

RFI 00005-2014 FOR THE RESPONDENTS TO PRESENT LAMPPOST SOLUTIONS FOR TELKOM MOBILE NETWORK

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Description:

Invitation to respondents to present Lamppost solution for Telkom Mobile Network
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1. Requirements

- 1.1 The following document acts as a guideline for the Service Provider (SP) to implement the design and construction of a lamp post solution.
- 1.2 The SP is invited to present a solution with a costing module to Telkom Mobile.
- 1.3 The lamp post solution will be a single technology DBS solution, meaning that the antenna system will be for the LTE network only and the radio equipment which will be used is Remote Radio Units (RRU's.) The specification of the antenna will be available in Annexure A and the specification of the RRU's will be available in Annexure B in the bid document.
- 1.4 The solution needs to be designed in line with all South African Regulation requirements for structures of this particular nature. Telkom Mobile will require Engineering sign off and Engineering certificates. The following design codes and criteria's can be followed.
- 1.5 The structure or any component thereof shall be designed to safely and effectively resist all loads and environmental influences that may reasonably be expected to act upon it, having due regard for the expected service life of the structure. Structural design shall be carried out according to Limit States design, based on the following codes and all applicable parts thereof:
 - Monopoles:
 - SANS 10225: The design and construction of lightning masts.
 - SANS 10160: Basis of structural design and actions for buildings and industrial structures.
 - SANS 10162: The structural use of steel.
 - Lattice Towers
 - SANS 10160: Basis of structural design and actions for buildings and industrial structures.
 - SANS 10162: The structural use of steel.
 - Concrete
 - SANS 10100: The structural use of concrete
- 1.6 No other design code will be accepted for the structural design of the towers. The welding requirements shall be to AWS D1.1.

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- 1.7 The Ultimate and Serviceability Limit States of a structure needs to be determined according to the applicable codes of practice, which is described below in detail.
- 1.8 Ultimate limit states are those concerning the safety of the structure and correspond to the maximum load-carrying capacity and include the following:
- Loss of equilibrium of the structure considered as a rigid body (e.g. overturning and uplift)
 - Loss of load-bearing capacity of structural members due to failure
 - Serviceability limit states are those which restrict the normal use or affect durability of the structure and include the following:
 - Excessive deflection and rotation of the structure
 - Failure due to fatigue loading
- 1.9 The Lamp Post solution should be a pre-manufactured solution and pre-tested to make the installation of the lamp post a rapid deployed solution. No wet works or welding process will be permitted on sites.
- 1.10 Basic requirements of the Lamp Post are:
- 15 meter solution, complete solution may not exceed 14.99 meters.
 - Precast plinth and pre-assembled mast.
 - RF system should run in the pole, no cables can be exposed.
 - Plinth should make use of sleeves to interconnect cables systems
 - Earth points should be supplied on mast and pre cast foundation
 - AW light should be supplied when required. Mast should be able to mount a AW light and power cables
 - Top flange must match the antenna flange layout
- 1.11 The standard line items on the BOQ will be as follows, the SP may add additional items if so and when required:
- Precast foundation with hold down bolts
 - Pole solution with flanges and mounting bolts
 - Battery backup and rectifier with distribution panel. (1 Kw solution)
 - Mounting brackets for RRU's and vandal bracket to protect the RRU's
 - AC boundary box, for single phase and generator access point with AC cable to connect up to Battery backup
 - 12 x half inch low loss RF cables with connectors
 - All sundries (for example :Labels and cable ties)
 - AW light with cable system and termination.
- 1.12 Each Item should be presented on separate detailed drawing and quoted on separate line items. The SP is welcome to use his/her own initiative and add or change components to make the solution more cost effective and enhance the aesthetic appearance of the solution.
- 1.13 Telkom Mobile requires the installation services of the SP for the solution and erecting of the mast. The following items are listed on the quotation:
- Transport of equipment to site,
 - Truck and crane hire if require
 - Civil work

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- Plinth and earth system installation
 - Mast installation
 - Antenna installation
 - RF system installation
 - RRU installation and connecting of all cables
 - RRU vandal bracket installation
 - Battery backup installation
 - AC box installation and connection
- 1.14 The quotation must provide a detailed breakdown of all line items and costing associated to that specific line item. The SP may add additional line items if so and when deemed necessary. The quotation template is attached in Annexure C.
- 1.15 The SP will also be required to submit the following documentation:
- Drawings of solution
 - Specification of solution
 - Quotation sheet
- 1.16 Telkom Mobile invites the SP to present any additional information and solutions up on presentation for Lamp Post solutions.
- 1.17 The SP may schedule a workshop, if needed, with Telkom Mobile to discuss the solution.

2. Bid Document Collection

The bid document can be collected from the Telkom SA SOC Ltd Tender Office at the following address:

**Telkom Tender Office (below the overhead bridge)
Lower ground floor of Telkom Tower South,
179 Johannes Ramokhoase Street (formally known as Proes Street),
PRETORIA CBD**

Contact Person: **Benji Ramatlakana**
Contact details: **(012) 311 3364**