Schedule-Q



Concession Agreement -- Surkanda Devi Ropeway Project

## SCHEDULE -Q -(See Clause 23.2.1)

## TERMS OF REFERENCE FOR INDEPENDENT ENGINEER

## Scope

- These Terms of Reference for the Independent Engineer (the "TOR") are being specified pursuant to the Concession Agreement dated \*\*\* (the "Agreement"), which has been entered into 1.1 between the Authority and \*\*\*\* (the "Concessionaire") for construction operation and maintenance of ropeway facility between Kaddukhal and Surkhanda devi Temple ("Project") on bulld, operate and transfer (BOT) basis, and a copy of which is annexed hereto and marked as Annex-A to form part of this TOR.
- This TOR shall apply to construction, operation and maintenance of the Project, thereof, 1.2
- Definitions and Interpretation 2
- The words and expressions beginning with or in capital letters used in this TOR and not defined 2.1 herein but defined in the Agreement shall have, unless repugnant to the context, the meaning respectively assigned to them in the Agreement.
- References to Articles, Clauses and Schedules in this TOR shall, except where the context 2.2 otherwise requires, be deemed to be references to the Articles, Clauses and Schedules of the Agreement, and references to Paragraphs shall be deemed to be references to Paragraphs of this TOR.
- The rules of interpretation stated in Clauses 1.2, 1.3 and 1.4 of the Agreement shall apply, 2.3 mutatis mutandis, to this TOR.
- Role and functions of the Independent Engineer 3
- The role and functions of the Independent Engineer shall include the following: 3.1
  - review of the Drawings and Documents as set forth in Paragraph 4; (i)
  - review, inspection and monitoring of Construction Works as set forth in Paragraph 5; (ii)
  - conducting Tests on completion of construction and Issuing Completion/Provisional Certificate as set forth in Paragraph 5;
  - undertaking all other duties and functions in accordance with the Agreement (iv)

The Independent Engineer shall discharge its duties in a fair, impartial and efficient manner, consistent with the highest standards of professional integrity and Good Industry Practice

Development Period

Buring the Development Period, the Independent Engineer shall undertake a detailed review of Dawlings to be furnished by the Concessionaire along with supporting data, including the geo-technical and hydrological investigations, characteristics of materials from borrow areas and quarry sites, topographical surveys and traffic surveys. The Independent Engineer shall complete such review and send its comments/observations to the Authority and the Concessionaire within 15 (fifteen) days of receipt of such Drawings. In particular, such comments shall specify the

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conformity or otherwise of such Drawings with the Scope of the Project and Specifications and Standards.

- 4.2 The Independent Engineer shall review any modified Drawings or supporting Documents sent to it by the Concessionaire and furnish its comments within 7 (seven) days of receiving such Drawings or Documents.
- 4.3 The Independent Engineer shall review the Drawings sent to it by the Safety Consultant in accordance with Schedule-L and furnish its comments thereon to the Authority and the Concessionaire within 7 (seven) days of receiving such Drawings. The Independent Engineer shall also review the Safety Report and furnish its comments thereon to the Authority within 15 (fifteen) days of receiving such report.
- The Independent Engineer shall review the detailed design, construction methodology, quality assurance procedures and the procurement, engineering and construction time schedule sent to it by the Concessionaire and furnish its comments within 15 (fifteen) days of receipt thereof.
- Upon reference by the Authority, the Independent Engineer shall review and comment on the EPC Contract or any other contract for construction, operation and maintenance of the Project Facilities, and furnish its comments within 7 (seven) days from receipt of such reference from the Authority.

## 5 Construction Period

- 5.1 In respect of the Drawings, Documents and Safety Report received by the Independent Engineer for its review and comments during the Construction Period, the provisions of Paragraph 4 shall apply, mutatis mutandis.
- 5.2 The Independent Engineer shall review the monthly progress report furnished by the Concessionaire and send its comments thereon to the Authority and the Concessionaire within 7 (seven) days of receipt of such report.
- The Independent Engineer shall inspect the Construction Works and the Project once every month, preferably after receipt of the monthly progress report from the Concessionaire, but before the 20th (twentieth) day of each month in any case, and make out a report of such inspection (the "Inspection Report") setting forth an overview of the status, progress, quality and safety of construction, including the work methodology adopted, the materials used and their sources, and conformity of Construction Works with the Scope of the Project and the Specifications and Standards. In a separate section of the Inspection Report, the Independent Engineer shall describe in reasonable detail the lapses, defects or deficiencies observed by it in the construction of the Project. The Inspection Report shall also contain a review of the maintenance of the Project in conformity with the provisions of the Agreement. The Independent Engineer shall send a copy of its Inspection Report to the Authority and the Concessionalre within 7 (seven) days of the inspection.

Independent Engineer may inspect the Project more than once in a month if any lapses, defects or deficiencies require such inspections.

For determining that the Construction Works conform to Specifications and Standards, the independent Engineer shall require the Concessionaire to carry out, or cause to be carried out, sample basis, to be specified by the Independent Engineer in accordance with Good Industry Practice for quality assurance.

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- 5.6 The tests shall be undertaken on a random sample basis and shall be in addition to, and independent of, the tests,that may be carried out by the Concessionaire for its own quality assurance in accordance with Good Industry Practice.
- In the event that the Concessionaire carries out any remedial works for removal or rectification of any defects or deficiencies, the Independent Engineer shall require the Concessionaire to carry out, or cause to be carried out, tests to determine that such remedial works have brought the Construction Works into conformity with the Specifications and Standards, and the provisions of this Paragraph 5 shall apply to such tests.
- In the event that the Concessionaire fails to achieve any of the Project Milestones, the Independent Engineer shall undertake a review of the progress of construction and identify potential delays, if any. If the Independent Engineer shall determine that completion of the Project is not feasible within the time specified in the Agreement, it shall require the Concessionaire to indicate within 15 (fifteen) days the steps proposed to be taken to expedite progress, and the period within which the Project Completion Date shall be achieved. Upon receipt of a report from the Concessionaire, the Independent Engineer shall review the same and send its comments to the Authority and the Concessionaire forthwith.
- If at any time during the Construction Period, the Independent Engineer determines that the Concessionaire has not made adequate arrangements for the safety of workers and Users in the zone of construction or that any work is being carried out in a manner that threatens the safety of the workers and the Users, it shall make a recommendation to the Authority forthwith, identifying the whole or part of the Construction Works that should be suspended for ensuring safety in respect thereof.
- In the event that the Concessionaire carries out any remedial measures to secure the safety of suspended works and Users, it may, by notice in writing, require the Independent Engineer to inspect such works, and within 3 (three) days of receiving such notice, the Independent Engineer shall inspect the suspended works and make a report to the Authority forthwith, recommending whether or not such suspension may be revoked by the Authority.
- 5.11 If suspension of Construction Works is for reasons not attributable to the Concessionaire, the Independent Engineer shall determine the extension of dates set forth in the Project Completion Schedule, to which the Concessionaire is reasonably entitled, and shall notify the Authority and the Concessionaire of the same.
- The Independent Engineer shall carry out, or cause to be carried out, all the Tests specified in Schedule-I and issue a Completion Certificate or Provisional Certificate, as the case may be. For carrying out its functions under this Paragraph 5.12 and all matters incidental thereto, the Independent Engineer shall act under and in accordance with the provisions of Article 14 and Schedule-I.
- 5.13 Upon reference from the Authority, the Independent Engineer shall make a fair and reasonable assessment of the costs of providing information, works and services as set forth in Article 16 and pertify the reasonableness of such costs for payment by the Authority to the Concessionaire.
- 5.14 The Independent Engineer shall aid and advise the Concessionaire in preparing the Maintenance

Operation Period

6.1 In respect of the Drawings, Documents and Safety Report received by the Independent Engineer for its review and comments during the Operation Period, the provisions of Paragraph 4 shall apply, mutatis mutandis.

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- The Independent Engineer shall review the annual Maintenance Programme furnished by the Concessionaire and send its comments thereon to the Authority and the Concessionaire within 15 6.2 (fifteen) days of receipt of the Maintenance Programme.
- Determination of costs and time 7
- The Independent Engineer shall determine the costs, and/or their reasonableness. 7.1 that are required to be determined by it under the Agreement.
- The Independent Engineer shall determine the period, or any extension thereof, that is required to 7.2 be determined by it under the Agreement.
- Assistance in Dispute resolution 8
- When called upon by either Party in the event of any Dispute, the Independent Engineer shall 8.1 mediate and assist the Parties in arriving at an amicable settlement.
- In the event of any disagreement between the Parties regarding the meaning, scope and nature of Good Industry Practice, as set forth in any provision of the Agreement, the Independent 8.2 Engineer shall specify such meaning, scope and nature by issuing a reasoned written statement relying on good industry practice and authentic literature
- Other duties and functions 9

The Independent Engineer shall perform all other duties and functions specified in the Agreement.

- Miscellaneous 10
- The Independent Engineer shall notify its programme of inspection to the Authority and to the Concessionaire, who may, in their discretion, depute their respective representatives to be 10.1 present during the inspection.
- A copy of all communications, comments, instructions, Drawings or Documents sent by the Independent Engineer to the Concessionaire pursuant to this TOR, and a copy of all the test 10.2 results with comments of the Independent Engineer thereon shall be furnished by the Independent Engineer to the Authority forthwith.
- The Independent Engineer shall obtain, and the Concessionaire shall furnish in two copies thereof, all communications and reports required to be submitted, under this Agreement, by the 10.3 Concessionaire to the Independent Engineer, whereupon the Independent Engineer shall send one of the copies to the Authority along with its comments thereon
- The Independent Engineer shall retain at least one copy each of all Drawings and Documents 10.4 received by it, including 'as-built' Drawings, and keep them in its safe custody.

Quantum pletion of its assignment hereunder, the Independent Engineer shall duly classify and tist all Drawings. Documents, results of tests and other relevant records, and hand them over to 10.5 the Authority or such other person as the Authority may specify, and obtain written receipt copies of the said documents shall also be furnished in micro film form or in such othermedium as may be acceptable to the Authority 4/01/12001

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