-30 and Tier III-20). The highest point in each tier has to be assigned to the ideal requirement listed in step 2. Then gradually reduce the requirement in terms of qualification and experience and assign points lesser than the maximum to each of these reduced requirements as illustrated below:

<b>Tier of importance</b>	<b>Position</b>	<b>Qualification/Experience</b>	<b>Score</b>
Tier – I	Project Manager	• BE civil engineer with more than 5 years of experience in relevant field	• 50
		• BE civil engineer with less 5 years of experience in relevant field	• 30
		• Diploma engineer with 5-10 years of experience in relevant field	• 15
		• Fresh graduate engineer with BE civil	• 10
		• Any other level of qualification or experience	• 0
Tier – II	Site Supervisor	• Diploma engineer with more than 5 years of experience in relevant field	• 30
		• Diploma engineer with 3-5 years of experience in relevant field	• 20
		• TTI graduate with more than 7 years of experience in relevant field	• 10
		• Any other level of qualification or experience	• 0
Tier – III	Chief Foreman	• TTI graduate with more than 5 years of experience in relevant field	• 20
		• TTI graduate with less than 5 years of experience in relevant field	• 15
		• Fresh TTI graduate	• 10
		• Any other level of qualification or experience	• 0

Now let's assume that a contractor has committed the following manpower in his bid

<b>Personnel</b>	<b>Qualification &amp; experience of contractor's personnel</b>
Project Manager	BE civil engineer with 8 years of experience in relevant field
Site Supervisor	Diploma engineer with 6 years of experience in relevant field
Chief Foreman	Fresh TTI graduate

According to above, the points scored by this contractor on manpower will be as follows

<b>Personnel</b>	<b>Qualification &amp; experience of contractor's personnel</b>	<b>Points scored</b>
Project Manager	BE civil engineer with 8 years of experience in relevant field	50
Site Supervisor	Diploma engineer with 6 years of experience in relevant field	30
Chief Foreman	Fresh TTI graduate	10
<b>Total manpower points</b>		<b>90</b>

These manpower points are out of 100. These will be scaled down to 25 for the final score on the manpower parameter.

Therefore, final score for this contractor on the manpower parameter =  $90/100 * 25 = 22.5/ 25$

#### » Documents Required

Along with the commitment of manpower, the contractors are required to submit the following documents:

1. Original signed CVs of technical manpower committed.
2. Copies of Citizenship ID Cards or work permit/ Passport/ Election/Voter ID cards (for foreign workers) of all manpower committed.
3. Copies of contract agreements with all personnel if they have been hired on contract by the contractor.
4. Copies of Provident Fund Account Documents for all regular personnel or payrolls or Copies of monthly remittance schedule of Health Contribution and Tax Deducted at Source for all regular personnel committed for this project.

#### Key points to remember

1. The manpower requirement list should be prepared by the procuring agency as described in step 1 to 3 in the above illustrative example. However, please note that the above example is only **illustrative** in nature. For each project, the procuring agencies should prepare their own manpower requirement list, which is **specific to that particular** project.
2. The contract agreement produced by the contractor for the committed manpower should be specific to the current project and not general.
3. E-tool which is used for evaluation based on point based system will require the user to provide the CID numbers of each personnel committed by the contractor. E-tool will automatically generate an alarm if the same person is already engaged in some other projects. This will help avoid a situation where the contractor might commit manpower that is already engaged in some other project and as a result will not be available for the current project. These people can be permitted to be used in the current project only if the project manager of the other project certifies that these people are no longer required in the other project. This will also avoid situations where multiple contractors commit the same people for a project.

#### (d) Average performance score from previous work (0-10 points)

This parameter gives points to the contractor based on its performance score in the last 5 calendar years. In the initial period when performance scores are not available, all contractors would be considered at their default performance score, that is, 100%. Similarly, if performance score for any contractor is not available because (s)he has not executed any project after the introduction of this system, the default score of 100% will be considered.

This score will diminish whenever a contractor defaults on any one of the parameters of performance (described later). For every project the contractor will obtain certain performance score. As a contractor executes more projects, this score will keep getting averaged over the number of projects executed. For any work that is about to be contracted, the average performance score of works performed by the contractor over the last 5 calendar years will be taken into account.

The 100% performance score will be composed of the following parameters:

1. *On-time completion (30%)*
2. *Quality of execution (70%)*

1. *On-time completion (30%)*

Scoring for this component of performance will be done by the site engineer of the implementing agency. A contractor can be penalized under this component if the contractor fails to deliver the project within the agreed original project duration or an extension (if any)

The site engineer can penalize the contractor upto 30%. The quantum of penalty could vary as following:

- **10% for a minor default**  
(if the final completion of the project is delayed by 10 - 15% as compared to original project duration or an extension, if any)
- **20% for a medium default**  
(if the final completion of the project is delayed by 15 - 25% as compared to original project duration or an extension, if any)
- **30% for a major default**  
(if the final completion of the project is delayed by 25% or more as compared to original project duration or an extension, if any)
- **Illustrative Example**  
Assuming that the estimated project duration for a particular project is 24 months and the contractor completes the project in 30 months. So the delay in the project is  
= (Actual completion time / Estimated duration time – 1) %  
= (30 / 24 – 1)  
= 25%

Since the delay is 25%, it qualifies as a major default. Therefore the penalty will be full 30%.

1. *Quality of execution (70%)*

The scoring on this component of performance will be done by the Site Engineer based on the Guidelines issued by Construction Development Board (CDB)

CDB will have the authority to determine the extent of deviation based on reports submitted by the site engineer

- Procuring agencies will be provided a kit of basic testing apparatus and equipment that the site engineers might use to cross-verify the results reported in the contractors' tests
- CDB will have the authority to conduct random audits and inspections on-site in cases including but not limited to those where it suspects a case of misrepresentation of results reported, collusion between site engineer and contractor, critical deviation reported by results, large size of the project

CDB will have the authority to determine the extent of corruption/fraudulent practice based on judgements passed by any of the investigating agencies.

The central repository of performance scores for contractors will be maintained by the Construction Develop Board (CDB) in an online format. CDB will also be authorized to conduct random audits and checks to ensure that the implementing agencies are submitting honest and true performance reports.

#### » Scoring Pattern

Parameter	Level of achievement	Score
Average performance score from previous work (past 5 calendar years)	<ul style="list-style-type: none"> <li>• 100%</li> <li>• 1 mark lesser for every 5% point decrease in score rounded off to lower 5%</li> <li>• &lt; 55%</li> </ul>	<ul style="list-style-type: none"> <li>• 10</li> <li>•</li> <li>• 0</li> </ul>

#### » Documents Required

Bidders shall produce and update the information on performance from every project with following documents in the e-tool/CiNET in order to be evaluated and awarded points on this parameter:

1. Performance Score from previous works (past 5 calendar years).

#### Key points to remember

1. In case of a joint venture executing a project, the same performance score applies to all JV partners for that project.
2. In giving score for timely completion, time compensations allowed due to scope changes are given due consideration. That is, the estimated duration is increased to account for time compensation.
3. The baseline for performance score is 100% for each contractor for each project. Marks are deducted only under the circumstances described above.

This sums up the scoring of 70 points under the “capability” category in the bidder qualification criteria. The next category is Capacity which carries total of 30 points.

### 3. Capacity

The capacity is a function of bid capacity and credit line available (unused).

Parameters	Scoring
Bid Capacity	0 – 25
Credit line available (unused)	0 – 5

#### (a) Bid Capacity (0-25 points)

This parameter evaluates the contractor’s capacity to take on additional work to what he/she is already doing. A contractor can score between 0 and 25 depending on the bid capacity in comparison to the quoted bid. This parameter is crucial in determining whether or not the contractor can successfully execute the tendered work taking into account the works in hand.

» **Scoring Pattern**

Parameter	Level of achievement	Score
Bid Capacity	• Bid Capacity $\geq$ quoted bid	• 25
	• Bid Capacity is between 80 – 100% quoted bid	• 20
	• Bid Capacity is between 60 – 80% quoted bid	• 15
	• Bid Capacity is between 40 – 60% quoted bid	• 10
	• Bid Capacity < 40% quoted bid	• 0

Bid capacity is calculated using the following formula:

$$\text{Bid Capacity} = 2 * A * N - B$$

Where A = Average turnover of the contractor over the last 3 calendar years

N = Estimated duration of the project to be tendered

B = Portion of other ongoing works to be completed in the period that overlaps with the current project's duration (that is, N)

» **Illustrative Example**

Steps in calculation of 'A'

**Step 1:** List all projects that the contractor has executed in the last 3 CALENDAR years

Assuming following are the projects he executed:

- (i) Project A – Nu 54 million, January 2007 to June 2008
- (ii) Project B – Nu 96 million, May 2007 to April 2009
- (iii) Project C – Nu 100 million, August 2008 to July 2010

**Step 2:** Obtain the value of each of these projects per month, calculated as the total size divided by the total duration (in months)

For the given projects, the value per month will be:

- (i) Project A – Nu 54 million / 18 months = Nu 3 million per month
- (ii) Project B – Nu 96 million / 24 months = Nu 4 million per month
- (iii) Project C – Nu 120 million / 24 months = Nu 5 million per month

**Step 3:** Arrange these projects clearly according to their timelines on a calendar for last 3 years

Project	2007												2008												2009												
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	
A																																					
B																																					
C																																					

**Step 4:** For each of the last 3 calendar years note the number of months for each project

In this case, it will be as follows:

2007

Project A – January to December = 12 months

Project B – May to December = 8 months

Project C – None = 0 months

2008

Project A – January to June = 6 months

Project B – January to December = 12 months

Project C – August to December = 5 months

2009

Project A – None = 0 months

Project B – January to April = 4 months

Project C – January to December = 12 months

**Step 5:** Now for each of the last 3 calendar years, obtain the total quantity of work as the sum of each projects value per month and its number of months for that particular year as follows:

2007

Total Value =  $(3 \times 12)_{\text{Project A}} + (4 \times 8)_{\text{Project B}} + (5 \times 0)_{\text{Project C}}$   
= Nu 68 million

2008

Total Value =  $(3 \times 6)_{\text{Project A}} + (4 \times 12)_{\text{Project B}} + (5 \times 5)_{\text{Project C}}$   
= Nu 91 million

2009

Total Value =  $(3 \times 0)_{\text{Project A}} + (4 \times 4)_{\text{Project B}} + (5 \times 12)_{\text{Project C}}$   
= Nu 76 million

**Step 6:** Inflate the total value from each year by 5% to bring it to the price levels of the current year  
In this case the values will be:

2007 = Nu 68 X  $(1.05)^2$  = Nu 68 X 1.1025 = Nu 74.97 million

2008 = Nu 91 X  $(1.05)^1$  = Nu 91 X 1.05 = Nu 95.55

2009 = Nu 76 million

**Step 7:** Calculate the average annual revenue A as an average of the total values of all the 3 years as follows:

**A =  $(74.97 + 95.55 + 76) / 3$  = Nu 82.2 million**

Calculation of 'N'

Estimated project duration will be calculated first in number of months and then converted to years by dividing by 12 and rounding off to the next higher multiple of 0.5

For example if the project is to run from April 2010 to June 2012, the project duration will be as following:

27 months, that is,  $27 / 12 = 2.25 \sim 2.5$  years

**Therefore N = 2.5**

### Steps in calculation of 'B'

Assuming the current project to be awarded is as follows:

Project E – Nu 250 million, April 2010 to March 2011

**Step 1:** List all ongoing projects that the contractor is currently executing

Let's assume these projects are as following:

(i) Project C – Nu 100 million, August 2008 to July 2010

(ii) Project D – Nu 72 million, January 2010 to December 2010

**Step 2:** Obtain the value of each of these projects per month, calculated as the total size divided by the total duration (in months)

For the given projects, the value per month will be:

(i) Project C – Nu 120 million / 24 months = Nu 5 million per month

(ii) Project D – Nu 72 million / 12 months = Nu 6 million per month

**Step 3:** Arrange these projects (including the current one) clearly according to their timelines on a calendar for the current and the next 2-3 years such that the duration of the current project (that is, N) is completely covered

Project	2010												2011											
	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
C																								
D																								
E																								

**Step 4:** Make note of the number of months of each ongoing works that overlap with the months of the current work as follows:

Project C – April 2010 to July 2010 = 4 months

Project D – April 2010 to December 2010 = 9 months

**Step 5:** Find the total value of overlapping ongoing works (B) as the sum of the product all overlapping periods and their corresponding monthly volumes

In this case overlapping ongoing work will be:

$$\begin{aligned} B &= (5 \times 4)_{\text{Project C}} + (6 \times 9)_{\text{Project D}} \\ &= \text{Nu } 74 \text{ million} \end{aligned}$$

Therefore **B = Nu 74 million**

Therefore, bid capacity will be as follows:

$$\begin{aligned} \text{Bid Capacity} &= 1.5 * 82.2 * 2.5 - 74 \\ &= \text{Nu } 234.25 \text{ million} \end{aligned}$$



Assume that quoted bid of this contractor for a project estimate of Nu 250 million, is Nu 252 million, the scoring for bid capacity will then be as following:

Parameter	Level of achievement	Score
Bid Capacity	$= 234.25 / 252$ $= 92.9\%$ $= 80 - 100\%$ of quoted bid	• 20

#### » Documents Required

Bidders shall produce and update the information on bid capacity with following documents in the e-tool/CiNET in order to be evaluated and awarded points on this parameter:

1. Completion certificates for all works having their completion dates in the last 3 calendar years (including the current year)
2. Award letters for all works having their start dates in the last 3 calendar years (including the current year)

#### Key points to remember

1. All slabs in the level of achievement are inclusive of the lower limit, not the upper limit
2. All works that have been completed or started by the contractor in the last 3 calendar years should be considered
3. However only the portion of these works that lie within the last 3 calendar years should be considered (using the method described in the illustrative example)
4. The duration of current project, that is N, should be rounded off to the next higher multiple of 6 months (or 0.5 years). It should not be any other number.
5. Irrespective of the start and end dates of ongoing works, as long as any portion of these works will be carried out by the contractor in the same period as that of the current project, they should be considered in calculation of 'B'
6. It is possible that the actual duration of the current project turns out to be more than the estimated duration, 'N'. In such a case the actual overlap between an ongoing work of the contractor and the current project may be more than what is calculated using the method given here. However, this should NOT be considered while calculating bid capacity. The reason for this is that it is impossible to know at the time of awarding a work whether it will be completed within the estimated duration or not. Therefore bid evaluation should be based only on information that we have at the time of evaluation, which is the estimated duration, 'N'. So the overlap should be checked for only with the estimated duration, 'N' without considering what the actual duration of the current project 'might finally be'.

#### (b) Credit line available (unused) (0-5 points)

This parameter evaluates the contractor's ability to raise credit from the financial institutions (FIs) to manage the working capital requirements of the project. The contractor will get a score based on a letter of credit from the FIs, wherein the amount of credit available to the contractor for the work to be awarded will be mentioned.

Level of achievement on this parameter will be judged in terms of months of project cash flow for which the credit is available. Months of project cash flow are calculated by dividing the project cost by the project duration. This gives the cash flow per month. The ideal credit line is considered to be of 3 months or more. Points are awarded depending on how close a contractor's credit is to this ideal limit.

## » Scoring Pattern

Parameter	Level of achievement	Score
Credit line available (unused)	<ul style="list-style-type: none"> <li>• <math>\geq 100\%</math> of estimated 3 month project cash flow</li> <li>• 80 – 100% of estimated 3 month project cash flow</li> <li>• 60 – 80% of estimated 3 month project cash flow</li> <li>• <math>&lt;60\%</math> of estimated 3 month project cash flow</li> </ul>	<ul style="list-style-type: none"> <li>• 5</li> <li>• 4</li> <li>• 2</li> <li>• 0</li> </ul>

## » Documents Required

Contractors should be required to furnish the following documents in order to be evaluated and awarded points on this parameter:

1. Letter of credit(in the format specified in bidding document) from the financial institutions in Bhutan certifying the availability of credit for that specific project

### Key points to remember

1. All slabs in the level of achievement are inclusive of the lower limit, not the upper limit
2. This sums up the scoring of 30 points under the “Capacity” category in the bidder qualification criteria.

All the bids which score 70 points out of 100 at this stage of Bidder Qualification are taken to the next stage of Bid evaluation.

## 4. Second Stage: Bid Evaluation

All contractors who obtain a score of 70 points or more on qualification criteria will be considered for evaluation in this stage.

All qualified bidders will then be evaluated on a set of price preference parameters. This score will be combined with their financial bid to obtain the overall price preference-financial score.

### 4.1. Price Preference Parameters:-

The price preference parameter is divided into two categories viz., Status and Employment of Bhutanese. This category of parameters evaluates the contractor on how well the contractor’s organization is set up & functioning and ability to offer employment opportunities for the Bhutanese in the Construction Sector. These parameters measure how robust the construction company is and how much is it contributing to the overall betterment of the sector in Bhutan.

Parameters	Scoring
a. Status (incorporated, proprietorship, JV etc.)	0 – 40
b. Employment of Bhutanese	0 – 60

#### (a) Status (Incorporated, JV, proprietorship) (0-40 points)

The objective for including this parameter is to build the organization as institution by encouraging incorporation and thereby strengthening their management.

» **Scoring Pattern**

Parameter	Level of achievement	Score
Status (incorporated, JV, proprietorship)	<ul style="list-style-type: none"> <li>• Incorporated company bidding alone</li> <li>• Incorporated company as the lead partner (&gt;50% stake) in a bid by a joint venture</li> <li>• Incorporated company as a non-lead partner (&lt;50% stake) in a bid by a joint venture</li> <li>• Any other (proprietorship, partnership etc.)</li> </ul>	<ul style="list-style-type: none"> <li>• 40</li> <li>• 20</li> <li>• 10</li> <li>• 0</li> </ul>

» **Documents Required**

Contractors should be required to furnish the following documents in order to be evaluated and awarded points on this parameter:

1. Copy of the certificate of incorporation along with updated CDB registration certificate in case an incorporated company bidding alone.
2. Joint-venture agreement between the contractor involved and copy of the certificate of incorporation along with updated CDB registration certificate for the incorporated partner in case two or more contractors are bidding together in a joint venture.

**(b) Employment of Bhutanese (0-60 points)**

This parameter is to give the contractors the benefit for employing Bhutanese in construction industry.

» **Scoring Pattern**

Parameter	Level of achievement	Score
Employment of Bhutanese	<ul style="list-style-type: none"> <li>▪ ≥ 100% project workforce to be Bhutanese</li> <li>▪ 80 – 100% project workforce to be Bhutanese</li> <li>▪ 60 – 80% project workforce to be Bhutanese</li> <li>▪ &lt;60% project workforce to be Bhutanese</li> </ul>	<ul style="list-style-type: none"> <li>▪ 60</li> <li>▪ 40</li> <li>▪ 20</li> <li>▪ 0</li> </ul>

» **Documents Required**

The contractor shall provide following details:

- » Provide a list of proposed Bhutanese committed for the Project:

» **Illustrative Example**

Following method may be followed while awarding points:

**Step 1:** Suppose the bidder commits that 65% of Project workforce to be Bhutanese. That is, x% = 65%

**Step 2:** As per the 'Scoring Pattern', the points scored by this bidder will be as follows:

Parameter	Level of achievement	Score
Employment Bhutanese	▪ 60 – 80% project workforce to be Bhutanese	▪ 20

## Key points to remember

1. Essentially, at the time of evaluation points are awarded based on commitment. This commitment is then enforced at the time of project execution

This sums up the “Price Preference Parameter” section at second stage evaluation. The Contractor will be given a score out of 100 for the two price preference parameters which will be scaled down to 10 in the next stage.

## 5. How to handle the case of joint ventures

For the purpose of awarding points to joint-venture bidders, the various parameters in the point based system can be divided into two categories – one, those parameters for which the individual credentials of the joint venture partners need to be averaged using their stake in the JV for the purpose of evaluation; and two, those parameters for which the resources or information committed / provided by the JV as a single entity will be considered for award of points. We now discuss which parameters will fall under each of these categories and how to score the JV on each of these.

The first category contains the following parameters:

- (a) Similar work experience
- (b) Performance score from previous work
- (c) Bid Capacity
- (d) Credit Line available

### (a) Similar work experience

Following guidelines should be used in scoring JVs on this parameter:

- (i) Since there is a choice involved on this parameter, the same choice should be used by the two or more partners of any JV. That is, information on EITHER the aggregate size of 3 similar works from the past OR size of the single largest similar work should be considered for ALL partners of in a JV
- (ii) Depending on the choice selected, as the first step, the aggregate size of 3 similar works of the size of the single largest similar work should be obtained using the method described in the illustrative example earlier.
- (iii) To obtain the final figure for similar work experience for the JV, the weighted average of their individual information should be considered by multiplying their work experience number by their % stake in the JV
- (iv) Documents required for evaluation on this parameter will still be the same. However this information should now be provided for all partners in a joint venture.
- (v) For example, say that there is a JV of 3 partners – A, B, C – where A holds a 30% stake, B holds 45% stake and C holds 25% stake. Now say, the single largest similar work done by A, B, C is Nu 50 million, Nu 70 million, and Nu 65 million respectively. Then their weighted average similar work experience will be
$$= 50 * 30\% + 70 * 45\% + 65 * 25\%$$
$$= \text{Nu 62. 75 million}$$

So while awarding the points on this parameter this figure should be used for comparison to the levels of achievement according to the scoring pattern

**(b) (Performance score from previous work**

As explained above for similar work experience, for performance score also the weighted average of the performance scores of individual contractors should be considered for award of points on this parameter.

**(c) Bid capacity**

- (i) Calculate the bid capacity of each partner in a joint venture according to the method described in the illustrative example for bid capacity
- (ii) Calculate the weighted average bid capacity of the JV by multiplying their individual bid capacities with their % stakes in the JV
- (iii) Use this weighted average bid capacity for comparison against the levels of achievement and award of points as per the scoring pattern
- (iv) Documents required for evaluation on this parameter will still be the same. However this information should now be provided for all partners in a joint venture.

**(d) (Credit line available**

- (i) Calculate the weighted average credit line available of the JV by multiplying their individual credit amounts (as specified in their letter of credit) with their % stakes in the JV
- (ii) Use this weighted average credit line and calculate the months of credit available as per the method described in credit line discussion earlier
- (iii) Use the levels of achievement as described in the scoring pattern to award points
- (iv) Documents required for evaluation on this parameter will still be the same. However this information should now be provided for all partners in a joint venture.

The second category consists of parameters for which a JV will commit resources as a single entity. No weighted average calculation will be required for these parameters. This category includes the following parameters:

- 1. Access to adequate equipment
- 2. Access to manpower
- 3. Status (incorporated, JV etc.)
- 4. Employment of Bhutanese

For all these parameters, the JV will make a joint commitment which will be evaluated for award of points. For example, the equipment committed could be owned or hired by either of the partners in the JV, but it will be consider to be committed jointly by the JV.

**6. Award of Work:**

This score (Price Preference Score) will be combined with the information based on their financial bid to obtain the overall Price Preference-financial score as given below:

$$0 \times \frac{\text{(Lowest quoted bid among qualifying bids)}}{\text{Financial bid quoted by x}} + 10\% \text{ of the Preference Score of x}$$

Work will be awarded to the contractor obtaining the highest overall price preference-financial score.