



**L E S O T H O
C O M M U N I C A T I O N S
A U T H O R I T Y**

REQUEST FOR PROPOSAL (RFP)

**CONSTRUCTION OF BASE TRANSCEIVER
SERVICES STATIONS PROJECT**

11 DECEMBER 2020

1 INTRODUCTION

The Lesotho Communications Authority (LCA) is the regulatory body for the communications sector in Lesotho. Its primary mandate is to facilitate the development and provision of affordable and sustainable communications services while promoting free and fair competition and ensuring consumer protection.

In pursuit of its mandate of facilitating development and provision of affordable and sustainable communication services, the Authority established the Universal Service Fund (USF) through the promulgation of the Lesotho Communications Authority (Universal Service Fund) Rules of 2009.

A universal service fund provides special funding to support access to communication (voice & broadband) services to the un-served and underserved population of our country. It is a mechanism that induces and enables a liberalised communications sector to extend infrastructure investment to rural and remote areas.

The objective of this project is to extend mobile telephony and mobile broadband services to communities and groups that are not currently covered by any of the existing operators in order to achieve the mandate of the LCA and the goals and objectives of the NSDP.

The areas that are being targeted in this phase of the BTS project are grouped into clusters of communities.

2 TENDER SPECIFICATIONS

The purpose of this RFP is to solicit proposals from qualified, professional and credible service providers for the design and construction of BTS stations, access road and power systems to facilitate expansion of telecoms services (voice and broadband) in un-served and underserved areas and communities in the identified districts.

The proposed site location should provide the best possible coverage and be in line of sight with the existing operator's network. The coordinates in the table below are indicative of the possible site locations.

Table 1: List of areas to be served

District	Area	Coordinates
Thaba Tseka	Mantšonyane	Lat -29.475094, Long 28.258947
	Ha Mpotjane, Ha Ntopo, 'Malebese, Sututsa, Ha Nthejane, Mocheng, Ha Long (Moreneng), Ntsirele, Ha Long, Ha Khoaele, Ha Long (Motse-Mocha), Ha Mputana, Ha Leteketa, Lihloaeleng, Ha 'Muso, Ha Letsela, Ha 'Mamokoto, 'Malehloana, Lekhalong (Ha Cheche), Liqoloeng, Ha Qalohe, Lefikaneneng, Ha 'Mutlanyana, Ha Matlotlo, Ha Moriana, Ha Apili, Machenche, Liponchong	
Maseru	Semonkong (Ha Phallang)	Lat -29.765484, Long 28.013834
	Ha Lechesa, Ha Sechache, Letlapeng, Ha Masia, Ha Monaheng, Ha Popa, Sekhutlong, Matsela-ha-beli, Tholang, Pontseng, Ha Lerotholi, Sethuha-Majoe, Mphatsoenyane, Matebeleng, Ha Tau, Ha Moqibi, Ha Phallang, Ha Makhele, 1 Primary School	
Mokhotlong	Khubelu (Molikaliko)	Lat -29.105170, Long 28.962443
	Ha Masasane, Likhutlong, Koung, Majakaneng, Lekhalong, Makhalaneng, Mafarung, Bookamela, Mahlasela, Sutumetsa, Nama-u-Lule, Matebeleng, 2 Primary schools and a health Centre at Molikaliko	

NB: The coordinates are indicative positions, they do not necessarily provide optimum coverage into the identified villages.

3 SCOPE

The scope of this tender includes the following four sections:

3.1.1 Tower structure:

Design and construction of a 40 meters ground-based tower (lattice structure).

3.1.2 Power system

Design and construction of solar power system shall consist of solar panel, solar charger and battery backup.

3.1.3 Fencing

Construct a galvanised palisade fence of 2.4m height and 14m x 14m.

3.1.4 Access road

Design and construct high difficulty access road up to the base station site.

4 TECHNICAL SPECIFICATIONS FOR THE TOWER STRUCTURE

The civil works for tower structures shall be in conformity with international standards. The quality of all the below materials and workmanship should clearly be linked to a relevant international standard or equivalent as shown in table 2 below.

Table 2: Technical Specifications

ITEMS	DESCRIPTION
Galvanising	EN ISO 1461: 2009 - A guide to hot dip galvanizing standard
Welding qualification	EN/ISO 2564 2004-2008 - Carbon fibre laminates
Steel fabrication	EN 1090-1 - Requirements for conformity assessment for structural components, EN 1090-2 -Technical requirements for the execution of steel structures
Welding coordination and Welding quality	ISO 14731 :2019 - Welding coordination
Design Criteria	BS 5950 Part 1-2000 -Steelwork design guide
Wind loading calculations	CP3 CHAPTER V Part 2 Wind Loads 1972 -Code of basic data for the design of buildings. Loading. Wind loads
Concrete	BS 8110: 1997 Parts 1, 2 and 3 - Structural use of concrete. Code of practice for design and construction
Bolts and nuts	BS 8110 -Structural use of concrete. Code of practice for design and construction
Code for tower masts	BS8100 - Structural use of concrete. Code of practice for design and construction
Steel section and plates	EN 10025-1 - General technical delivery conditions
Structural hollow steel sections	EN 10210-1 - Hollow Sections-Seamless Steel Pipe, EN 10219-1 -Cold formed welded structural hollow sections of non-alloy and fine grain steels. Technical delivery requirements
Guidelines for the selection of protective system for steel	EN ISO 12944 Parts 1 to 8 - Paints and varnishes — Corrosion protection of steel structures by protective paint systems
Protection against corrosion	EN 14713 - Zinc coatings — Guidelines and recommendations for the protection against corrosion of iron and steel in structures — Part 1: General principles of design and corrosion resistance

5 GENERAL SPECIFICATIONS

5.1 Tower structure

The design of the tower structure shall consider the location, adverse weather conditions and optimum coverage to the identified areas. The minimum requirements for the towers are as follows:

5.1.1 Structural design

- 5.1.2 Galvanizing
- 5.1.3 Antenna mountings
- 5.1.4 Feeder racks and cable trays
- 5.1.5 Paintings
- 5.1.6 Foundations
- 5.1.7 Access staircase and ladders
- 5.1.8 Earthing system and lightning protection
- 5.1.9 Signage and aviation light
- 5.1.10 Equipment slabs

5.2 Power systems

The base stations shall use the solar power system that will provide battery autonomy of 5 days and shall comprise of the following:

- 5.2.1 Solar arrays
- 5.2.2 Battery banks
- 5.2.3 Charging system
- 5.2.4 Output voltages of -48volts DC and 220volts AC

5.3 Site fencing

The site fencing shall comprise of the following:

- 5.3.1 Entrance gates of 2metres wide
- 5.3.2 Galvanised palisade of 14 x 14metres wide
- 5.3.3 Barbed wire above the palisade fencing
- 5.3.4 Warning signage

5.4 Access road

The construction of access road shall be responsive to the terrain per site/area. The road shall be a gravel with:

- 5.4.1 A ground crowned driving surface.
- 5.4.2 A shoulder area that slopes directly away from the edge of the driving surface.
- 5.4.3 A ditch.

6 SPECIFIC TERMS AND CONDITIONS

Bidders shall meet the following terms and conditions:

- 6.1 The proposal shall indicate the full details of what shall be supplied.

- 6.2 The proposal shall include four (4) references where similar assignments were undertaken, and should specify the contact person(s), telephone numbers, physical address and other salient details pertaining to the delivery.
- 6.3 The bidder must submit business profile and the following relevant certificates:
- 6.3.1 Valid Tax Clearance Certificate.
 - 6.3.2 Certified copy of valid Traders Licence certified at source.
 - 6.3.3 Certified copy of VAT registration certificate certified at source (*where applicable*).
- 6.4 The bidder shall submit full personal details and profiles or curriculum vitae of 3 key personnel that have relevant experience and knowledge of the service required.
- 6.5 The bidder shall pay a bid security of 10% of the proposed contract value, issued by a local bank.
- 6.6 For the site location:
- 6.6.1 Geographical coordinates for the proposed sites shall provide optimum overage to the identified villages
 - 6.6.2 The detailed coverage prediction maps shall be provided
 - 6.6.3 Microwave link design to the existing mobile network operator infrastructure shall be provided.
- 6.7 Project plan
A high-level project plan indicating deliverables and duration for the four items mentioned in the scope of work (in section 3) should be provided.
- 6.8 Tower structure drawings
- 6.9 Antenna mounting structure
- 6.10 Foundations drawings
- 6.10.1 Connection details
 - 6.10.2 Architectural and structural drawings for equipment slab
 - 6.10.3 Architectural and drawings for the site fencing works with gate
 - 6.10.4 Site plan
 - 6.10.5 Stress analysis by the professional engineer
 - 6.10.6 Building structure suitability and validation analysis report
 - 6.10.7 Soil investigation report and any other tests required for the purpose of the design of tower or foundation

7 GENERAL TERMS & CONDITIONS

7.1 A mandatory site visit will take place at the identified sites on the following dates:

DISTRICT	AREA	COORDINATES	DATE	TIME
Mokhotlong	Khubelu Valley	Lat -29.105170, Long 28.962443	14 January 2021	1200 hrs
Thaba-Tseka	Mants'onyane	Lat -29.475094, Long 28.258947	18 January 2021	1200 hrs
Maseru	Semonkong	Lat -29.765484, Long 28.013834	21 January 2021	1200 hrs

7.2 Bidders should have registered on site by 11h45, late attendants shall not be accepted.

7.3 Any requests for clarification on the RFP must be addressed in writing to Chief Executive Officer at lca@lca.org.ls at least five days prior to the deadline. The Authority will respond to written inquiries or queries only.

7.4 The bids must be submitted at LCA Offices on or before **23 February 2021 by 12h00** and addressed to:

The Chief Executive Officer
Lesotho Communications Authority
30 Princess Margaret Road
Old Europa
P.O. Box 15896
Maseru 100
Lesotho

7.5 All bids shall be physically delivered, neither electronic nor late submissions will be accepted.

7.6 The bidder must submit the original and four copies of bid proposals with bid envelopes clearly marked as follows:

ORIGINAL and COPIES and "Construction of base transceiver stations projects-network expansion".

7.7 The bid envelope should not bear any identification of the bidder.

7.8 Opening of bid documents will be on the **23 February 2021 at 14h30** at LCA premises.

7.8.1 Interested bidders are invited for the bid opening and only one representative from a bidder may attend.

7.8.2 The proposal shall be valid for 90 working days from the submission date.

7.9 Upon the award of the contract, the preferred bidder shall be expected to obtain building permit, environmental permit, and civil aviation permit from relevant authorities.

8 DISCLAIMER

8.1 Lesotho Tax Laws shall be applicable.

8.2 The financial proposal shall clearly state the total bid price in Lesotho Loti (LSL) and all prices shall include VAT where applicable.

8.3 All bidders must note that the LCA shall make payment by milestones.

8.3.1 A retention of 10% of the total project cost shall apply, which will be payable after expiry of the standard defect liability period of one year.

8.3.2 All proposals shall specify terms and conditions of payment, which will be considered as part of the bid award.

8.4 LCA shall not be bound to accept the lowest bidder.

8.5 This RFP does not commit LCA to pay any expenses incurred by the bidder in the preparation of responses to this invitation or for attending meetings, if any at all.

8.6 LCA reserves the right to cancel or withdraw this request for proposals as a whole or in part without furnishing any reasons and without attracting any liability.

9 OTHER DETAILS

9.1 The selected bidder will be notified in writing and invited for contract negotiations.

10 PREPARATION GUIDELINES

The bidder shall submit both technical and financial proposals separately.

11 THE FINANCIAL PROPOSAL

The financial proposal shall include the cost of the following;

- 11.1.1 Tower structure
- 11.1.2 Power system
- 11.1.3 Fencing
- 11.1.4 Access road