

**CLARIFICATION # 6**  
**FOR**  
**PROCUREMENT OF PLANT DESIGN, SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING**  
**OF**  
**LOT 1: LAPSIPHEDI-RATMATE-NEW HETAUDA 400kV D/C TRANSMISSION LINE**  
**LOT 2: RATMATE-NEW DAMAULI 400kV D/C TRANSMISSION LINE**  
**LOT 3: NEW DAMAULI-NEW BUTWAL 400kV D/C TRANSMISSION LINE (BASE) AND NEW BUTWAL -**  
**NEPAL/INDIA BORDER 400kV D/C TRANSMISSION LINE (OPTION)**

**Ref No: MCA-N/ETP/CB/003**

**Issued on: 24 March 2023**

SN	Questions from Bidders	Response of Millennium Challenge Account Nepal (MCA-Nepal)		
1.	<p>As per Clarification 5, point no 8 received:</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%; padding: 5px;"> <p>8. As per the bidding document part 2, B0, Annex B0, Annex 8 EIA document, Annex E "Transmission line details," E-2 Tower Characteristics Table, Foundation footprint given for each &amp; every location. Please confirm foundation foot print area given is considering tower back to back at ground level OR excavated foundation pit back to back. Please clarify.</p> </td> <td style="padding: 5px;"> <ol style="list-style-type: none"> <li>1. MCA-Nepal has issued the tentative area for each tower footprint through Addendum #2 to the Bidding document.</li> <li>2. The proposed towers to be accommodated within the footprint area.</li> <li>3. The area has been considered as excavated foundation pit back-to-back plus additional clearance in all sides to maintain proper slope for pits during excavation and movement of workers.</li> </ol> </td> </tr> </table> <p>While as per Clarification 5, point no 274 received:</p>	<p>8. As per the bidding document part 2, B0, Annex B0, Annex 8 EIA document, Annex E "Transmission line details," E-2 Tower Characteristics Table, Foundation footprint given for each &amp; every location. Please confirm foundation foot print area given is considering tower back to back at ground level OR excavated foundation pit back to back. Please clarify.</p>	<ol style="list-style-type: none"> <li>1. MCA-Nepal has issued the tentative area for each tower footprint through Addendum #2 to the Bidding document.</li> <li>2. The proposed towers to be accommodated within the footprint area.</li> <li>3. The area has been considered as excavated foundation pit back-to-back plus additional clearance in all sides to maintain proper slope for pits during excavation and movement of workers.</li> </ol>	<p>The proposed towers are to be accommodated within the footprint area. The area has been considered as excavated foundation pit back-to-back plus additional clearance in all sides to maintain proper slope for pits during excavation with minimum working space.</p> <p>Working space for the movement of construction workers and machinery shall be arranged by the Contractor at their own cost and time.</p>
<p>8. As per the bidding document part 2, B0, Annex B0, Annex 8 EIA document, Annex E "Transmission line details," E-2 Tower Characteristics Table, Foundation footprint given for each &amp; every location. Please confirm foundation foot print area given is considering tower back to back at ground level OR excavated foundation pit back to back. Please clarify.</p>	<ol style="list-style-type: none"> <li>1. MCA-Nepal has issued the tentative area for each tower footprint through Addendum #2 to the Bidding document.</li> <li>2. The proposed towers to be accommodated within the footprint area.</li> <li>3. The area has been considered as excavated foundation pit back-to-back plus additional clearance in all sides to maintain proper slope for pits during excavation and movement of workers.</li> </ol>			

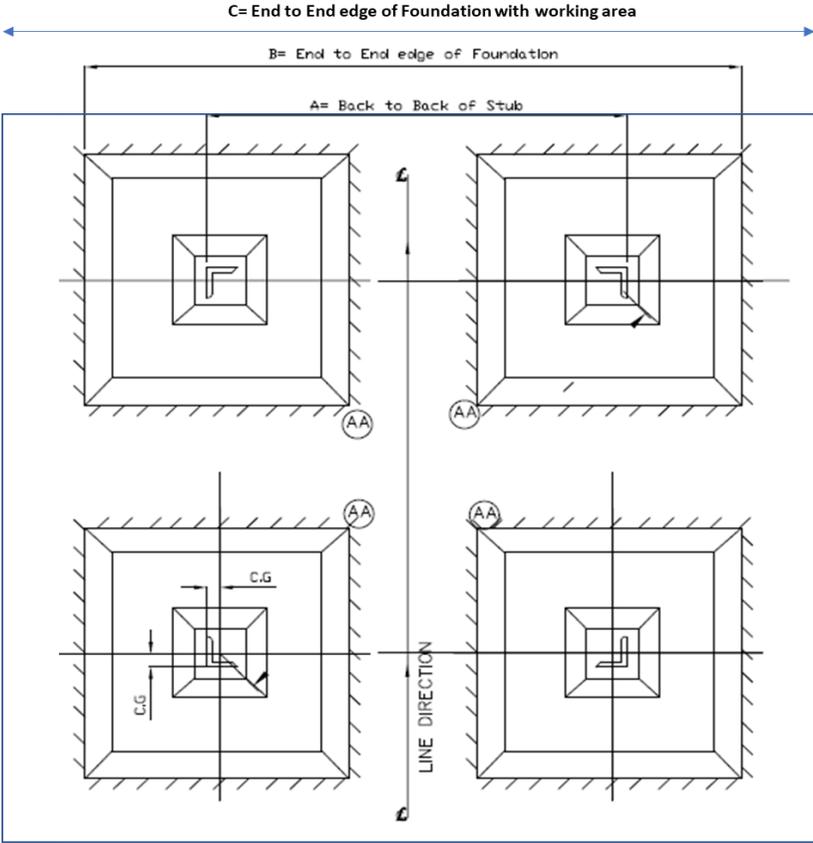
SN	Questions from Bidders		Response of Millennium Challenge Account Nepal (MCA-Nepal)
	<p>274. Clause No. Annex H2- Tower foot Print details</p> <p>Description Tower foundation Footprint calculation for various Type of Towers of various Height.</p> <p>Query Please confirm Footprints values mentioned for various tower are back to back distance of Tower stubs &amp; Diagonal Radius values mentioned are from center of tower on ground level upto back of stub.</p>	Confirmed	
2.	<p>As per clarification point no 8, footprint area is excavated foundation pit back-to-back plus additional clearance in all sides to maintain proper slope for pits during excavation and movement of workers. While as per Clarification point no 274, footprint area is back to back distance of tower stubs. Footprint area given in both the clarifications is contradictory, so please clarify the correct definition of footprint area.</p> <p>Moreover, movement of workers and machinery is temporary activity, so should not be considered in footprint area, as including this in the footprint area will decrease the allowable base width of the tower which in turn will increase the loads on the tower. So it is advisable to consider foundation pit back to back as footprint area.</p> <p>As per Clarification 3, point no 15 and Clarification 5, point no 266 received, it is mentioned that under broken wire condition, bidder has to consider tension corresponding to 75% wind pressure.</p> <p>However, we noticed again in clarification 5, point no 154, it is mentioned that under broken wire condition, bidder has to consider tension corresponding to 100% wind pressure which is contradicting to the acceptance of the above clarifications i.e., Clarification: 3 point 15 &amp; Clarification: 5 point 266.</p>		Please consider tension corresponding to 100% wind pressure.

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	<p>We presume it is a typo error and also It is prudent to follow IS 802:2015, 75% wind pressure for the the broken wire condition. Hence we are following as per IS802:2015 ,75% wind pressure in broken wire condition . Kindly confirm .</p>			
3.	<p>As per Clarification 5, point no 153 received:</p> <table border="1" data-bbox="282 427 1272 954"> <tr> <td data-bbox="282 427 808 954"> <p>153. Annex_B1-2. Final Design Report_2019-11-08, Cl:2.3 , Page 2.4</p> <p>150-year return period per IS 802 reliability Level 2</p> <ul style="list-style-type: none"> <li>• <math>VR = Vb / K0</math></li> <li>• <math>Vb = 47 \text{ m/s}</math> for wind zone 4</li> <li>• <math>K0 = 1.375</math> per IS 802 Section 8.2</li> <li>• <math>VR = 47 / 1.375 = 34.18 \text{ m/s}</math></li> <li>• <math>Vd = VR \times K1 \times K2</math></li> <li>• <math>K1 = 1.12</math> per IS 802 Table 2</li> <li>• <math>K2 = 1.0</math> per IS 802 Table 3</li> <li>• <math>Vd = 34.18 \times 1.12 \times 1.0 = 38.28 \text{ m/s}</math></li> </ul> <p>We understand that, Terrain Roughness coefficient has to be considered as 1.00 as per IS 802-Part1/Sec 1-2015 considering 150years return period. Please confirm.</p> </td> <td data-bbox="808 427 1272 954">Confirmed.</td> </tr> </table> <p>As per Technical Specification Section V-B1:</p> <p><b>5.A402.10. Option Consideration of Adjust Factor for Topography at Hills and Ridges</b>  In the base design phase, the requirements of IS-802 related to lines encountering hills and ridges were not considered despite the topographic variation along the transmission line route. Terrain Roughness Coefficient <math>K2 = 1.08</math> (Ref IS-802 Table 3) would be applicable to this project.</p> <p>Contractors shall use the appropriate Terrain Roughness Coefficient <math>K2</math>.</p> <p>Clarification 5, point no 220 received:</p>	<p>153. Annex_B1-2. Final Design Report_2019-11-08, Cl:2.3 , Page 2.4</p> <p>150-year return period per IS 802 reliability Level 2</p> <ul style="list-style-type: none"> <li>• <math>VR = Vb / K0</math></li> <li>• <math>Vb = 47 \text{ m/s}</math> for wind zone 4</li> <li>• <math>K0 = 1.375</math> per IS 802 Section 8.2</li> <li>• <math>VR = 47 / 1.375 = 34.18 \text{ m/s}</math></li> <li>• <math>Vd = VR \times K1 \times K2</math></li> <li>• <math>K1 = 1.12</math> per IS 802 Table 2</li> <li>• <math>K2 = 1.0</math> per IS 802 Table 3</li> <li>• <math>Vd = 34.18 \times 1.12 \times 1.0 = 38.28 \text{ m/s}</math></li> </ul> <p>We understand that, Terrain Roughness coefficient has to be considered as 1.00 as per IS 802-Part1/Sec 1-2015 considering 150years return period. Please confirm.</p>	Confirmed.	Confirmed
<p>153. Annex_B1-2. Final Design Report_2019-11-08, Cl:2.3 , Page 2.4</p> <p>150-year return period per IS 802 reliability Level 2</p> <ul style="list-style-type: none"> <li>• <math>VR = Vb / K0</math></li> <li>• <math>Vb = 47 \text{ m/s}</math> for wind zone 4</li> <li>• <math>K0 = 1.375</math> per IS 802 Section 8.2</li> <li>• <math>VR = 47 / 1.375 = 34.18 \text{ m/s}</math></li> <li>• <math>Vd = VR \times K1 \times K2</math></li> <li>• <math>K1 = 1.12</math> per IS 802 Table 2</li> <li>• <math>K2 = 1.0</math> per IS 802 Table 3</li> <li>• <math>Vd = 34.18 \times 1.12 \times 1.0 = 38.28 \text{ m/s}</math></li> </ul> <p>We understand that, Terrain Roughness coefficient has to be considered as 1.00 as per IS 802-Part1/Sec 1-2015 considering 150years return period. Please confirm.</p>	Confirmed.			

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	<p>220. <b>5. Clarification required against point 12 of Clarification-3 received from MCA, Nepal</b></p> <table border="1" data-bbox="342 277 775 549"> <tr> <td data-bbox="342 277 600 368">12. As per Table B1, page 29 of "Section V - Particular technical requirements, Employer's Requirement B1" Reference wind pressure under IS-802, Extreme wind case is 879 Pa. This is considering terrain category 2 as per IS 802 Table 4.</td> <td data-bbox="600 277 775 368">Consider terrain category 2 (wind pressure 879 Pa) with an additional factor of 1.08 (1.08 * 879 = 950 Pa) for sag tension and loading calculation.</td> </tr> <tr> <td data-bbox="342 368 600 459">Whereas per S.A402.10, Page 35 of "Section V - Particular technical requirements, Employer's Requirement B1", Terrain roughness coefficient, K2=1.08 would be applicable to this project. This is considering terrain category 1.</td> <td data-bbox="600 368 775 459">Confirm that 1.08 is also applicable for wind with ice loading condition as per IEC.</td> </tr> <tr> <td data-bbox="342 459 600 549">Please confirm bidder has to consider terrain category 2 (wind pressure 879 Pa) with an additional factor of 1.08 (1.08 * 879 = 950 Pa) for sag tension and loading calculation.</td> <td data-bbox="600 459 775 549"></td> </tr> </table> <table border="1" data-bbox="342 560 775 608"> <tr> <td data-bbox="342 560 600 608">Please confirm this 1.08 additional factor also applicable for wind with ice loading condition as per IEC.</td> <td data-bbox="600 560 775 608"></td> </tr> </table> <p>1.08 factor is on wind speed. For wind pressure this will be 1.08*1.08. Please confirm that wind pressure to be increase by 1.08 * 1.08 = 1.1664 for sag tension calculation. (i.e. 879 * 1.1664 = 1025.2656)</p>	12. As per Table B1, page 29 of "Section V - Particular technical requirements, Employer's Requirement B1" Reference wind pressure under IS-802, Extreme wind case is 879 Pa. This is considering terrain category 2 as per IS 802 Table 4.	Consider terrain category 2 (wind pressure 879 Pa) with an additional factor of 1.08 (1.08 * 879 = 950 Pa) for sag tension and loading calculation.	Whereas per S.A402.10, Page 35 of "Section V - Particular technical requirements, Employer's Requirement B1", Terrain roughness coefficient, K2=1.08 would be applicable to this project. This is considering terrain category 1.	Confirm that 1.08 is also applicable for wind with ice loading condition as per IEC.	Please confirm bidder has to consider terrain category 2 (wind pressure 879 Pa) with an additional factor of 1.08 (1.08 * 879 = 950 Pa) for sag tension and loading calculation.		Please confirm this 1.08 additional factor also applicable for wind with ice loading condition as per IEC.		<p>Confirmed.</p>
12. As per Table B1, page 29 of "Section V - Particular technical requirements, Employer's Requirement B1" Reference wind pressure under IS-802, Extreme wind case is 879 Pa. This is considering terrain category 2 as per IS 802 Table 4.	Consider terrain category 2 (wind pressure 879 Pa) with an additional factor of 1.08 (1.08 * 879 = 950 Pa) for sag tension and loading calculation.									
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Please confirm this 1.08 additional factor also applicable for wind with ice loading condition as per IEC.										
4.	<p>As per Clarification 5-point no. 220 &amp; as per <b>Specification</b>, it is clear that Terrain Roughness Coefficient (K2) to be considered is 1.08. However, in Clarification 5 point no 153, Terrain Roughness Coefficient (K2) to be considered is 1.00 which is contradictory.</p> <p>Please confirm bidder has to follow Terrain Roughness coefficient (K2) as 1.08 as per technical specification.</p> <p>As per Clarification 5, point no 264, it is mentioned that for calculating wind load on tower drag coefficient to be considered as per IS 802-1995. However as per Clarification 5, point no 150, it is mentioned that for calculating wind load on tower drag coefficient to be considered as per IEC standard which is contradictory.</p> <p>Please confirm bidder has to consider drag coefficient values as per IS 802-1995.</p>	<p>For calculating wind load on tower, drag coefficient to be considered as per IEC standard.</p>								

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5.	<p>As per Clarification 5, point no 225 received, everyday temperature provided is 20°C</p> <table border="1" data-bbox="282 245 1272 906"> <tr> <td data-bbox="282 245 801 906"> <p>225. Tower alignment schedule attached under Section V-B1, Annex H1 Reference Clause: Tower alignment schedule attached under Section V-B1, Annex H1 Bidder's Query: Please confirm the maximum, minimum, every day and ambient temperatures for the line. CLARIFICATION # 3 FOR PROCUREMENT OF PLANT DESIGN, SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF LOT 1: LAPSIPHEDI-RATMATE-NEW HETAUDA 400KV D/C TRANSMISSION LINE LOT 2: RATMATE-NEW DAMAULI 400KV D/C TRANSMISSION LINE LOT 3: NEW DAMAULI-NEW BUTWAL 400KV D/C TRANSMISSION LINE (BASE) AND NEW BUTWAL -NEPAL/INDIA BORDER 400KV D/C TRANSMISSION LINE (OPTION) Ref No: MCA-N/ETP/CB/003 In response to the bidder's query, employer has clarified as below.</p> <table border="1" data-bbox="344 801 524 900"> <tr> <td>Max 32C</td> </tr> <tr> <td>Min -5C</td> </tr> <tr> <td>Everyday 20C</td> </tr> </table> </td> <td data-bbox="801 245 1272 906"> <p>This is to confirm that everyday temperature for sag tension calculation shall be 20C deg for conductor and shield wire.</p> </td> </tr> </table> <p>However as per Technical Specification <b>Section V-B1, under MCA-Nepal 400 kV ETP - Tension Limit Criteria</b>, Everyday Temperature provided is <b>32°C</b>. Moreover we has executed certain projects in this area, and everyday temperature considered during this project is 32°C. Please confirm everyday temperature to be considered in this project is <b>32°C</b>.</p>	<p>225. Tower alignment schedule attached under Section V-B1, Annex H1 Reference Clause: Tower alignment schedule attached under Section V-B1, Annex H1 Bidder's Query: Please confirm the maximum, minimum, every day and ambient temperatures for the line. CLARIFICATION # 3 FOR PROCUREMENT OF PLANT DESIGN, SUPPLY, DELIVERY, INSTALLATION, TESTING AND COMMISSIONING OF LOT 1: LAPSIPHEDI-RATMATE-NEW HETAUDA 400KV D/C TRANSMISSION LINE LOT 2: RATMATE-NEW DAMAULI 400KV D/C TRANSMISSION LINE LOT 3: NEW DAMAULI-NEW BUTWAL 400KV D/C TRANSMISSION LINE (BASE) AND NEW BUTWAL -NEPAL/INDIA BORDER 400KV D/C TRANSMISSION LINE (OPTION) Ref No: MCA-N/ETP/CB/003 In response to the bidder's query, employer has clarified as below.</p> <table border="1" data-bbox="344 801 524 900"> <tr> <td>Max 32C</td> </tr> <tr> <td>Min -5C</td> </tr> <tr> <td>Everyday 20C</td> </tr> </table>	Max 32C	Min -5C	Everyday 20C	<p>This is to confirm that everyday temperature for sag tension calculation shall be 20C deg for conductor and shield wire.</p>	<p>everyday temperature is 20°C.</p>
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Min -5C							
Everyday 20C							
6.	<p>As per Clarification 5, point no 155 &amp; 229, it is mentioned that for all wires broken, longitudinal tension for non terminal towers is 50% of wire tension at everyday temperature and nil wind condition, while longitudinal tension for terminal towers is 100% of wire tension at everyday temperature and nil wind condition.</p>	<p>Longitudinal tension for nonterminal towers is 50% of wire tension at everyday temperature and nil wind condition, while longitudinal tension for terminal</p>					

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	However, as per IS 802:2015 all wires broken condition is only for Anticascade condition with longitudinal tension, 100% of wire tension at everyday temperature with nil wind condition for terminal & non terminal towers. Please clarify our understanding is correct	towers is 100% of wire tension at everyday temperature and nil wind condition.																																																																																			
7.	<p>Technical Specification, Section V-B1 Table B1-1:</p> <p style="text-align: center;">Table B1-1 Design Loading Conditions for Tower Structures <sup>10</sup></p> <table border="1" data-bbox="277 395 1272 868"> <thead> <tr> <th rowspan="3">Loading Condition No. <sup>10</sup></th> <th rowspan="3">Objective</th> <th rowspan="3">Type of Tower</th> <th rowspan="3">Tower Type Label</th> <th rowspan="3">Load Case Description</th> <th colspan="8">Weather Conditions Reference for Design</th> <th rowspan="3">Cable Condition for Sag &amp; Tension</th> <th rowspan="3">Cable State for Objective <sup>5</sup></th> <th rowspan="3">No. of Cable Attachment Positions assumed Broken on one side (BWC) <sup>7</sup></th> </tr> <tr> <th colspan="4">Ref. Design Wind for Towers &amp; for Intact Cables <sup>4</sup></th> <th rowspan="2">Radial Ice cm</th> <th colspan="3">Ref. Design Wind on Cables while some BWC Condition <sup>4</sup></th> </tr> <tr> <th>Temp.</th> <th>Ref. ID</th> <th>Wind Direction</th> <th>Ref. Wind Pressure <sup>4</sup> (Pa)</th> <th>Wind Speed m/s</th> <th>Ref. ID</th> <th>Wind Pressure (Pa)</th> <th>Wind Speed m/s</th> </tr> <tr> <th>Column -&gt;</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> <th>11</th> <th>12</th> <th>13</th> <th>14</th> <th>15</th> <th>16</th> </tr> </thead> <tbody> <tr> <td>12</td> <td rowspan="2">Suspension</td> <td rowspan="2">DIA and DIB-ALT, DIC-ALT</td> <td rowspan="2">DIB, DIC</td> <td rowspan="2">Failure Containment Area-Crossing (Longitudinal Load Case)</td> <td rowspan="2">10° C</td> <td rowspan="2">-</td> <td rowspan="2">-</td> <td rowspan="2">0</td> <td rowspan="2">0</td> <td rowspan="2">-</td> <td rowspan="2">-</td> <td rowspan="2">0</td> <td rowspan="2">0</td> <td rowspan="2">Initial</td> <td rowspan="2">All Cables Broken on same tower side</td> </tr> <tr> <td>Strain</td> </tr> <tr> <td rowspan="2">12A</td> <td rowspan="2">Terminal</td> <td rowspan="2">D1D, D1E, D1F</td> <td rowspan="2">D1D, D1E, D1F</td> <td rowspan="2">Full DE along the Line route (Anchor tower along Route (like for line Entry at SS))</td> <td rowspan="2">32° C</td> <td rowspan="2">100% Pd</td> <td rowspan="2">0° 45°</td> <td rowspan="2">879</td> <td rowspan="2">38.28</td> <td rowspan="2">-</td> <td rowspan="2">100% Pd</td> <td rowspan="2">879</td> <td rowspan="2">38.28</td> <td rowspan="2">Final</td> <td rowspan="2">All Cables assumed Broken on same tower side</td> </tr> <tr> <td>Full Dead-End function (like Terminal)</td> </tr> </tbody> </table> <p>As per above table from Specification, <b>Anticascade condition</b> is to be considered for Suspension &amp; tension tower. However, as per <b>IS 802:2015</b>, <b>Anticascade condition</b> is not required for Suspension tower and only considered in tension towers. Hence we have not considered Anticascade condition for Suspension tower. Kindly confirm.</p>	Loading Condition No. <sup>10</sup>	Objective	Type of Tower	Tower Type Label	Load Case Description	Weather Conditions Reference for Design								Cable Condition for Sag & Tension	Cable State for Objective <sup>5</sup>	No. of Cable Attachment Positions assumed Broken on one side (BWC) <sup>7</sup>	Ref. Design Wind for Towers & for Intact Cables <sup>4</sup>				Radial Ice cm	Ref. Design Wind on Cables while some BWC Condition <sup>4</sup>			Temp.	Ref. ID	Wind Direction	Ref. Wind Pressure <sup>4</sup> (Pa)	Wind Speed m/s	Ref. ID	Wind Pressure (Pa)	Wind Speed m/s	Column ->	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	12	Suspension	DIA and DIB-ALT, DIC-ALT	DIB, DIC	Failure Containment Area-Crossing (Longitudinal Load Case)	10° C	-	-	0	0	-	-	0	0	Initial	All Cables Broken on same tower side	Strain	12A	Terminal	D1D, D1E, D1F	D1D, D1E, D1F	Full DE along the Line route (Anchor tower along Route (like for line Entry at SS))	32° C	100% Pd	0° 45°	879	38.28	-	100% Pd	879	38.28	Final	All Cables assumed Broken on same tower side	Full Dead-End function (like Terminal)	<b>Anti-cascade condition</b> is to be considered for Suspension & Tension tower.
Loading Condition No. <sup>10</sup>	Objective						Type of Tower	Tower Type Label	Load Case Description	Weather Conditions Reference for Design								Cable Condition for Sag & Tension	Cable State for Objective <sup>5</sup>	No. of Cable Attachment Positions assumed Broken on one side (BWC) <sup>7</sup>																																																																	
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8.	<p>Clarification Point 5 - It is confirmed, foot print area" has been considered as excavated foundation pit back-to-back plus additional clearance in all sides to maintain proper slope for pits during excavation and movement of workers."</p> <p>Further in Clarification Point 274 for query "Please confirm Footprints values mentioned for various tower are back to back distance of Tower stubs &amp; Diagonal Radius values mentioned are from center of tower on ground level upto back of stub." it is responded as confirm.</p>	MCA-Nepal is acquiring land as mentioned as "B" equal to end-to-end edge of foundation in the drawing (i.e. additional area for foundation slope has been considered with minimum working space). Remaining area required during construction activities shall be arranged by the Contractor at their own cost and time.																																																																																			

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	<p>Both the clarification are contradicting, as it does not clarify whether the working area is part of foot print. Please confirm as per below diagram the font print provided in addendum is B or C.</p>  <p>The diagram illustrates four cross-sectional views of a foundation structure. The top two views show the foundation with a central stub. Dimension lines indicate:     <ul style="list-style-type: none"> <li><b>C</b>: End to End edge of Foundation with working area (the outermost boundary).</li> <li><b>B</b>: End to End edge of Foundation (the boundary of the foundation itself).</li> <li><b>A</b>: Back to Back of Stub (the width of the central stub).</li> </ul>     Section lines AA-AA are shown across the views. The bottom two views show the foundation with a central stub and a central core. Dimension lines indicate:     <ul style="list-style-type: none"> <li><b>C.G.</b>: Center of Gravity (indicated by arrows pointing to the center of the stub and the core).</li> <li><b>LINE DIRECTION</b>: Indicated by a vertical arrow pointing downwards.</li> </ul> </p>	
9.	<p>Volume 1  A6. Technical Evaluation Framework  Under the criteria : The Technical Evaluation Framework for Scoring is as follows:  0 = Not meeting the requirements</p>	<p>When the requirement in 1.1 is “Ten years of General experience in the Design of Transmission lines and total points allocated for this “criterion is 2.</p>

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	<p>1 = Material deviation from the requirements  2 = Significant deviation from the requirements  3 = Marginal deviation from the requirements  4 = Meeting the requirements  4.3 = Marginally exceeding the requirements  4.7 = Significantly exceeding the requirements  5 = Outstandingly exceeding the requirements</p> <p>Under the table D. Technical Evaluation Criteria for each Lot, maximum score has been defined for each parameter.</p> <p>We understand that max score shall be proportionate to the score. For eg on 1.11.1 Ten years of General experience in the Design of Transmission lines, the maximum score is 2. For this parameter if the scoring is 4, then the score under this parameter will be <math>2 * (4/5) = 1.6</math>. Please confirm if this understanding is correct.</p>	<p>In this case, if a firm demonstrates that they have ten years of experience in the Design of Transmission Lines -which is "Meeting the Requirement" in the technical evaluation framework- then they will be getting <math>2 * (4/5) = 1.6</math> points</p>
10.	<p>Volume 1</p> <p>Please allow time extension by 4 weeks, considering the ambiguity in the design parameter and associated revision for these changes.</p>	<p>MCA-Nepal is considering extension of the submission deadline until 8 May 2023. Subjected to approval by the authority, MCA-Nepal will issue an addendum to the Bidding Document extending the deadline for submission.</p>
11.	<p>Section V - B1 Annexure-D</p> <p>OPGW Specification-Rev.1 Clause No. 2.2.5, (A) Page No. 24 &amp; Clause No. 3.1 (Notes) Sl. No. 11, Page No.32</p> <p>The OPGW design shall include the polynomial coefficients for stress strain and creep curves, used for sag and tension calculations in PLS-CADD or SAG10 software programs (SAG10 chart number). This can be provided in a WIR file format for PLS-CADD (In case the OPGW will be used as a OPT-NC (optical neutral conductor) or an OPT-PC (optical</p>	<p>Confirmed that for now you can submit the sag tension report using linear model WIR file of OPGW Cable without polynomial coefficients.</p>

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	<p>phase conductor), the WIR file should also include the following parameters: emissivity coefficient [-] (typical 0.5); solar absorption coefficient [-] (typical 0.5), and the heat capacity [Watt-s/ft-deg F] separate for outer strands and core). The polynomial coefficients for stress- strain curve, must be derived from actual stress-strain tests, performed per IEEE 1138 and IEC 60794 standards. The polynomial coefficient for creep curve must be derived from actual creep tests, performed per IEEE 1138 and IEC 61395.</p> <p>Existing Type Test having without WIR Files format of OPGW Cable. Hence, we shall provide the guarantee for perform Type Test on offered OPGW Cable for the generation of WIR file during execution stage. (To be done by Kinectrics, Canada with a lead time of 4 months). Hence, as of now we shall submit the sag tension report using linear model WIR file of OPGW Cable without polynomial coefficients.</p> <p>Kindly confirm if the same shall be accepted.</p>	
12.	<p><b>PART 1 BIDDING PROCEDURES</b></p> <p>Section III: Qualification and Evaluation Criteria</p> <p>As per Section III: Qualification and Evaluation Criteria "The insulator manufacturer shall have been in its business for the last ten (10) years. It shall have manufactured and supplied minimum 400,000 Disc insulators within the last five (5) years of 160KN rating or as per ANSI 52-8 and above."</p> <p>We understand the manufacturer, who manufactures both glass &amp; porcelain insulator and had manufactured and supplied minimum 400,000 Disc insulators of glass or/and Porcelain Disc insulator will be qualified for this bid. Please confirm.</p>	<p>It shall have manufactured and supplied minimum 100,000 Disc insulators of Glass within the last five (5) years. Subject to approval of the authority MCA-Nepal may issue an addendum to the Bidding document.</p>
13.	<p>Part 2/B1/Annex_B1/Annex B/Appendix1_Foundation Drawing/FDN-RET-WALL.DWG</p> <p>Protection for Tower footing /up-hill slope</p>	<p>Confirmed</p>

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	Please confirm can we construct breast wall instead of revetment against cut slope on uphill side of the tower sites wherever required as per site condition.	
14.	<p>As on date we have received 5 Clarifications and 4 Addendums for the said Tender and the most recent one is Clarification No 5 dated 16th March 2023 comprising of replies to 281 Queries both technical and commercial ones. Our observation to the subject Clarification letter No 5 issued is as mentioned below:</p> <ul style="list-style-type: none"> <li>i. Please refer to Sr. No 220 &amp; 262 of the said Clarification, wherein design wind pressure gets changed from -950Pa (879x1.08=950Pa) to 1255Pa (1.08x1.08x879) and Overload factor (OLF) is changed from Section V B1 of tender documents. In view of the said changes complete tower design and foundation volumes has to be redesigned.</li> <li>ii. You may refer to Sr. No 197 &amp; 244 of the said Clarification, wherein there is still a confusion regarding Silicon content in tower parts wherein there is a capping for the same in Sr No 197 however Sr. No 244 states ASTM A385 where there is no capping.</li> <li>iii. Please refer to Sr. No 157 of the said Clarification regarding geotechnical investigation for 30 KM section which is not yet provided to us by MCA Nepal as per the clarification issued, information regarding the same shall be provided to us soon. This is a vital information which shall determine soil strata for foundation work.</li> <li>iv. Please refer to Sr. No 211 of the said Clarification, we anticipate an addendum regarding form of Price Adjustment to be submitted along with Bid from MCA Nepal.</li> <li>v. Please refer to Sr. No 162 of the said Clarification, regarding Tower Beacon Lights wherein MCA Nepal shall issue an addendum regarding this.</li> </ul> <p>Apart from points mentioned above, replies to design/construction related queries for hardware fittings, OPGW, Conductor &amp; Glass Insulator in Clarification No 5 have resulted in change in design and therefore vendor/supplier shall take time to redesign and provide technical &amp;</p>	<p>MCA-Nepal is considering an extension of the submission deadline until 8 May 2023. Subjected to approval by the authority, MCA-Nepal will issue an addendum to the Bidding Document extending the deadline for submission.</p>

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	<p>commercial Offer. As already indicated and mentioned above in Clarification No 5 provided by MCA Nepal, we anticipate key data/inputs/addendum from MCA Nepal related to preparation of techno-commercial Offer specially related to soil data and other supply items. Moreover, in line with point i mentioned above, redesigning of towers and foundation volumes will take substantial time followed by preparation of Design proposal and other submittals.</p> <p>In view of the above-mentioned salient points highlighted, we request MCA Nepal to kindly issue all the remaining documents as cited in the earlier Clarifications &amp; Addendums received as on date and extend the Bid Submission further by about Four (6) weeks from the issuance of last clarification and/or addendum to enable Bidders to submit their Techno-commercial Offer after doing complete due diligence and incorporating complete Employer Requirements and changes as per Clarification Letters and Addendum.</p>	
15.	<p>230316 Clarification# 5 Transm Line for MCA approval_final_issued point no. 220 &amp; 263 and 230217 Clarification#3_Design and Build_Transmission Line point no 12.</p> <p>As per point no. 220, wind pressure to be considered for sag tension calculation is confirmed as <math>879 \times 1.08 \times 1.08 = 1025.2656</math> Pa. However, in point no. 263 wind pressure <math>879 \times 1.08 = 950</math> Pa is confirmed. The reply given is contradictory. Please confirm the wind pressure to be considered whether 950 Pa or 1025.26 Pa.</p> <p>Also, As per section V-B1 Employers Requirement clause 5.A402.10 it is mentioned that Contractors shall use the appropriate Terrain Roughness Coefficient K2. As per kmz file, the line route of this project falls in terrain category 3 as per terrain description given in IS 802 i.e. category includes built up areas &amp; forest areas. Please confirm.</p>	<p>The wind pressure to be considered is 1025.26 Pa Please use the Terrain Roughness Category as specified in V-B1 Employer's Requirement</p>

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16.	<p>230316 Clarification# 5 Transm Line for MCA approval_final_issued Point no- 139 As per reply to point no. 139, it is mentioned as the no. of quad circuit towers are 16 nos. instead of 18 nos. in New Butwal to New Damauli Section.</p> <p>However, as per revised tower schedule the number of quad circuit towers are only 2 nos. for Ratmate to New Hetauda line.</p> <p>For New Butwal to New Damauli Section there are no mentions of quad circuit towers. Please confirm the quantity for quad circuit towers and in which Lot / Section they are required.</p>	<p>All the information has been provided in addendum 4. Please refer to page 12 (tower number 1 to 16) and page 25 (tower number 142N and 143N).</p> <p>There is total 18 number of Quad towers. Out of these 18 numbers, 16 numbers are in Lot 3 (New Damauli to New Butwal section) and remaining 2 numbers are in Lot 1 (Ratmate to New Hetauda section)</p>
17.	<p>With reference to subject Transmission tenders invited by Millennium Challenge Account Nepal (MCA- Nepal), please find below our query related to realization of payment.</p> <p>a. In line with discussion had during Pre-Bid Meeting for the subject Tender, we understand that payment in USD shall be received in Bank Account in Bidders country. Kindly confirm whether our understanding is correct or not.</p> <p>Request you to kindly clarify the above clarification at the earliest.</p>	<p>After awarding the contract, MCA-Nepal will make the payments to the contractor in the bank account that is mentioned in the signed contract. As the Contractor's discretion, the Bank account can be in Nepal, outside Nepal or both.</p>