

## APPENDIX K: NEED AND DESIRABILITY

The EIA Regulations of 2014, as amended, require that the need and desirability of a proposed project are considered and evaluated against the principles of sustainability. This requires investigation of the effect of the project on social, economic and ecological systems, and places emphasis on consideration of a project's justification. Various means for assessing the needs have been investigated in assessing the proposed projects need and desirability in the context of both the greater community, as well in the context of the proponent.

The EAPs and specialists, through the interrogation of planning documents and, where these planning documents are not available - using best judgment, have considered the anticipated needs and interests of the broader community.

In summary, supporting grid connection infrastructure (I.E. RADIO MASTS FOR COMMUNICATION) for wind energy facilities is desirable as it:

- Creates a more sustainable economy by promoting South Africa's energy policy towards energy diversification.
- Reduces the demand on scarce resources such as water by promoting energy generating facilities which are less resource intensive.
- Assists in meeting international commitments to carbon emission targets in line with global climate change commitments.
- Reduces pollution by using 'cleaner' energy generating mechanisms and reducing the demand on carbon-based fuels.
- Promotes local economic development by creating jobs and promoting skills development.
- Enhances energy security by assisting in diversifying generation (since the project will service authorised wind energy facilities).

The proposed radio mast is required by Eskom Holdings Ltd in order for the authorised Linking Station to be able to communicate via Radio frequency to other Linking stations in the area.

No other design or layout alternatives have been investigated. There are no design / technology alternatives for the radio mast as Mainstream were provided with the Scope of Works (SoW) for the radio mast from Eskom and must adhere to this (must adhere to Eskom Standard). Eskom advised that the mast needs to be at least 85m in height. The requirements / specifications for the radio mast being proposed (up to 90m tapered steel lattice with either square, 4 leg, or triangular, 3 leg) is what was requested by Eskom, based on their requirements / standards (i.e., Eskom requested this). This is based on specific requirements following a comms study which Eskom undertook. There is no fibre on the Eskom line and no fibre alternatives. The requested mast thus needs to be a radio mast. There will be no guy wires used and the radio mast will be a self-supporting structure (as it typically is).

The preferred property and site alternative is on Portion 1 of Farm No. 15 of Trakaskuilen (C0610000000001500001) located on the Beaufort West Cluster of wind developments, approximately 60km south of the town of Beaufort West in the Prince Albert Local Municipality, within the Central Karoo District Municipality of the Western Cape Province.

No other locations (i.e., project sites) were considered for the placement of the Radio Mast, as this placement is dependent on the location of Mainstream's authorised Beaufort West (12-12-20-1784-1-AM3) and Trakas (12-12-20-1784-2-AM3) Wind Farm projects. As mentioned, the proposed project will service the above-mentioned authorised wind farm projects (including their associated electrical infrastructure). If the project does not receive EA, then the existing electricity supply to the area as well as future economic development will be limited and compromised.

The proposed project is also viewed in a positive context due to the potential for employment creation within the local community. It should also be noted that the cumulative effect of the proposed project and other developments in the area has the potential to result in positive socio-economic opportunities for the region. The proposed project, in conjunction with the authorised Beaufort West cluster of wind developments (since intrinsically linked), will also address electricity constraints within both the local and district Municipalities by generating, distributing and evacuation a continued realisable source of electricity. Improved electrification, increased electricity supply to houses and businesses and investment in renewable energy developments are strategic objectives of both the District and Local Municipality.

It should be noted that on 28 October 2021, the Minister of Mineral Resources and Energy announced the Preferred Bidders of the Round 5 Renewable Energy Independent Power Producer Procurement Programme (REIPPPP) (see Section 2.2.10 for explanation on the REIPPPP) and both the Beaufort West (12-12-20-1784-1-AM2) and Trakas (12-12-20-1784-2-AM2) Wind Farm projects (which form part of the Beaufort West Cluster of wind developments) received Preferred Bidder status. These wind energy facilities have now become Strategic Infrastructure Projects (SIPs) (i.e., SIPs 8 and 10) and therefore a reduced 57-day decision-making timeframe for the competent authority is now applicable, instead of the usual 107 days. SIPs 8 and 10 target the development of green energy in support of the South African economy and the provision of electricity transmission and distribution respectively.

**DUE TO THE NATURE OF THE NEED, THERE ARE CURRENTLY NO OTHER ALTERNATIVES WHICH CAN PROVIDE THE SERVICE REQUIRED. AS NO ALTERNATIVES ARE AVAILABLE TO AVOID IMPACTS, MITIGATION MEASURES ARE PROVIDED WHICH WILL MINIMISE NEGATIVE IMPACTS AND ENHANCE POSITIVE IMPACTS. THE PROPOSED RADIO MAST IS CONSIDERED TO HAVE LONG TERM POSITIVE ECONOMIC AND SOCIAL IMPACTS WHICH WILL OUTWEIGH THE NEGATIVE IMPACTS FROM BOTH MUNICIPAL AND EIA PLANNING PERSPECTIVES.**